

to those of Kirkdale, and among which hyænas' bones and teeth abound. We may therefore admit, as a thing sufficiently proved on the evidence of caves and ossiferous gravel beds, that Kirkdale, and some parts of the neighbouring country, were dry land in the "elephantine period" of the northern zones of the world. But was the whole of this part of Yorkshire dry land? or was the vale of Pickering a lake, as Dr. Buckland conjectures, on whose margins lived elephants, hippopotami, &c.? an arm of the sea, as the occurrence of a raised shelly beach at Speeton may perhaps lead some to suppose? or a strait connecting the German Ocean with the water which may be imagined to have flowed down the vale of York from the Tees to the Humber, according to the views of some authors on the distribution of diluvium?

Whatever may have been the condition of these comparatively low lands, there can be no doubt that, above the level of Kirkdale Cave (itself only 200 feet above the level of the sea), the land in the N. E. of Yorkshire was wholly dry at the period of the existence of elephants; and this is a point of great importance among the many partial truths which must be established before we can look for a general theory of diluvial deposits.

General Considerations on Diluvial Phenomena.

It will appear from what has been said, that we look upon the erratic blocks, ossiferous gravel and clays, bone caves, and fissures, as phenomena related to a certain geological period, and a particular set of dynamical agencies. Such effects are not, at this day, in progress; nor, in general, can we conceive the possibility of their being produced by the operation of existing agencies operating with their present intensities, or in their present directions. Compared with tertiary phenomena, we must allow that the pebbly conglomerates on the flanks of the Alps are really detrital deposits of an earlier era; and it seems not at all improper to class under