

Grottoes are sometimes formed by basaltic eruptions on land, followed by their separation into regular columns. The Grotto of Cheeses, at Bertrich-Baden, between Trèves and Coblentz, is a remarkable example of this kind, being so called because its columns are formed of round, and usually flattened, stones placed one above the other in such a manner as to resemble a pile of cheeses.

If we consider that in basalt-flows the lower part is compact, and often divided into prismatic columns, while the upper part is porous,

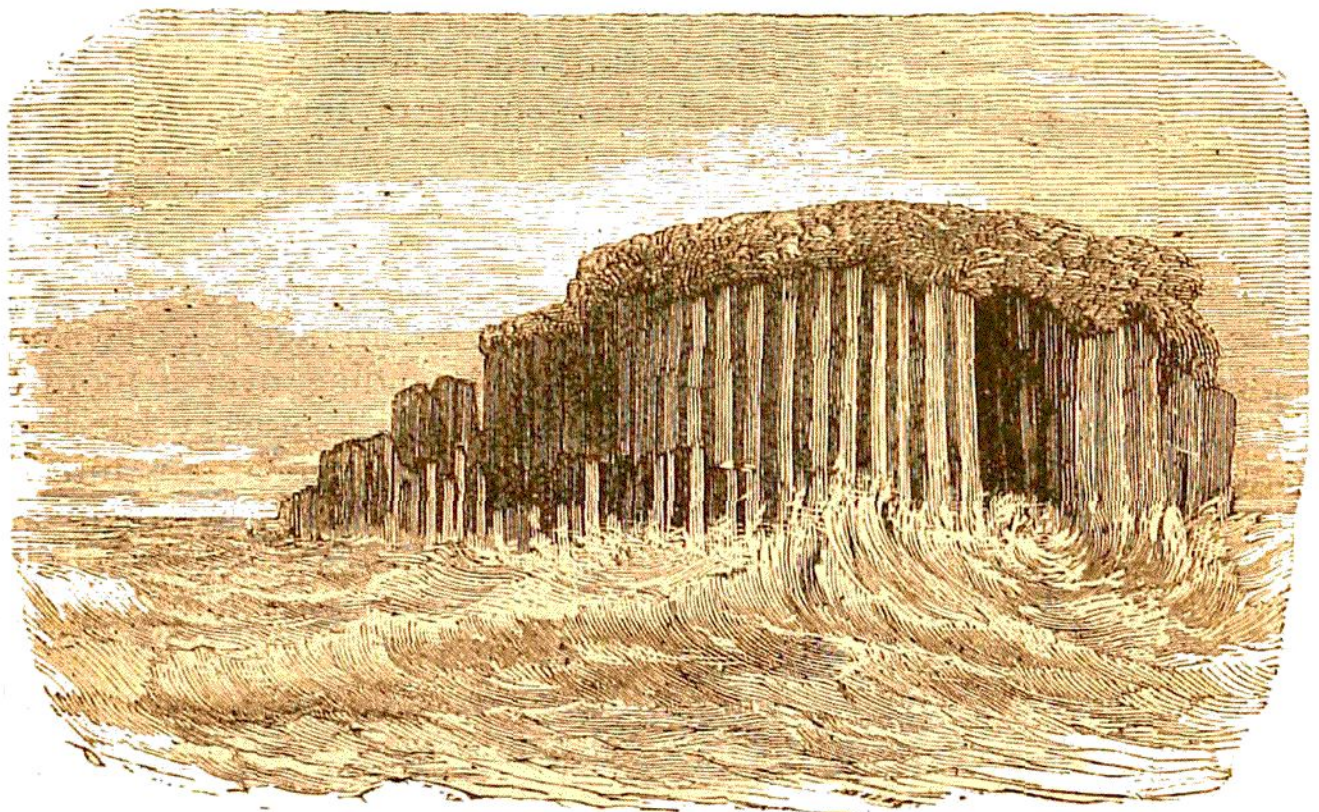


Fig. 8.—Basaltic cavern of Staffa—exterior.

cellular, scoriaceous, and irregularly divided—that the points of separation on which they rest are small beds presenting fragments of the porous stony concretions known under the name of *Lapilli*—that the lower portions of these masses present a multitude of points which penetrate the rocks on which they repose, thereby denoting that some fluid matter had moulded itself into its crevices—that the neighbouring rocks are often calcined to a considerable thickness, and the included vegetable remains carbonised—no doubt can exist as to the igneous origin of basaltic rocks. When it reached the surface through certain openings, the fluid basalt spread itself, flowing, as it were, over the horizontal surface of the ground; for if it