

Hesiod's "Theogony" is the oldest of the Greek cosmogonies, but from what we know of it, the speculations of this early Greek philosopher were rather brilliant flights of fancy than efforts to assimilate observations of natural phenomena. Thus, the world is said to have taken origin from a primeval chaos, and to have given birth to the heavens, the mountains, and the oceans; then the races of gods sprang from the earth and the heavens.

Thales of Miletus, the contemporary of Cræsus and Cyrus, considered that everything, animate and inanimate, was derived from water. His gifted scholar, Anaximander (born *circa* 611 B.C.), arrived at a higher conception of Nature. He depicted an infinite, all-pervading primeval substance, possessing an inherent power of movement from the first. The energy of this primeval matter determined heat and cold, and the mixture of these conditions gave origin to the development of fluid; the earth, the air, and a surrounding circle of fire differentiated from the fluid state. The stars sprang from fire and air; the earth rested in the centre of the whole universe, and under the influence of the sun brought forth the animals which inhabit it. These, including human beings, were at first fish-like in form, consistent with the semi-fluid state of their environment. Thus Anaximander had the merit of appreciating certain physical states as attributes of universal matter; his work, *περὶ φύσεως*, is unfortunately lost.

Xenophanes of Colophon (born 614 B.C.) is reported by later writers to have observed the shell remains of pelagic mollusca on mountains in the middle of the land, impressions of laurel leaves in the rocks of Paros, as well as various evidences of the former presence of the sea on the ground of Malta, and to have attributed those appearances to periodic invasions of the sea during which men and their dwellings must have been submerged. The historian Xanthus of Sardis (*circa* 500 B.C.) also drew attention to the occurrence of fossil shells in Armenia, Phrygia, and Lydia, far from the sea, and concluded that the localities where such remains occur had been formerly the bed of the ocean, and that the limits of the dry land and the ocean were constantly undergoing change.

Herodotus (born 484 B.C.) mentioned the presence of fossil shells of marine bivalves in the mountains of Egypt and near the oasis of Ammon. From this fact, as well as from the salt constitution of the rocks, Herodotus formed the opinion that