

mountains beneath the waters of the sea is not deficient, as in Scotland, in that complete demonstration which the presence of marine shells affords. The late Mr. Trimmer discovered such shells on Moel Tryfane, in North Wales, in drift elevated more than 1,300 feet above the level of the sea. It appears from his observations, and those of the late Edward Forbes, corroborated by others of Professor Ramsay and Mr. Prestwich, that about twelve species of shells, including *Fusus bamfius*, *F. antiquus*, *Venus striatula* (Forbes and Hanley), have been met with at heights of between 1,000 and 1,400 feet, in drift, reposing on a surface of rock which had been previously exposed to glacial friction and striation.* The shells, as a whole, are those of the glacial period, and not of the Norwich Crag. Two localities of these shells in Wales, in addition to that first pointed out by Mr. Trimmer, have since been observed by Professor Ramsay, who, however, is of opinion that the amount of submergence can by no means be limited to the extreme height to which the shells happen to have been traced; for drift of the same character as that of Moel Tryfane extends continuously to the height of 2,300 feet.†

Rarity of Organic Remains in Glacial Formations.

The general dearth of shells in such formations, below as well as above the level at which Mr. Trimmer first found them, deserves notice. Whether we can explain it or not, it is a negative character which seems to belong very generally to deposits formed in glacial seas. The porous nature of the strata, and the length of time during which they have been permeated by rain-water, may partly account, as we hinted in a former chapter, for the destruction of organic remains.

* No less than fifty shells, all of living species, have recently (1863) been found on Moel Tryfane. See Appendix G.
† Ramsay, Quarterly Geological Journal, vol. viii. p. 372, 1852.