

surface of the land, and would not have been buried deep in the earth where the quarrymen had found them. There was left, he continued, only one possible explanation—that the fossils were the remains of animals which had once lived in the localities where their remains are now imbedded.

Far more illustrious than the majority of his contemporaries in science was George Bauer,¹ better known by his *nom-de-plume* of Agricola. Werner calls him the father of metallurgy, and the originator of the critical study of minerals. Bauer's stay in Joachimsthal enabled him to become familiar with the mines there, and to make a collection of local minerals. The clever physician soon received general recognition as the best authority on mining, and the publication of his pamphlet "Bermannus" in 1528 further confirmed the prominent position he held among mineralogists. His great work, *De re metallica libri duodecim*, contains a complete description of mining and metallurgy as then practised, as well as valuable communications about the mode of occurrence of useful minerals, and about veins and deposits of ore. Two later works, *De natura fossilium*, Lib. x., and *De veteribus et novis metallis*, Lib. ii., describe all the minerals known to the ancients, and all those which had since been discovered. Agricola's observations on crystalline form, cleavage, hardness, weight, colour, lustre, etc., have served as a model for all subsequent descriptions of minerals. On the other hand, Agricola's remarks about fossils are of much less value. He had devoted little attention to the fossil remains of animals and plants, and he unfortunately united under the name "Fossilia" both minerals and petrified organisms. This use of the term "Fossils" was perpetuated for two centuries in the literature, having been more especially adopted by the famous Wernerian School. Agricola referred by far the greater part of the organic remains found in the solid rock to a wholly inorganic origin; he regarded fossil mussels, belemnites, "Ammon's Horns," "Glossopetra" (fish teeth), and other problematical remains as

¹ Georg Bauer (Agricola) was born at Glauchau in Saxony in 1494. He went to Italy, where he graduated as doctor, and then settled in Joachimsthal as a physician; afterwards he was appointed professor of chemistry at Chemnitz, and died there 1555. A complete edition of his works was published in the Latin tongue in Bâle. A German translation of the mineralogical writings was published at Freiburg in 1816 by Ernst Lehmann.