

followed the traces of the lava, and was thus guided to the extinct volcanoes in Auvergne, which had up to that time been unknown in mineralogical science. His famous paper, entitled "Sur quelques montagnes de la France qui ont été Volcans," was presented at the Royal Academy of Sciences in 1752, and published in 1756. His paper on basalt was published in 1770.

Giraud Soulavie, abbot at Nîmes, investigated the extinct volcanoes in Vivarais, Velay, Auvergne, and Provence. His chief book, *Histoire naturelle de la France meridionale* (Nîmes, 1780-84), gave an accurate description of the rocks of the neighbourhood. In it Soulavie strongly advocated the volcanic origin of basalt, and described minutely the physical peculiarities and the divisional planes of basalt rock. He also made an attempt to determine a chronological succession of the volcanic eruptions upon the basis (1) of the position of the basaltic flows above or below rocks of other composition and origin, (2) of the preservation of the scoriaceous and slaggy surfaces, (3) of the variations in the height of the extinct craters. Even although the succession drawn up by Soulavie could not be other than faulty, owing to the elementary state of stratigraphical knowledge at that time, it was a remarkable piece of work, and fully justifies for him a high place amongst the geologists of the end of the eighteenth century. His own contemporaries were inclined to see rather the weaknesses than the excellences in the work of the country abbot. Many of Soulavie's conceptions and observations have, however, proved themselves to be eminently fruitful and valuable.

Rouelle, a lecturer on chemistry, seems to have been an exceptionally acute thinker. In a short introduction to a series of lectures on chemistry, Rouelle touched on the origin of the earth and the composition of its crust. He distinguished "an old and a new earth." To the first he reckoned granite, in the latter he placed all calcareous, argillaceous, and arenaceous rocks, together with the fossils contained in them. The fossils were, he said, distributed in the succession of rocks in a definite order of development, and these extinct forms had differed in the different lands according to environment and climate, just as the existing faunas and floras differ in different localities at the present day. Rouelle further explained the coal-seams as accumulations of plants; the rough limestone