

a recognisable succession of events. His researches had assured him that the volcanic history of Auvergne "formed a whole, which, though incomplete, showed that Nature had followed the same order of procedure in the most remote ages as in the most recent times."

In co-ordinating the appearances presented by the different volcanic masses, he began with the consideration of what were obviously the youngest, on the principle that the last operations of Nature are simpler, and have undergone less modification from the influences which are continually changing the face of the land. He perceived that volcanoes are only temporary accidents in the midst of the ordinary and normal operations of nature, that the materials erupted by volcanoes, at various intervals from a remote antiquity, must have suffered from the universal degradation, and that the extent of their waste would be proportionate to the length of time during which the loss had been continued. The latest lavas must unquestionably present most nearly the primitive forms of volcanic masses, and should thus serve as a standard for comparison, to be kept before the eyes of every observer who would judge correctly of the extent and progress of the alteration that is to be seen in other regions.

The first of his three periods includes the products of still active and recently extinct volcanoes. These are distinguished by the association of crater-bearing cones of cinders and scoriæ, with streams of rugged lava, which can be followed from the cones into the surrounding country over which they have flowed. The most modern lava-streams are not cut through