

mountains are the most recent."—From the imperfect knowledge at present possessed of the geology of central Asia, and of the structure of the mountains, it would be unwise to draw any general conclusions respecting the elevation of the different mountain chains, or of the elevated plateau from which they rise; but we can scarcely conceive, that the whole of the mountain chains, and this elevated plain in central Asia, were raised by one sudden upheaving force: it seems more probable, that the expansion of so large a portion of the earth's surface, and its depression in other parts, were not effected in a very short period; but still the convulsive intermissions of such an upheaving, while in progress, must have produced tremendous effects. If this elevation of central Asia took place after the tertiary epoch, perhaps it may not have an earlier date than the existence of the human race, and its destructive effects on the surrounding countries, may have given rise to the tradition of an extensive deluge, still preserved among the most ancient eastern nations, and referred to in the writings of Moses.

The elevations of limited portions of the earth's surface, at a distance from any known volcanic agency, are not uncommon. Loose stones or shingles of an ancient sea beach, are found at heights considerably above the present level of the sea, in many parts of England. Beds of gravel and diluvial sand, with marine shells, were recently found on the summit of Moel Tryfane, near Caernarvon, at the height of 1000 feet above the level of the sea: the shells are said to resemble the broken shells on the adjacent beach. On the coast of Norway and Sweden, Von Buch and M. Brongniart discovered deposits of shells at various heights above the level of the sea; this would indicate that the rocks have been elevated at a recent period, though they are chiefly composed of gneiss and primary formations. In countries that are adjacent to volcanic districts, instances of the repeated elevation and submersion of the land are not uncommon. In the first volume of Mr. Lyell's *Principles of Geology*, many interesting facts of this kind, in Calabria and Sicily are fully stated. The most remarkable elevation of the ground that has been recorded in modern times, is that which took place, in the year 1822 (see Chap. V.,) on the coast of Valparaiso, in which the bed of the sea was raised permanently above its surface, over an extent of 100 miles.

It may be truly said that these instances of elevation, present but a feeble resemblance to the mighty upheaving forces which have elevated whole continents; but I before stated, that it is highly probable the emersion of continents from the ocean, was a slow and long continued process. We have fewer recent instances of subsidence on an extensive scale than of elevation; though cities have been engulfed and their place occupied by lakes, and the bed of the sea near the coast, has been deepened as well as elevated by earthquakes. In addition to this, there are submarine forests on some