

ry of the recognition of the universe is wholly different from the history of the natural sciences, as given in our elementary works on physics and on the morphology of plants and animals. This is the history of our conception of the unity of phenomena, and of the reciprocal connection existing among the natural forces of the universe. Mode of treating a history of the Cosmos: *a.* The independent efforts of reason to gain a knowledge of natural laws; *b.* Cosmical events which have suddenly enlarged the horizon of observation; *c.* The invention of new means of sensuous perception. Languages. Points of radiation from which civilization has been diffused. Primitive physics and the natural science of barbarous nations obscured by civilization—p. 118.

*Principal Momenta of a History of a Physical Contemplation of the Universe.*

I. *The basin of the Mediterranean* the starting-point of the attempts to extend the idea of the Cosmos. Subdivisions in the form of the basin. Importance of the form of the Arabian Gulf. Intersection of two geognostic systems of elevation from N.E. to S.W., and from S.S.E. to N.N.W. Importance of the latter direction of the lines of intersection considered with reference to general international intercourse. Ancient civilization of the nations dwelling round the Mediterranean. The Valley of the Nile, the ancient and modern kingdom of the Egyptians. The Phœnicians, a race who favored general intercourse, were the means of diffusing alphabetical writing (Phœnician signs), coins as medium of currency, and the original Babylonian weights and measures. The science of numbers, arithmetic. The art of navigating by night. West African colonies—p. 130.

Pelasgian Tyrrhenians and Etruscans (Rasensæ). Peculiar tendency of the Etrurian races to maintain an intimate communion with natural forces; the fulguratores and aquileges—p. 140.

Other anciently civilized races dwelling around the Mediterranean. Traces of cultivation in the East, under the Phrygians and Lycians; and in the West, under the Turduli and the Turdetani. Dawn of Hellenic power. Western Asia the great thoroughfare of nations emigrating from the East; the Ægean island world the connecting link between Greece and the far East. Beyond the 48th degree of latitude, Europe and Asia are fused together, as it were, by flat steppes. Phercydes of Syros, and Herodotus, considered the whole of North Scythian Asia as appertaining to Sarmatian Europe. Maritime power, and Doric and Ionic habits of life transmitted to the colonial cities. Advance toward the East, to the Euxine and Colchis; first acquaintance with the western shore of the Caspian Sea, confounded, according to Hecataeus, with the encircling Eastern Ocean. Inland trade and barter carried on by the chain of Scytho-scolotic races with the Argippæans, Issedones, and the Arismaspes, rich in gold. Meteorological myth of the Hyperboreans. Opening of the port of Gadeira toward the west, which had long been closed to the Greeks. Navigation of Colæus of Samos. A glance into the boundless; an unceasing striving for the far distant; accurate knowledge of the great natural phenomenon of the periodic swelling of the sea—p. 153.

II. *Campaigns of the Macedonians under Alexander the Great, and the long-enduring Influence of the Bactrian Empire.*—With the exception of the one great event of the discovery and opening of tropical America eighteen and a half centuries later, there was no other period in which a richer field of natural views, and a more abundant mass of materials