

the foundation-rock of granite. The hills composed of calcareous alluvial deposits are the remains of a series of beds, which once constituted an ancient plain, at a higher elevation than the present. Many are surmounted by a crest or capping of basalt, to which their preservation is probably attributable; others have escaped destruction from being protected by horizontal layers of a durable limestone, which I shall presently describe. We have, then, as the ground plan of the district, an extensive plain, chequered with low hills of fresh-water limestone, which are capped with compact lava (Plate VIII. figs. III. IV.); the boundaries of the plain being formed of ranges of primary rocks, 3,000 feet in altitude. To the westward the limestone disappears, and a plateau of granite rises to a height of about 1,600 feet above the valley of Clermont, being 3,000 feet above the level of the sea. This supports a chain of volcanic cones and dome-shaped mountains, about seventy in number, varying in altitude from 500 to 1,000 feet from above their bases, and forming an irregular range nearly twenty miles in length, and two in breadth. The highest point of this range is the Puy de Dome, which is 4,000 feet above the level of the sea (Plate VIII. fig. II. 4), and is composed entirely of volcanic matter; it possesses a regular crater, 300 feet deep, and nearly 1,000 feet in circumference. Many of these cones retain the form of well-defined craters, and their lava