

But in the great belt, nearly eighty degrees in breadth, which, encircling the globe from east to west, includes with the torrid the warmer portions of the temperate zones, they have scarce any existence at all, or exist at least in different forms and exceedingly reduced proportions. The superficial deposits, in their most characteristic conditions, are deposits of the colder portions of the globe, and in many parts indicate that there prevailed during their formation a much severer climate than now obtains in the regions in which they occur. The shells which they contain in Britain, for instance, though almost all of existing species, are many of them such as are not now to be found in the British seas, but in seas about ten degrees farther to the north ; and there is evidence that the line of perpetual snow must have descended at the time to a lower level than that attained by our second-class hills, and that almost every Highland valley had its glacier. They represent, too, vast periods of time ;—earlier periods, during which the land gradually sank, till only its higher eminences were uncovered, and great floats of icebergs went careering over its submerged plains and lower hills ; and later periods, during which the land as gradually arose, after apparently many pauses and oscillations, until at length, when it had reached a level scarce eighty feet higher than that which it at present maintains, the climate softened, and the glaciers which had formed in the later times among its hills ultimately disappeared. Beds of sea-shells of the boreal type, that belong to those ice ages, may be still found occupying the places in which they had lived and died, many miles inland, and hundreds of feet over the sea-level. Boring shells, such as the pholadidæ, may be detected far out of sight of the ocean, still occupying the cells which they had scooped out for themselves in hard limestone or yielding shale ; and serpula and milliporate encrustations may be seen still adhering to rocks raised to giddy elevations over the sea. The group of mammals,