must, however, remark on these last-mentioned cases that, on the south-east border of Wales certainly, and in Devonshire probably, there is no observable unconformity between the old red and the Silurian rocks, and hardly any between these and the Plynlymmon series.

Were the displacements thus shown to have happened in the bed of the sea over so large a portion of the British islands, sudden or gradual? To decide whether violent uplifting, or a gentle intumescence of the rocks, lifted the Grampians or the Cumbrian mountains, would be difficult in the present state of our knowledge; yet there are considerations which would render it probable that a considerable time elapsed in the process. Amongst others, this appears worthy of notice: the secondary strata, around these and other tracts, dip at high angles from the centre or axis of the older rocks, the most modern rocks occupying the lowest ranges; and thus appear to teach us that the elevatory action, whatever might be its first violence, was continually exerted in the same localities, late into the secondary period.



The surface of the earth has, however, undergone since so many changes, that it is difficult to say how far this argument can be safely trusted. Another highly interesting problem arises out of the admission that all the displacements of rocks, previously noticed, were nearly contemporaneous : they are found to be all raised on axes nearly parallel to a line from S. W. to N. E. ; and it is required to be determined whether this proximate parallelism of contemporaneous axes of elevation is a general law of the phenomena. M. E. de Beaumont is the geologist who has most strenuously advocated the affirmative of this question ; but it is certain that more

149