

emission of lava hereafter to be described, which, although it occasioned much local damage, does not appear to have devastated the whole country, in the manner of more ancient explosions. There are, upon the whole, on different parts of Epomeo, or scattered through the lower tracts of Ischia, twelve considerable volcanic cones, which have been thrown up since the island was raised above the surface of the deep; and many streams of lava may have flowed, like that of "Arso" in 1302, without cones having been produced; so that this island may, for ages before the period of the remotest traditions, have served as a safety-valve to the whole Terra di Lavoro, while the fires of Vesuvius were dormant.

Lake Avernus. — It seems also clear that Avernus, a circular lake near Puzzuoli, about half a mile in diameter, which is now a salubrious and cheerful spot, once exhaled mephitic vapours, such as are often emitted by craters after eruptions. There is no reason for discrediting the account of Lucretius, that birds could not fly over it without being stifled, although they may now frequent it uninjured.* There must have been a time when this crater was in action; and for many centuries afterwards it may have deserved the appellation of "atri janua Ditis," emitting, perhaps, gases as destructive of animal life as those suffocating vapours given out by Lake Quilotoa, in Quito, in 1797, by which whole herds of cattle on its shores were killed †, or as those deleterious emanations which annihilated all the cattle in the island of Lancerote, one of the Canaries, in 1730.‡ Bory St. Vincent mentions, that in the same isle birds fell lifeless to the ground; and Sir William Hamilton informs us that he picked up dead birds on Vesuvius during an eruption.

Solfatara. — The Solfatara, near Puzzuoli, which may be considered as a nearly extinguished crater, appears, by the accounts of Strabo and others, to have been before the Christian era in very much the same state as at present, giving vent continually to aqueous vapour, together with sulphureous and muriatic acid gases, like those evolved by Vesuvius.

Ancient history of Vesuvius. — Such, then, were the points where the subterranean fires obtained vent, from the earliest period to which tradition reaches back, down to the first century of the Christian era; but we then arrive at a crisis in the volcanic action of this district — one of the most interesting events witnessed by man during the brief period throughout which he has observed the physical changes on the earth's surface. From the first colonization of Southern Italy by the Greeks, Vesuvius afforded no other indications of its volcanic character than such as the naturalist might infer, from the analogy of its structure to other volcanos. These were recognized by Strabo, but Pliny did not include the mountain in his list of active vents. The ancient cone was of a very regular form, terminating not as at present, in two peaks, but with a summit which presented, when

* De Rerum Nat. vi. 740. — Forbes, on Bay of Naples, Edin. Journ. of Sci., No. iii., new series, p. 87. Jan. 1830.

† Humboldt, Voy., p. 317.
‡ Von Buch, Ueber einen vulcanischen Ausbruch auf der Insel Lanzerote.