where lava is directly exposed to the atmosphere, without receiving protection from occasional showers of volcanic ash, or where liable to be washed bare by heavy torrents of rain, its surface decays in a few years sufficiently to afford soil for stray plants in the crevices. When these have taken root they help to increase the disintegration; at last, as the rock is overspread, the traces of its volcanic origin fade away from its surface. Some of the Vesuvian lavas of the present century already support vineyards.

Elevation and Subsidence.—Proofs of elevation are frequent among volcanic vents which, lying near the sea and containing marine sediments among their older erupted materials, supply, in the inclosed marine organisms, evidence of the movement. In this way, it is known that Etna, Vesuvius, and other Mediterranean volcanoes, began their history as submarine vents, and that they owe their present dimensions not only to the accumulation of ejected materials, but also, to some extent, to an elevation of the sea-bottom.

Proof of subsidence is less easily traced, but indications have been observed of a sinking of the ground beneath a volcanic vent. During the eruption of Santorin in 1866–67, very decided but extremely local subsidence took place near the vent in the centre of the old crater. The discharge of such prodigious quantities of material may tend to produce cavernous spaces in the terrestrial crust, and the weight of the ejected lavas and tuffs may still further contribute to a general settlement of the ground around a volcanic focus.

If we consider the records of volcanic action in past geological time we meet with many proofs that it took place in areas where the predominant terrestrial movement was one of subsidence. Thus among the Palæozoic systems of Brit-