

Interest was directed, in the first place, towards the investigation and description of the accessible parts of the earth's crust. The composition and arrangement of the strata were studied with enthusiasm. The bolder inquirers ventured into wild recesses of mountain-chains and climbed snowy peaks, whose difficulties had hitherto been thought insurmountable; travellers explored the uninhabited plains of Siberia, the remote mountain-ranges of Asia and America, and brought home with them new scientific material and observations of the highest importance for comparative research.

The illustrious Professor of Mineralogy at Freiberg, Abraham Gottlob Werner, exercised an unrivalled authority amongst the followers of the strict descriptive method in natural history. By the skill and eloquence of his teaching, far more than by his books and writings, Werner inspired in his scholars and adherents a devotion towards exact methods of study. The public lectures given by Werner systematised for the first time the subject-matter that should properly come within the domain of that rapidly growing branch of science for which he originally suggested the name "Science of Mountains," but afterwards called "Geognosy." Werner included in his system of geognosy the mineralogical identification of the rocks, also the minerals present in them, and their special places of occurrence, the determination of the stratigraphical position of the rocks, their thickness, and mutual relationships, as well as the conditions under which they took origin.

Under the term "geology," suggested by De Luc, Werner would only recognise theoretical speculations about the origin and history of the earth. Great though the advantages of Werner's method were, it was not without its weaknesses. The chronological succession of the individual members of a formation was not determined with sufficient precision, the fossils were scarcely used in determining the age of a rock stratum, and the history of organic creation was not even recognised as a subject of investigation in geognosy.

In this respect the great pioneer was the English engineer, William Smith. He was the first to make known on incontestable evidence that the stratified rocks of England could be most securely identified and arranged in chronological order according to their organic contents. Smith's method of determining the age of rock-strata from the organic remains found