native sites. The mountain valleys in the higher Alps, on the confines of eternal snow, sometimes becomes closed by the extension of a lateral glacier across them, which dams in the water from the melting of Alpine snow, and forms a mountain lake, elevated many thousand feet above the lower habitable valleys. During very hot summers, the same cause which increases the waters in the lake, by a more rapid melting of the Alpine snows, diminishes the strength and thickness of the barrier of ice; it is rent asunder, and the whole water of the lake is suddenly precipitated with tremendous violence, into the lower valleys, tearing down and bearing along with it all opposing obstacles: the water is seen approaching like a moving wall. In this manner was the village of Martingny in the Valais nearly destroyed in 1818. A similar inundation, in the valley of the Upper Doron in the Tarentaise, took place in the following year. I had an opportunity of observing its effects, which appeared to equal in intensity, but not in extent, those of diluvial action. Numerous blocks of stone of many tons' weight, were brought down by the torrent, and scattered over a small plain at the mouth of the lateral valley, along which they had descended. These blocks were chiefly quartz rock, intermixed with a few blocks of mica and talc slate.

To proceed to the causes which are, in the present time, wearing down the surface of islands and continents.—The action of the sea upon the cliffs in England, proves, in a striking manner, the changes which this important agent can effect in the space of a few centuries, and sometimes in a few years. In Devonshire and Dorsetshire, and on the coasts of Sussex, Kent, and Suffolk, the sea has made great encroachments on the land, since the time of the Norman Conquest; as may be proved both by ancient records, and by what is now taking place; the cliffs being undermined by high tides, large portions of land are yearly falling into the sea.

It may, however, be doubted, whether the surface of dry land is not gradually increasing on the whole globe. The depositions from the sea and from rivers are filling up bays, estuaries, and lakes: all broad flat valleys, and almost all low and fertile plains, were once covered with water. On the eastern side of our own island, though the land is wearing away in some parts, it is increasing more rapidly in others. The flat parts of Lincolnshire, Cambridgeshire, and Holderness in Yorkshire, have been gained from the sea, or from rivers, by depositions of sand and mud at no very remote period; and the process is going on daily. In many parts, the sea, during high tides, is above the present level of the land, and is kept out by embankments.

In Yorkshire, the proprietors contrive to raise the surface of the ground, by what is called *warping*. At the highest spring tides, they open sluices in the embankments, and cover the land with the turbid sea-water, which remains until it has deposited its contents, and is let out at low water. The quantity of earthy matter held in