

the work done, must have been the course of operations imposed by the conditions of a sinking land on the icebergs of the glacial period: they began their special course of action at the hill-foot, and operated upon its surface upwards as the sea arose. Again, Mr. Darwin's reasonings were mainly founded on the significant fact, that in numerous instances travelled boulders of the ice period may be found on levels considerably higher than those of the rocks from which they were originally torn. And though cases of transport from a lower to a higher level could and would take place during a period of subsidence, when the sea was rising or the land sinking, it is impossible that it could have taken place during an elevating period, when the sea was sinking or the land rising.<sup>1</sup> A flowing sea, to use a simple illustration, frequently carries shells, pebbles, and sea-weed from the level of ebb to the level of flood;—it brings them from a low to a high level: whereas an ebbing sea can but reverse the process, by bringing them from a high level to a low.

For the facts and reasonings of Sir Charles Lyell on the subject, I must refer you,—as they are incapable of being abridged without being injured—to that portion of his first work of *Travels in America* which treats of the Canadian Lake District. But the following are his conclusions:—*'First,'* he says, 'the country acquired its present geographical configuration, so far as relates to the older rocks, under the joint influence of elevating and denuding operations. *Secondly,* a gradual submergence then took place, bringing down each part of the land successively to the level of the waters, and then to a moderate depth below them. Large islands and bergs of floating ice came from the north, which, as they grounded on the coast and on shoals, pushed along all loose materials of sand and pebbles, broke off all angular and projecting points of rock, and, when fragments of hard

<sup>1</sup> See Mr. Trimmer's last paper on Boulder-Clays, *Journal of the Geological Society*, May 1858, p. 171.—W. S.