



METADATA

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Authors: Kalfas, V., Professor Emeritus, AUTH

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Abstract

This e-textbook consists of twelve studies that focus on the study of the Heavens by philosophers and mathematicians during Greek antiquity. The historical period they cover is extensive, from the 4th century BC until the end of Greek antiquity. Their ambition is to bring to light circumstances, in which tension is manifested between the branches of knowledge, and the importance of the demarcation of science and philosophy emerges. The way the issues are raised at these critical junctures, the "questions" that arise and the solutions that are given are enlightening for the understanding of ancient Greek thought. The book can be divided into two parts. The first part refers to the way in which Plato and Aristotle dealt with the phenomena of the heavens - mainly

in their works *Timaeus* and *De Caelo* respectively. Plato connected philosophy with mathematics and considered astronomy a useful mathematical science for philosophy. Aristotle instead tried to separate the philosophical approach to οὐρανός from the mathematical one. The second part examines the corresponding problems in the years of the great development of Greek science, that is, in the Hellenistic and the Roman period. The phenomena of the Heavens primarily concern astronomers, proposing bold and effective mathematical theories, but they are also a field of serious reflection for natural philosophers. Both seek to "save the phenomena", but they do so in a different way and with a different method. This controversy persists until the time of Copernicus.

