

Von Waltershausen brings forward evidence to show that the first volcanic outbreak on Etna took place during the Diluvial period, while that area formed part of the Continent; whereas Pilla, writing in 1845, referred the first Etna eruption to the Pliocene age, or possibly to a still more remote period. According to Von Waltershausen, the volcanic eruptions are concentrated along a fissure extending in N.N.W.—S.S.E. direction; and the famous Val del Bove is thought by him to have originated as a crust-inthrow, and is compared with the crust-basins of Somma and Santorin.

The Lipari Islands have called forth a rich literature. Special interest has been accorded to a ringed series of islands and reef-rocks surrounding Stromboli on the south. Hoffmann in 1832 suggested that these probably represented the fragments of a former enormous crater. Professor Judd in 1875 confirmed this view, and also agreed with Hoffmann's conclusion that the vents of the volcanic discharges in the Lipari Isles virtually occur along the course of three radial fissures. Professor Suess expressed a similar opinion that the Æolian Isles mark a saucer-shaped depression in which radial faults intersect.

The Santorin Isles form the subject of a splendidly illustrated monograph by Fouqué. Since its publication in 1878, a number of geologists have contributed special papers on the surface conformation, the geological structure, the origin and history of these volcanic islands. All newer publications agree that the theory of the Elevation-Craters is quite inapplicable to Santorin.

The volcanoes of Iceland have been carefully investigated during the past century. Mackenzie's Travels gave the earliest detailed reports (1811); in 1846, the great chemist Robert von Bunsen travelled through Iceland, and published five years later his famous treatise on the chemical composition and origin of the volcanic rocks of Iceland. Within recent years the island has been accurately mapped by members of the Norwegian Survey Department, and important contributions have been made to the knowledge of its volcanoes by Thoroddsen and Keilhack.

The extinct volcanoes of Europe have received a large share of attention from geologists. The Euganian Isles near Padua, and Monte Berici near Vicenza, have been studied by Dr. vom Rath, Dr. Reyer, and Professor Suess.