CHAPTER XIII.

CHRONOLOGICAL RELATIONS OF THE GLACIAL PERIOD AND THE EARLIEST SIGNS OF MAN'S APPEARANCE IN EUROPE.

CHRONOLOGICAL RELATIONS OF THE CLOSE OF THE GLACIAL PERIOD AND THE EARLIEST GEOLOGICAL SIGNS OF THE APPEARANCE OF MAN—EFFECTS OF GLACIERS AND ICEBERGS IN POLISHING AND SCORING ROCKS—SCANDINAVIA ONCE ENCRUSTED WITH ICE LIKE GREENLAND—OUTWARD MOVEMENT OF CONTINENTAL ICE IN GREENLAND—MILD CLIMATE OF GREENLAND IN THE MIOCENE PERIOD—ERRATICS OF RECENT PERIOD IN SWEDEN—GLACIAL STATE OF SWEDEN IN THE POST-PLIOCENE PERIOD—SCOTLAND FORMERLY ENCRUSTED WITH ICE—ITS SUBSEQUENT SUBMERGENCE AND RE-ELEVATION—LATEST CHANGES PRODUCED BY GLACIERS IN SCOTLAND—REMAINS OF THE MAMMOTH AND REINDEER IN SCOTCH BOULDER CLAY—PARALLEL ROADS OF GLEN ROY FORMED IN GLACIER LAKES—COMPARATIVELY MODERN DATE OF THESE SHELVES.

THE chronological relations of the human and glacial periods were frequently alluded to in the last chapter, and the sections obtained near Bedford (p. 164), and at Hoxne, in Suffolk (p. 168), and a general view of the Norfolk cliffs, have taught us that the earliest signs of Man's appearance in the British Isles, hitherto detected, are of post-glacial date, in the sense of being posterior to the grand submergence of England beneath the waters of the glacial sea. But after that period, during which nearly the whole of England North of the Thames and Bristol Channel lay submerged for ages, the bottom of the sea, loaded with mud and stones melted out of floating ice, was upheaved, and glaciers filled for a second time the valleys of many mountainous regions. We may now therefore inquire whether the peopling of Europe by the human race and by the mammoth and other mammalia