

and Shetland Islands, that vessels passing there have had the unwonted deposit shovelled off their decks in the morning. In the year 1783, during the memorable eruption of Skaptar-Jökull, so vast an amount of fine dust was ejected that the atmosphere over Iceland continued loaded with it for months afterward. It fell in such quantities over parts of Caithness—a distance of 600 miles—as to destroy the crops; that year is still spoken of by the inhabitants as the year of “the ashie.” Traces of the same deposit have been observed in Norway, and even as far as Holland.⁶⁶ Hence it is evident that volcanic accumulations may take place in regions many hundreds of miles distant from any active volcano. A single thin layer of volcanic detritus in a group of sedimentary strata would not thus of itself prove the existence of contemporaneous volcanic action in its neighborhood. Failing other proof of adjacent volcanic activity, it might have been wind-borne from a volcano in a distant region.

Lava-streams.—At its exit from the side of a volcano, lava glows with a white heat, and flows with a motion which has been compared to that of honey or of melted iron. It soon becomes red, and like a coal fallen from a hot fireplace, rapidly grows dull as it moves along, until it assumes a black, cindery aspect. At the same time the surface congeals, and soon becomes solid enough to support a heavy block of stone. The aspect of the stream varies with the composition and fluidity of the lava, form of the ground, angle of slope, and rapidity of flow. Viscous lavas, like those of Vesuvius, break up along the surface into rough

⁶⁶ Nordenskiöld, *Geol. Mag.* 2d dec. iii. p. 292. G. vom Rath, *Monatsber. K. Preuss. Akad. Wiss.* 1876, p. 282. *Neues Jahrb.* 1876, p. 52, and *postea*, p. 575.