

Werner knew the best of the new work that was being done elsewhere. From all parts of Europe students came, and, when they returned to their own countries, they spread the teaching of geognosy and mineralogy as Werner had taught it to them. It was the spoken word of Werner that carried. Of written words no man of genius could have been more chary. His dislike of writing increased as he grew older, till he could scarcely bring himself to reply to the most important letters. Cuvier relates that the letter which announced to Werner that he had been elected a Foreign Member of the French Academy was left unopened by the Professor and was never answered.

With the exception of a number of mineralogical papers, and a short classification and description of the different rock-formations, Werner published only a single work on the origin of dykes, and a series of very short articles on basalt, trap-rock, and the origin of volcanoes. He never published his academical courses of lectures; for an account of these we have to turn to notes published by his students, sometimes in abridged and sometimes in extended form. Werner had, however, more than once to disown these published notes, as they failed to represent the true sense of his lectures.

The most trustworthy reports of Werner's "geognosy" are probably those written by Franz Ambros Reuss in the third part of his text-book (Leipzig, 1801-3); by D'Aubisson de Voisins in his *Traité de Géognosie* (Strasburg and Paris, 1819); and by Jameson in the *Elements of Geognosy* (Edinburgh, 1808). Werner himself published only one lecture—"Introductory to Geognosy"—delivered at Dresden.

Werner defined "Geognosy" as the "Science which inquires into the constitution of the terrestrial body, the disposition of fossils (*i.e.* minerals, cf. p. 15) in the different rock layers, and the correlation of the minerals one to another." In his lectures, he began with a short epitome of mathematical and physical geography, and with a discussion of the natural agencies which alter the conformation of the globe.

Proceeding to the consideration of the earth's crust, Werner described all the varieties of rock and entered in detail into their structure, their position, their chronological succession, and their technical value as rich or poor metalliferous layers. Certain varieties of rock (shale, limestone, trap-rock, porphyry, coal, talc, and gypsum) were thought by Werner to have been