

from the latter phase to that of map 41, and finally to still greater accessions of land. During this last period the passage of the Germanic flora into the British area took place, and the Scandinavian plants, together with northern insects, birds, and quadrupeds, retreated into the higher grounds.

Judging from the evidence at present before us, the first appearance of Man, when, together with the Mammoth and woolly rhinoceros, or with the *Elephas antiquus*, *Rhinoceros hemitaechus*, and *Hippopotamus major*, he ranged freely from all parts of the continent into the British area, took place during this second continental period.

Fourthly, the next and last change comprised the breaking up of the land of the British area once more into numerous islands, ending in the present geographical condition of things. There were probably many oscillations of level during this last conversion of continuous land into islands, and such movements in opposite directions would account for the occurrence of marine shells at moderate heights above the level of the sea, notwithstanding a general lowering of the land. To the close of this era belong the marine deposits of the Clyde and the Carse of the Tay and Forth, before alluded to, pp. 47, 51, 54.

In a memoir by Professor E. Forbes, before cited, he observes, that the land of passage by which the plants and animals migrated into Ireland consisted of the upraised marine drift which had previously formed the bottom of the glacial sea. Portions of this drift extend to the eastern shores of Wicklow and Wexford, others are found in the Isle of Man full of arctic shells, others on the British coast opposite Ireland. The freshwater marl, containing numerous skeletons of the great deer, or *Megaceros*, overlies in the Isle of Man that marine glacial drift. Professor Forbes also remarks that the subsequent disjunction of Ireland from England, or the formation of the St. George's Channel, which is less than 400