

doubt attributable to volcanic agency, and have been produced in the manner already described in speaking of the Dead Sea. In these places there may be now no external violent evidence of the activity of the same force, but still it may be in existence ; and the evolution of noxious vapours is one proof that the supposition is not without foundation. It is well known that in the neighbourhood of Vesuvius, and in other volcanic districts, there are many places from which carbonic acid is given off in large quantities, destroying animal, and considerably affecting vegetable life. The celebrated Grotto del Cane, at Naples, is an excellent example ; and there are many caves in the south of France, an extinct volcanic district, particularly those of Montjoly, where similar phenomena have been observed. It is not, therefore, singular, that springs and lakes produced by the same cause should emit the same vapour, for there must be as intimate a connexion with the cause in one instance as in the other. Bishoff and Nöggerath state, that there is a pit near Lake Laæch, where there is a permanent evolution of carbonic acid gas, and they found the remains of many animals that had been killed by it. On descending into the pit, and holding their heads over the stream, they experienced the sensation that is known to attend the breathing of this deleterious fluid. Near Bouddelreis, on the bank of the river Kyll, there is a spring that gives off so large a quantity of carbonic acid, as to appear, by the number of bubbles on its surface, as though it were boiling, and persons who attempt to drink from its basin are quickly driven away by the mephitic odour of the water.

Some lakes are periodical, and increase or decrease in depth at particular seasons of the year. There are some large cavities in South America, which, immediately after the rainy season, are filled with water, and become lakes ; but by the process of evaporation, and by filtration, the water is soon carried off. But there are others which rise and fall in a manner unaccounted for by the causes which so easily explain the drying up of the lakes of South America. It has been supposed that there is a connexion between these periodical lakes and a subterranean reservoir, the increase or decrease of which produces a similar effect upon the lake itself. It is still more difficult to explain those occasional disturbances to which inland lakes are sometimes subject. Loch Lomond is frequently agitated in a most violent manner