

glacial striations, as if the materials, during the progress of submersion, had been derived from older moraines, and, being water-worn by attrition on the margin of the sea, the original sharpness of the scratches had been well nigh obliterated.

At various levels on the low ground between Caernarvon and Criccieth, on the north coast of Cardigan Bay, there are extensive deposits of sand and gravel, well stratified, and much resembling those of Moel Tryfaen, but in them I have not yet found sea-shells. They are overlaid by boulder-beds, and the same is the case with similar half-consolidated strata on the sea-cliffs of Anglesea at Lleiniog, and beyond, between Beaumaris and Penmon near Puffin Island.

Putting all these facts together I see no reason to get rid of the hypotheses published by me in 1859,¹ that, as a slow submersion of the land took place, the diminishing glaciers, still descending to the level of the sea, deposited their moraine-rubbish there, which matter was often remodelled by the waves to form sand and gravel. Gradually sinking more and more, and sufficient cold still continuing, the minor glaciers, descending from groups of icy islands, entered the sea and broke off in icebergs, which, as they melted, deposited their stony freights on the sands and gravels that more or less covered the bottom of the sea.

To what depth this progressive submersion may have reached I cannot say, but I think it cannot have been less than from 1,200 to 1,500 feet. In corroboration of this it is worthy of note that the Rev. Maxwell Close has described sea-shells as occurring at the height of 1,300 feet on the Wicklow Hills. The features of the

¹ 'Old Glaciers of North Wales, and Peaks, Passes, and Glaciers.'