

great river flowed into the estuary, through forests of large endogenous plants, tenanted by the iguanodon, *hy-læosaurus*, and other large land reptiles. The limited range of the Wealden deposits, their quick termination toward the north-west and south-west, and their expansions, though feeble, to Beauvais and Boulogne, seem to render the supposition of a single river flowing from the west less probable than the concurrence of partial streams from the south and east, with a great current from the north. May we venture to suppose that the primary tracts of the Scandinavian peninsula and Scotland, with other land now sunk beneath the German Ocean, has been the source of most of the arenaceous and argillaceous deposits of the carboniferous, oolitic, and Wealden formations of England? In this point of view, the local strata of Brora, the thick coal series of Bornholm, the oolitic coal tracts of Yorkshire and Westphalia, the Wealden of Boulogne, Beauvais, Sussex, Dorset, Wilts, are all partial and local deposits due to a similar succession of causes, and arising from the same or neighbouring physical regions, as the materials of some of the older coal strata. In Bornholm, coal occurs with marine beds of all geological ages from the transition era to the cretaceous group; and the dependence of its deposits on the waste of the Scandinavian mountains is decided. The dependence of the other deposits on the waste of land in the north is a probable inference; and if we imagine, what is probably true, that the Scottish and Scandinavian coasts were once united, the whole of the phenomena are intelligible as varied deposits on the shores of one limited sea.

The distinction of quantity between the few oolitic and wealden plants, and the vast heaps of vegetable reliquæ preserved in the older coal strata, is important, and might be explained as an effect of the diminution of the quantity of carbonic acid gas in the atmosphere, did not the uncertainty of our knowledge of the position of the ancient land, and the too local occurrence of the phenomenon, prohibit the application of such general views. It is supposed to be certainly proved (Buckland's Bridg-