

bably as thick as that in the north of Greenland in the present day. During this time all the Highland mountains were literally buried in ice, which, partly flowing eastward, joined a vast ice-sheet coming westerly and southerly from Scandinavia. In another direction a thick sheet of the same Highland ice pressed southward into the valley of the Tay, where a low stratum of the glacier passed eastward to the sea, while the remainder pressed up the slopes and across the summits of the Ochil Hills, and on to the valley of the Forth, where it found a vent for a further outflow to the east, at a time when the Bass Rock, Fidra Island, Inch Keith, Inch Colon, and all the other beautiful islands of the Firth of Forth, lay as mere *roches moutonnées*, buried so deep under glacier-ice that it overflowed the eastern part of the Lammermuirs and spread southward into Northumberland. Some of these islands still retain their ice-worn surfaces, while others, such as the Bass and Fidra, have become scarred and cliffy by the action of weather and the sea (figs. 80 and 81). Another part of the great glacier-ice passed west across the Hebrides, and southerly into the Firth of Clyde, where, passing over Bute, and smothering and smoothing those large mammillations the Cumbraes, it was reinforced by the snows of Arran, and buried that 'craggy ocean pyramid,' Ailsa Craig. All the southern Highlands, from Fast Castle on the east to Wigtonshire on the west coast, were also covered with glacier ice, together with Northumberland, Durham, and the beautiful dales of Yorkshire, scooped out of the Carboniferous series of rocks. Cumberland too was buried in ice, part of which crossed the vale of Eden and over the hills beyond, carrying detritus to the eastern shore of England. So great was this ice-sheet that, joining with the ice-