

Cristina Viano (ed.), *Aristoteles chemicus: Il IV libro dei Meteorologica nella tradizione antica e medievale* (International Aristotle Studies, vol. 1) (Sankt Augustin: Academia Verlag, 2002), pp. 206 EUR 34.50 ISBN 3-89665-174-5

The awareness of the importance of the fourth book of Aristotle's *Meteorologica* has been growing in the past years. Historians of ancient philosophy have made it central to discussions of form, function, and the hierarchy of matter, particularly as presented in the final chapter. Additionally several studies have demonstrated that medieval and Early Modern interpretations of *Meteorologica* IV were seminal for alchemy, medicine, and corpuscular matter theory. *Meteorologica* IV's connections to alchemical theory form the common theme for most of the essays of *Aristoteles Chemicus*, edited by Cristina Viano. The description of this work as "chemical" takes its roots from Ingemar Düring's 1944 translation and commentary. Viano's volume justifies this potentially anachronistic title by showing how commentators, alchemical writers, and natural philosophers used this book as a source for theories of the physical transformation and transmutation of matter.

The collected essays contained in this book, written in either French or Italian, treat a wide range of authors beginning with Aristotle. Studies on the Greek commentators, the Islamic tradition and the Latin Middle Ages follow. As a whole this book admirably uncovers many prominent themes involving the influence and transmission of *Meteorologica* IV by examining a number of important primary sources that hitherto have had little modern scholarly treatment.

Throughout much of the twentieth century *Meteorologica* IV was subject to questions over its authorship because of supposed endorsements of atomism and mechanical causation. Now scholarly opinion agrees that it is authentic. Nevertheless, the first essay, by Lucio Pepe, uses this debate to set the scene for a clear presentation of many of the key ideas of *Meteorologica* IV. Pepe contends that the depiction of the elements and their qualities in this book corresponds to the rest of the Aristotelian corpus. He maintains that although the elements and qualities are the building blocks of more complex levels of matter their powers are not mechanistic because they are subordinated to the forms and purposes of the higher levels of matter. Less clear, however, is the discussion of pores. The reader is left wondering, even if pores are not meant to be the basis for "a universal structure of matter," in what sense an homeomereous substance is homeomereous if pores, filled with a more subtle (Averroes' solution) or easily affected (Olympiodorus') substance, explain its passive properties.

The two extant Greek commentaries on *Meteorologica* IV, written by Alexander of Aphrodisias (2nd c. A.D.) and Olympiodorus (6th c. A.D.), are taken up by Carlo Natali and Cristina Viano respectively. Despite Alexander's commentary having been translated twice into English, Natali's essay represents the first piece of scholarly analysis dedicated to it in perhaps centuries. Natali demonstrates how Alexander created a "companion" to Aristotle, by systematizing and in effect making additions to the text, some of which closely correspond to supplemental phrases in twentieth-century translations of Aristotle, included to make the work more readable. Viano rightfully rehabilitates Olympiodorus, whom previous scholars had deemed trivial and unoriginal. Rather, his commentary, to a more satisfying degree than Alexander's, solves textual puzzles, such as the question of the place of this work in relation to the rest of the

Meteorologica and the problem of pores. Viano suggestively leaves open the question of the identification of Olympiodorus with an homonymous author of a commentary on Zosimos' Κατ'ἐνέργειαν by revealing reverberations of Greek alchemical doctrine and language in the Aristotelian commentary.

The following four pieces treat the Islamic tradition. Paola Carusi demonstrates that the Arabic translations, or rather paraphrases, of both Aristotle's and Olympiodorus' texts appear to be influenced by alchemical writings, those of Balīnūs, Ġābir ibn Hayyān, and Abū' al-Qāsim Maslama al-Mağrītī, which advocated a hierarchy among the prime qualities; Pinella Travaglia discusses the *Meteorologica* as a source for the Hermetic writing *Kitāb sirr al-halīqa*; Carmela Baffioni concludes that there are only slight similarities between the Aristotelian work and the Encyclopedia of the Brethren of Purity; Ahmad Hasnawi sustains that Avicenna rearranged the Aristotelian corpus in his *De actionibus et passionibus* by separating the fourth book of the *Meteorologica* from the previous three. Despite Avicenna's rejection of the possibility of the transmutation of metals, he employed alchemical concepts of distillation and vapors to interpret Aristotelian ideas.

Essays by Michela Pereira and Chiara Crisciani conclude the book by linking the Islamic and Greek traditions to medieval Latin writings. According to Pereira the Pseudo-Lullian *Testamentum* adopts and adapts the Aristotelian terminology of digestion to explain the transmutation of substances. The *Testamentum*, influenced by Avicenna's *De congelatione et conglutinatione lapidum*, which was appended to thirteenth-century translations of *Meteorologica* IV, and Albertus Magnus' commentaries and *De mineralibus*, integrates the sulfur/mercury theory of metals with the teachings of Aristotle. Additionally in the *Testamentum*, Avicenna's claim that transmutation of metals can only occur by reducing substances to their prime matter becomes central to both alchemical theory and practice. Crisciani demonstrates that Petrus Bonus' influential *Pretiosa Margarita* utilized *Meteorologica* IV to give authority to alchemy as a science by arguing for a developmental view of Aristotle whereby in his allegedly earlier work, the *Meteorologica*, Aristotle rejected the possibility of alchemy, while in his mature writings, the [Ps.-Aristotelian] *Secretum secretorum*, the Philosopher had come to his senses and recognized the validity of this science.

Collectively these articles easily convince that *Meteorologica* IV, and the final chapter of the third book, were crucial to alchemical theory from antiquity through the Middle Ages. The subtle and detailed philological arguments of many of these studies reveal how the technical vocabulary became modified, transformed, and adopted within non-Aristotelian systems of thought. This book's greatest fault lies not in its conclusions but in its scope. As a result of concentrating on the links to alchemy many important medieval commentators, including [Ps.] Thomas Aquinas, Pierre d'Auvergne, Themo Judei, and even Averroes, receive little attention. Furthermore, the focus on alchemy skews the presentation of the *fortuna* of *Meteorologica* IV. It is easy to imagine a companion volume entitled *Aristoteles medicus* that would treat Galen, Avicenna, Pietro d'Abano, and Ugo Benzi among others. Moreover, interpretations of this book were not always designated for use in the more practical arts and sciences; *Meteorologica* IV, among some interpreters, was little different from the rest of the books of natural philosophy. For example, some medieval *quaestiones* dedicated to the hylemorphism in *Meteorologica* IV are identical to those found in treatments of *De generatione et*

corruptione. Nevertheless, *Aristoteles chemicus* makes a solid start in understanding the tradition of this treatise. Its inability to cover the entirety of the tradition is evidence that much more work needs to be done before we fully come to grips with the Aristotelian tradition.

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