

# nature

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## HOMINID DENTAL DEVELOPMENT

SCIENTIFIC INSTRUMENTS  
product review

# Founding father

Robert Temple

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**Theophrastean Studies: On Natural Science, Physics and Metaphysics, Ethics, Religion and Rhetoric.** Edited by William W. Fortenbaugh and Robert W. Sharples. *Transaction Books, New Brunswick, New Jersey/Clio Press, Oxford: 1988. Pp. 348. \$49.95, £36.75.*

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THEOPHRASTUS of Eresus in Lesbos was a younger friend of Aristotle, and they were students at Plato's Academy together. After Plato's death, Theophrastus became Aristotle's chief assistant in a massive programme to study the whole of nature, Aristotle taking animals as his subject and Theophrastus taking plants. They thus became the 'fathers' of zoology and botany, respectively, and their works followed a common plan. As R.W. Sharples puts it, they both saw "the natural world as *in principle* the object of a single, unified enquiry". After Aristotle's death in 323 BC, Theophrastus became the head of their school, the Lyceum, at Athens, where he had over 2,000 students.

Lists of his works by later librarians at Alexandria give more than 270 titles. Over 1,000 fragments of these have been gathered, edited and translated by the International Theophrastus Project and will be published within the next few years. The contributors to this volume are leading members of the project, and this is the volume intended to act as an introduction to the forthcoming fragments. (A text and translation of Theophrastus's *Meteorology* discovered in a Maharajah's library in India by Hans Daiber will appear as a separate volume.)

The book is not fully accessible to

readers without some knowledge of Greek philosophy and philosophical terminology. But it has an importance far exceeding its forbidding presentation. The attention given to Theophrastus over the past decade, reaching its culmination here, makes possible for the first time a proper understanding of the methods, aims and achievements of Aristotle in his scientific works. In their biological writings, both Aristotle and Theophrastus are now seen to have avoided trying to construct a taxonomy. Their approach to understanding nature was entirely different, their joint efforts being directed towards discovering natural causes by a method derived from Aristotle's theories of logic, and which sought to elucidate and identify differences of distinctive features in the widest possible general classes. Their works were neither natural histories nor taxonomic enquiries, and until today a true appreciation of their intent has been entirely lacking. Historians of science will have to grapple with the bizarre implications of these findings, for we have here nothing less than the revelation that Western science emerged originally from systematic concepts and methodologies wholly different than had been thought until now.

One of the best contributions is by Alan Gotthelf, co-editor with James Lennox of another seminal work on the subject, *Philosophical Issues in Aristotle's Biology* (Cambridge University Press, 1987). *Theophrastean Studies* also portrays Theophrastus as a founder of ecology, student of pharmacology and historian of religion, and together the two books are of the greatest possible importance for those studying the roots of Western science. □

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