

yet the rocks on which it rests, in some localities to the depth of a hundred feet at even the level of the sea, bear as decidedly their groovings and polishings as those on which, eight hundred feet over the sea level, it reposes to but the depth of a yard or two. Now, had a rising land been subjected piecemeal to the grinding action of the icebergs, this would not have been the case. The higher rocks first subjected to their action would of course bear the groovings and furrowings; but the argillaceous dressings detached from them in the process, mixed with the stones and pebbles which the ice had brought along with it, would necessarily come to be deposited in the form of boulder-clay on the lower rocks; and ere these lower rocks could be brought, by the elevation of the land, within reach of the grinding action of the icebergs, they would be so completely covered up and shielded by the deposit, that the bergs would fail to come in contact with them. They would go sweeping, not over the rocks themselves, but over the clay by which the rocks had been covered up; and so we may safely infer that, had the boulder-clay been formed during an elevating period, the lower rocks, where thickly covered by the clay, would not be scratched and grooved as we now find them, or, where scratched and grooved, would not be thickly covered by the clay. The existing phenomena, deep grooves and polished striæ, on rocks overlaid at the present sea-level to a great depth by the boulder-clay, demand for their production the reverse condition of a sinking land, in which the lower rocks are first subjected to the action of the icebergs, and the higher rocks after them. The quarrier, when he has to operate on some stratum of rock on a hill-side, has to commence his labours below, and to throw the rubbish which he forms behind him, leaving ever an open *face* in front; for, were he to reverse the process, and commence *above*, the accumulating débris, ever seeking downwards, would at length so choke up the working as to arrest his labours. And such, we infer from