

greatly the study of the angular form of crystals might become interesting, and fitted to extend the sphere of our mineralogical knowledge, I have followed them in all their metamorphoses with the most scrupulous attention." The views of Linnæus, as to the importance of this character, had indeed been adopted by several others; as John Hill, the King's gardener at Kew, who, in 1777, published his *Spathogenesis*; and Grignon, who, in 1775, says, "These crystallizations may give the means of finding a new theory of the generation of crystalline gems."

The circumstance which threw so much difficulty in the way of those who tried to follow out his thought was, that in consequence of the apparent irregularity of crystals, arising from the extension or contraction of particular sides of the figure, each kind of substance may really appear under many different forms, connected with each other by certain geometrical relations. These may be conceived by considering a certain fundamental form to be cut into new forms in particular ways. Thus if we take a cube, and cut off all the eight corners, till the original faces disappear, we make it an octohedron; and if we stop short of this, we have a figure of fourteen faces, which has been called a *cubo-octohedron*. The first person who appears distinctly to have conceived this *truncation* of angles and edges, and to have introduced the word, is Démeste;<sup>13</sup> although Wallerius<sup>14</sup> had already said, in speaking of the various crystalline forms of calcspar, "I conceive it would be better not to attend to all differences, lest we be overwhelmed by the number." And Werner, in his celebrated work *On the External Characters of Minerals*,<sup>15</sup> had formally spoken of *truncation*, *acuation*, and *acumination*, or replacement by a plane, an edge, a point respectively, (*abstumpfung*, *zuschärfung*, *zuspitzung*,) as ways in which the forms of crystals are modified and often disguised. He applied this process in particular to show the connexion of the various forms which are related to the cube. But still the extension of the process to the whole range of minerals and other crystalline bodies, was due to Romé de Lisle.

<sup>13</sup> *Lettres*, 1779, i. 48.

<sup>14</sup> *Systema Mineralogicum*, 1772-5, i. 143.

<sup>15</sup> Leipzig, 1774.