

sition of the most recent tertiary deposits. On the English coast there are not many examples; but they are sufficiently numerous to prove that it was in many places upheaved with the beaches that had been formed by the washing up of shells, pebbles, and other marine productions. There is a good example at Plymouth, and another on the Devonshire coast, near Babbacombe, and also one on the opposite coast, in the Island of Portland. We know that some geologists are unwilling to admit that these ancient beaches were produced by elevation, but it is really no objection to the theory that they only occur in small masses here and there; for it may be easily admitted that the fractures produced by the elevation would tend to destroy the continuity of beds, and that the destroying agents which have for ages since that event been acting upon our coasts, have, in all probability, destroyed the greater portion of the masses that remained as evidences of the event. There is reason to believe that these beaches were formed after the deposition of the crag, if we may attempt to determine the relative ages of rocks by the organic remains they contain, and that the force which elevated them was one of the last dying throes of that intense volcanic power which had been long before rapidly expending its energy, and is now so weakened as to produce comparatively small and always local effects.

But although the changes in the distribution of land and water have, since the period when the beaches were raised, been effected by moderated agents, yet we know that causes do exist by which districts once covered with water are delivered up to man, while, on the other hand, the sea makes rapid encroachments upon that which has been for centuries his patrimony. The effects of these causes are produced so slowly that they frequently pass unnoticed from generation to generation, and yet they are effecting mighty changes in the distribution of land and water; and, if sufficient time be allowed, will ultimately give a new character to the physical appearance of the earth's surface.

The subjects embraced in this chapter are too extensive, and the space for discussion is too narrow, to admit a detailed description of the causes which are now effecting an alteration in the distribution of land and water; and it is the less necessary, because we have examined the subject with some particularity in our "Alphabet of Theoretical Geology." It