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[FRAGMENTS]

The origins of Volcanology

The first traces of a scientific study of volcanology and the earth sciences in Antiquity can be found among the Greeks, a small intellectual people that experienced an extraordinary blossoming in many realms of knowledge and social activity.

However, the writings of the Greek philosophers have on the whole not survived and often scant quotations, the sole remaining fragments of lost works, are our only basis to reconstruct the ideas of these philosophers and the scientific edifice of Greek culture.

We are not dealing here with the superstitions of primitive peoples or the idiosyncratic beliefs of some ancient civilisations, but rather with scientifically grounded hypotheses relating to the origins of the earth and in particular to volcanoes. In some cases the proof of the arguments is missing, making the theory appear rather fragile from the viewpoint of modern science; often the logical brio does not produce a convincing result, but we must not forget that the only foundations available to the Greeks in devising their theories were their own experience and certain Egyptian, Babylonian and, perhaps Indian, traditions. The Greeks thus had to construct all the natural sciences virtually from scratch and notwithstanding this, managed to endow these with the dignity of scientific thought, culminating in the works of Democritus (460–370 BC) and Aristotle (384–322 BC).

The Greeks also forged ahead with scientific studies of geophysics and rigorously analysed the multiple processes underpinning transformations of the earth's surface. Taking detailed observations of these natural processes as their point of departure, they identified certain common and generally valid principles, with which they