

their native beaches, have been raised 10, 20, 100, or several hundred feet above high water mark. Within the reach of history, slight displacements of the relative level of land and sea have taken place, as the temple of Serapis near Puzzuoli, Lisbon, Port Royal, are supposed to prove. But these phenomena, connected with local earthquakes and volcanic eruption, are small and limited in comparison with the class of facts noticed above; which appeared to M. Brongniart of so general a character as to justify a supposition that the ocean waters had every where suffered a depression of level, even since the creation of existing races of mollusca, and the establishment of the main features of physical geography, though anterior to historic times. To this view of M. Brongniart it is, apparently, a fatal objection, that the *levels* at which the raised beaches appear above the sea, are extremely varied, even on points of the coast of the same country, and much more when we compare distant coasts; whereas, upon his view of a general lowering of the surface of the sea by one depression of the crust of the globe (*affaissement de la croûte du globe dans un point*), should have left accordant indications of the former height of the water.

The following examples are selected to illustrate the nature of these deposits:—

On the coasts of Great Britain, phenomena of this kind have been observed in the valleys of the Forth (Bouè, Maclaren) and the Clyde (Laskey), chiefly in the form of low terraces considerably above the actual flow of the tide; on the coast of Lancashire, about Preston (Gilbertson); at the base of the Forest Hills, and other places in Cheshire (sir P. Egerton); near Shrewsbury; on the Mersey at Runcorn; and on Moel Tryvaen, near Caernarvon (Trimmer).

That an uplifting of the shores of the Moray Frith has taken place subsequent to its having assumed its present outline, is considered by Mr. Prestwich as proved, by the existence, in several places, of a raised beach. In Banffshire, this beach varies from six to twelve feet