

intermediate phase). On the contrary, Cambron-Goulet's analyses show that the critiques of writing remained fairly consistent throughout antiquity. The volume is rounded off with a comprehensive bibliography, an *index locorum*, an *index verborum* and an 'index des notions' (263–65).

The author's meticulous research, insightful analysis and interesting approach make this book a significant contribution to the study of knowledge transmission up to the end of antiquity. This can be defined as an ambitious and courageous volume, as it seeks to analyse this important theme across the entire span of Ancient Philosophy. Indeed, even if Cambron-Goulet claims at the beginning of the volume (16) that her study does not deal with the *testimonia* on the Presocratics as they do not contain any passage concerning writing, she does in fact discuss these authors in various passages (192–200) and demonstrates interesting interactions between orality and literacy in their works and activities. Cambron-Goulet deserves appreciation for writing a book that has the potential to appeal to a wide audience. Playfully, one could say that, in contrast to the ancient elitist view, her book will undoubtedly provide food for thought for all those engaged in the study of ancient philosophy, and not only to those strictly interested in the theme of orality and literacy, or in the well-known Platonic criticisms.

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COUGHLIN (S.), LEITH (D.) and LEWIS (O.) (eds) **The Concept of Pneuma after Aristotle**. Berlin: Topoi, 2020. Pp. 432. €79.95. 9783982067049.
doi:[10.1017/S0075426924000119](https://doi.org/10.1017/S0075426924000119)

This volume has the ambitious aim of gathering and examining post-Aristotelian conceptions and uses of the pneumatic substance within different philosophical and medical systems up to the early fourteenth century.

Pneuma, whether it is considered as simple outside air, as a vapour-like substance behaving like a fluid responsible for specific bodily and/or psychological functions or as something in between, is certainly one of the most intriguing substances ever to have caught the interest of philosophers and physicians. Its peculiarity lies, at least partially, in its relational nature: marking the continuity between macro- and microcosm, pneuma is the key substance through which the outer atmosphere interacts with the animated body, leading to the questioning of the very relation between nature and soul, mundane and divine, what is observable and what is unobservable. A turning point is certainly represented by Aristotle's conception of pneuma as the instrument through which nature regulates the majority of phenomena (*Gen. an.* 5, 789b8–9), making possible some of the most complex psycho-physical processes (such as perception, the transmission of voluntary movement, the in-formation of the embryo).

Given the twists and turns taken by this particular branch of the Aristotelian legacy, exhaustiveness is not, and understandably so, the guiding principle of this collective work: not each and every testimony concerning pneuma between the pseudo-Aristotelian *On Breath (De spiritu)* and John Zacharias Aktouarios is taken into account (10). The editors do not aim at reconstructing a linear, developmental segment of the history of the concept of pneuma, but rather propose a 'bottom-up approach' (9) according to which, taking textual evidence as a starting point, each ancient source is analysed in its particular context. The reader is thus presented with a rich and diverse array of sources that

significantly contributed to ancient and medieval discourse revolving around *pneuma* as they dialogue with one another.

The first three chapters are devoted to Peripatetic sources: the author of *On Breath*, the only ancient treatise explicitly dedicated to such a substance (Pavel Gregoric); Strato of Lampsacus, whose view on *pneuma*, far from being unitary or systematic, had repercussions on his physiology as well as his psychology (Luciana Repici); the Peripatetic collection known as *Problemata*, with a special focus on the role of *pneuma* within sexual intercourse (Michiel Meeusen). The following two chapters discuss the physiological interpretation and employment of the pneumatic substance on behalf of the most prominent early Hellenistic physicians and medical practitioners: the former deals with Diocles of Carystus, Praxagoras of Cos and Herophilos of Chalcedon (Orly Lewis and David Leith), the latter with Erasistratus of Ceos and Asclepiades of Bithynia (Leith). Let aside the master–pupil relation connecting some of these authors, the two chapters address similar issues and would benefit from being read together as one. During the late fourth to early third century BC, anatomical inquiry, for the first time performed through human dissection (and possibly vivisection) with heuristic purposes, allowed the individuation, naming and functional explanation of previously unknown bodily structures, as well as a better understanding of parts and structures that did not necessarily represent a novelty. In such a milieu, *pneuma* was not taken to be connate (a notion that only Diocles, among the authors mentioned, had retained), but rather entirely derived from respiration. Far from any attempt at simplification, this is just one among the many possible lines of inquiry that these two chapters disclose. Considering the unfortunate absence of extant primary texts and the consequent fragmentary nature of the (indirect) sources, the bottom-up approach proves to be particularly fruitful in the case of Hellenistic medical authors.

The two following chapters are dedicated to the Stoics: one deals with two testimonies by Tertullian in which Cleanthes' pneumatology is described in terms of communion between human and divine realms (Teun Tieleman); the second presents a more general picture of the physical nature of *pneuma* according to Zeno, Cleanthes and Chrysippus (Ian Hensley). Complementary to the Hellenistic medical section is that concerning the Pneumatic School (Sean Coughlin and Lewis), which succeeds in concisely presenting the state of knowledge about a medical sect whose debts to Stoicism have probably been overstated.

The three following chapters constitute the Galenic nucleus of the book, carefully addressing Galen's pneumatology (Peter N. Singer), his anatomical and physiological account of the lung (Julius Rocca) and the psychological implications of bodily (in particular, pneumatic) alterations (Julia Trompeter).

The two closing chapters respectively concern Proclus' conception of *ochēma* (vehicle of the soul) (Bettina Bohle) and the innovative pneumatology of John Zacharias Aktouarios (Petros Bouras-Vallianatos).

In addition to being new in its approach, encouraging the reader to actively search for connections among authors, the book succeeds in helping her navigating the *mare magnum* of (some of) the primary and secondary literature dealing with *pneuma* after Aristotle. The difficulty of a subject that is, to paraphrase Luciana Repici, inherently deprived of the possibility of distinguishing heterodoxy from orthodoxy (57), mirroring the inevitable entanglements between its medical and its philosophical ranges of application, makes the collective work all the more admirable.

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