

the direction of the furrows. There is obviously, therefore, a connection between these two distinct classes of phenomena ; and I know of no theory that can account for both of them, with any plausibility, except that already alluded to in the last chapter, viz., the agency of large islands of floating ice, which, by their buoyancy and enormous weight, supply the carrying power and pressure required to scratch, polish, and groove the solid floor of the ocean, and to convey stones of all sizes, firmly fixed and frozen into the ice, to great distances.

As large masses of ice are annually accumulated in the rivers of Lower Canada, and when they break up in spring are often the means of conveying from place to place, huge fragments of rock, I hoped to discover indications, not only of the polishing, but also of the grooving of the surface, at those points where the packed ice is forced every year over the bottoms of the Canadian rivers. Accordingly, at Quebec, I went with Colonel Codrington, and searched carefully below the city in the channel of the St. Lawrence, at low water near the shore, for the signs of glacial action, at the precise point where the chief pressure and friction of packed ice are exerted every year. But the edges of the worn greywacke slates, in the channel there, are scarcely any of them hard enough to receive or retain such markings, and if they were so, the weight of the ice would probably be insufficient. At the bridge above the Falls, at Montmorenci, over which a large quantity of ice passes every year, the gneiss is polished, and kept perfectly free from lichens, but not more so than rocks similarly situated at waterfalls in Scotland. In none