

at various heights, from 10 to 200 feet, and on the side of the Bothnian Gulf, between Stockholm and Gefle, deposits containing fossil shells of the species which now inhabit the brackish waters of that sea. These occur at various elevations, from one to a hundred feet, and sometimes extend fifty miles inland. The shells are partly marine and partly fluviatile; the marine species are identical with those now living in the ocean, but are dwarfish in size, and never attain the average dimensions of those which live in water sufficiently salt to enable them to reach their full development. The specimens before you were collected by Mr. Lyell at Uddevalla, in Sweden, from the summit of cliffs twenty feet above the level of the sea; they consist of recent marine species, such as inhabit the neighbouring waters.

Of the reality of these changes in the relative level of the land and of the Northern ocean, there cannot exist a doubt; but the mind is so accustomed to associate the idea of stability with the land, and of mutability with the sea, that it may be necessary to offer a few additional remarks on these highly interesting facts. As it is the property of all fluids to find their own level, it is obvious that if the level of the sea be elevated or depressed in any one part, that elevation or depression must influence the whole surface of the ocean, and the level therefore cannot be affected by local causes. But movements of the land may take place, and