

posterior to it, and when the land was rising. The evidence is, I think, conclusive, that glaciers there were. I examined, during the autumn of last year, the famous Glencoe, and can now entertain no more doubt that a glacier once descended along the bottom of that deep and rugged valley, filling it up from side to side to the depth of from a hundred and fifty to two hundred feet, than that an actual glacier descends at the present day along the valley of the Aar or of the Grindelwald. The higher precipices of Glencoe are among the most rugged in the kingdom: we reach a certain level; and, though no change takes place in the quality of the rock, all becomes rounded and smooth, through the agency, evidently, of the vanished ice-river, whose old line of surface we can still point out from the continuous mark on the sides of the precipices, beneath which all is smooth, and above which all is rugged, and whose scratchings and groovings we can trace on the hard porphyry descending towards the Atlantic, even beyond where the sea occupies the bottom of the valley. The lines and grooves running in a reverse direction to those of the icebergs, for their course is towards the west, are distinctly discernible as far down as Ballachulish ferry. Similar marks of a great glacier in the valley of the Gareloch have been carefully traced and shrewdly interpreted by Mr. Charles M'Laren. But nowhere have I seen the evidence of glacial action more decided than in the Highlands of Sutherland, over which I travelled last August more than a hundred and fifty miles, for the purpose of observation. There is scarce a valley in that wild region, whether it open towards the northern or western Atlantic, or upon the German Ocean, that in this ungenial period was not cumbered, like the valleys of the upper Alps, by its burden of slowly-descending ice. Save where, in a few localities on the lower slopes of the hills, the true boulder-clay appears, almost all the subsoil of the country, where it *has* a subsoil, is composed of a loose, unproductive glacial