

incredulous reception by Werner and his adherents. One of those, Jens Esmarch, afterwards Professor of Geology in the University of Christiania, travelled through the districts which Fichtel had described. In all the localities where Fichtel had found evidence of the *igneous* as opposed to the *aqueous* origin of the primitive rocks, Esmarch could see only a confirmation of Werner's teaching (*Short Description of a Journey through Hungary, Transylvania, and the Banat Mountains*, Freiberg, 1797).

The writings of the energetic but somewhat eccentric traveller Hacquet¹ in many respects supplemented the works of Fichtel.

Hacquet's records of his journeys in the Carpathian and Transylvanian mountains were, however, written towards the close of his active life. His fame is based upon another work, the *Oryctographia Carniolica*, a study of the surface conformation of Carniola, Istria, and neighbouring districts (4 vols., Leipzig, 1778-89). This monograph, which was modelled after the pattern of the Swiss geologists, Scheuchzer and De Saussure, represented the fruit of twenty years' residence in Carniola, and disclosed for the first time something of the mineralogical and physical structure of the more remote southern ranges of the Alps. A geographical map was published along with the work.

The scenic character and physical relations of the country, as well as the customs and character of the population, are excellently depicted. But in the geological portion the author unfortunately confined himself to a barren description of the individual occurrences of rocks, minerals, and fossils, without attempting to give a general conception of the structure. During the years 1781-86, Hacquet extended his knowledge of the Alps by travelling through the Dinaric, Julic, Rhætic, and Noric Alps. He then published a work of a more mineralogical and geological character upon these districts, but he did not succeed in arriving at any real appreciation of the broad features of Alpine structure.

This was a task even beyond the greater powers of Leopold

¹ Balthazar Hacquet (1739-1815) had a varied career. Born in Brittany, he became a surgeon; in that capacity he attached himself to the Austrian Army throughout the Seven Years' War. At the close of the war he taught Surgery at the Lyceum of Lailbach, and in 1788 he was made Professor of Natural History and Surgery in the University of Lemberg.