

sulphurous materials, native sulphur, and springs of naphtha, and remarks "it is not unreasonable to believe that since the Deluge there have been partial fires, the date of which is not known, but which occurred at a time when combustible substances were more plentifully distributed in the thickness of the earth than they are now."

A considerable part of the *Protogaea* is devoted to a discussion of the evidence from organic remains enclosed in the sedimentary formations. In showing how perfectly and in what minute detail the structure of fishes and other organisms is reproduced in these fossils, Leibnitz ridicules the absurdity of calling them "sports of Nature," and points out how much more willingly we should admit the operation of an obvious and regular cause than a mere game of chance or other fanciful suggestion, under which the conceited ignorance of the learned had taken shelter. He insists on discriminating between the polygonal forms of crystals and the shapes of fossils, which had all been classed as arising from the same plastic force, and he complains of the facile credulity which could bring men not only to confound these utterly distinct things, but to believe that Nature could have manufactured within the rocks historical and mythological pictures, such as Apollo and the Muses in veins of agate, the pope and Luther in the stone of Eisleben, and sun, moon and stars in marble.

Leibnitz takes note of the astonishment expressed by some writers that for many of the "figured stones" no analogies had been discovered in the living world of to-day, or at least in the regions where these objects are