Azores, of the Caribbee islands of Mexico, of Guatimala, and of the table-land of Quito; when we examine either the reactions of these different systems of volcanos on one another, or the distance at which, by subterranean communication, they simultaneously convulse the earth.

The study of volcanos may be divided into two distinct branches; one, simply mineralogical, is directed to the examination of the stony strata, altered or produced by the action of fire; from the formation of the trachytes or trap-porphyries, of basalts, phonolites, and dolerites, to the most recent lavas: the other branch, less accessible and more neglected, comprehends the physical relations which link volcanos together, the influence of one volcanic system on another, the connection existing between the action of burning mountains and the commotions which agitate the earth at great distances, and during long intervals, in the same direction. This study cannot progress till the various epochs of simultaneous action, the direction, the extent, and the force of the convulsions are carefully noted; till we have attentively observed their progressive advance to regions which they had not previously reached; and the coincidence between distant volcanic eruptions and those noises which the inhabitants of the Andes very expressively term subterraneous thunders, or roarings.* All these objects are comprehended in the domain of the history of nature.

Though the narrow circle within which all certain traditions are confined, does not present any of those general revolutions which have heaved up the Cordilleras and buried myriads of pelagian animals; yet Nature, acting under our eyes, nevertheless exhibits violent though partial changes, the study of which may throw light on the most remote epochs. In the interior of the earth those mysterious powers exist, the effects of which are manifested at the surface by the production of vapours, of incandescent scoriæ, of new volcanic rocks and thermal springs, by the appearance of

Cotopaxi, Tunguragua, Pichincha, Antisana, and Sangai, belong to the same system of burning volcanos; they are generally ranged in rows, as if they had issued from a crevice, or vein not filled up; and, it is very remarkable, that their position is in some parts in the general direction of the Cordilleras, and in others in a contrary direction.

* Bramidos y truenos subterraneos.