

confirmed afterwards by Hall's experiments, to which I shall allude in the sequel.

The next step in Hutton's reasoning was that whereby he sought to account for the present position of the strata which, originally deposited under the sea, are now found even on mountain-crests 15,000 feet above sea-level. We have seen how Werner looked on his vertical primitive strata as having been precipitated from solution in that position, and as having been uncovered by the gradual subsidence and disappearance of the water. Hutton attacked the problem in a different fashion. He saw that if the exposure of the dry land had been due merely to the subsidence of the sea, it would involve no change in the positions of the strata relatively to each other. What were first deposited should lie at the bottom, what were last deposited, at the top ; and the whole should retain their original flatness.

But the most cursory examination was, in his opinion, sufficient to show that the actual conditions in nature were entirely different from any such arrangement. Wherever he went, he found, as Steno had done, proofs that the sedimentary strata, now forming most of the land, had in large measure lost the horizontal or gently inclined position in which sedimentary deposits are normally accumulated. He saw them often inclined, sometimes placed on end, or even stupendously contorted and ruptured. It was manifestly absurd, as De Saussure had shown in the Alps, to suppose that pebbles in vertical beds of conglomerate could ever have been deposited in such positions. And if some of the vertical strata could thus