

his long-delayed essay at last appeared in the annual volume of the *Memoirs of the Academy*. Life was more placid in those times than it has since become. The feverish haste to be famous, and the frantic struggle for priority, which are now unhappily so rampant, were but little known in Desmarest's days. He kept his work eleven years beside him, enriching it continually with fresh observations drawn from extended journeys, and thus making his conclusions rest on an ever-widening basis of accurately determined fact.

The Memoir, as finally published, was divided into three parts, two of which appeared together, the third not until three years later. In the first part, the author narrated his observations in Auvergne and other districts, bearing on the nature of basalt. It would take too much space here to follow him through his survey of the regions where he found the evidence which he brought forward. Let me refer merely to the concluding pages, in which he states his opinion as to the origin of the columnar rock which he had tracked with such diligence from district to district. His account, he remarks, would be incomplete if he did not indicate at the same time the materials which have been melted by the fire in order to produce basalt. He had collected a series of specimens of granite which he believed to represent these materials. They had undergone different degrees of alteration, some showing still their spar, quartz or other minerals, while others had partly undergone complete fusion. He had convinced himself that various other volcanic rocks besides basalt had resulted from the fusion of granite, the base of which may have been completely melted, while the