

between the most buoyant parts of the interior, and the weight of the superior deposit; whence would follow an intermixture of character. The same might occur from the mere action of water in motion, on the mutual confines of strata yet free to move.

CHAP. VIII.

On the Dispositions, Fractures, and dislocations, of Strata.

WHEN we find the stratified rocks forming the summits of the highest mountains, elevated many thousands of feet above the level of the sea, and when we suppose that the objects which we are contemplating were once covered by a fluid, we are strongly impressed with the changes which the relative levels of the water and the land must have undergone, with the revolutions which the surface of the earth has experienced. And when we find the remains of shell-fish imbedded in these strata, we cannot hesitate to admit that these rocks have once been covered by the Ocean. When lastly we observe that those beds which must once have been horizontal are now vertical, that they are inclined, broken, bent, and dislocated, in innumerable ways, we are forcibly led to conclude that their present distance from the sea has been accompanied by violent alterations in the form of the surface, and that it has been produced by the action of enormous powers. An inquiry into the probable nature and causes of all these changes, will form a proper conclusion to a description of each of the various phenomena which the facts themselves present.

The horizontal position of strata is not incompatible with their situation on the summits of the highest mountains; neither are the inclined, nor even the vertical strata, excluded from the lowest grounds.