

28 *Herodotus and Aristotle on Rivers*

of the nature and cause of earthquakes and volcanoes. The idea that both of these manifestations of hypogene energy arise from the action of air imprisoned within the earth and struggling to escape continued to hold its ground, the heat and fire of volcanoes being regarded as probably due to the action of the internal wind in setting fire to sulphur, bitumen or other combustible substances.

2. *Processes at work on the surface of the earth.* Among the geological agents which alter the face of the land, rivers have naturally occupied much of the attention of mankind in all ages. Herodotus during his visit to Egypt was greatly interested in the Nile, and he devotes some space to a discussion of the remarkable characteristics of this stream. He enumerates and criticises the various explanations which had been given of its annual rise, but without venturing on any definite conclusion himself. He recognises however the significance of the yearly deposit of silt on the surface of the country, and concludes that "Egypt is the gift of the river."

Aristotle discusses the phenomena presented by rivers, and shows considerable acquaintance with the drainage system on the north side of the Mediterranean basin. He criticises previously expressed opinions as to the source of rivers, particularly ridiculing the suggestion of Plato that all rivers flow directly from a vast mass of water under the earth. He appears to have held the opinion that just as the vaporised moisture in the atmosphere is condensed by cold and falls in drops of rain, so the moisture beneath the earth is similarly condensed and forms the sources of rivers.