

have been the first person to see the immense value of the most marked of external characters, crystalline form, he did not, in fact, attach much importance to it. Perhaps he was in some measure fascinated by a fondness for those characters which he had himself systematized, and the study of which did not direct him to look for geometrical relations. However this may be, the glory of giving to Crystallography its just importance in Mineralogy is due to France: and the Treatise of Haüy, published in 1801, is the basis of the best succeeding works of mineralogy. In this work, the arrangement is professedly chemical; and the classification thus established is employed as the means of enunciating crystallographic and other properties. "The principal object of this Treatise," says the author,<sup>7</sup> "is the exposition and development of a method founded on certain principles, which may serve as a framework for all the knowledge which Mineralogy can supply, aided by the different sciences which can join hands with her and march on the same line. It is worthy of notice, as characteristic of this period of Mixed Systems, that the classification of Haüy, though founded on principles so different from the Wernerian ones, deviates little from it in the general character of the divisions. Thus, the first Order of the first Class of Haüy is *Acidiferous Earthy Substances*; the first genus is *Lime*; the species are, *Carbonate of Lime*, *Phosphate of Lime*, *Fluate of Lime*, *Sulphate of Lime*, and so on.

*Other Systems.*—Such mixed methods were introduced also into this country, and have prevailed, we may say, up to the present time. The *Mineralogy* of William Phillips, which was published in 1824, and which was an extraordinary treasure of crystallographic facts, was arranged by such a mixed system; that is, by a system professedly chemical; but, inasmuch as a rigid chemical system is impossible, and the assumption of such a one leads into glaring absurdities, the system was, in this and other attempts of the same kind, corrected by the most arbitrary and lax application of other considerations.

It is a curious example of the difference of national intellectual character, that the manifest inconsistencies of the prevalent systems, which led in Germany, as we shall see, to bold and sweeping attempts at reform, produced in England a sort of contemptuous despair with regard to systems in general;—a belief that no system could be consistent or useful;—and a persuasion that the only valuable knowledge is the accumulation of particular facts. This is not the place to

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<sup>7</sup> Disc. Prél. p. xvii.