

EMMANUELE VIMERCATI (ED.), *THE RECEPTION OF JOHN PHILOPONUS' NATURAL PHILOSOPHY. ARISTOTELIAN SCIENCE FROM LATE ANTIQUITY TO THE RENAISSANCE*, BLOOMSBURY ACADEMIC, LONDON – NEW YORK – OXFORD – NEW DELHI – SYDNEY 2024 (BLOOMSBURY STUDIES IN THE ARISTOTELIAN TRADITION), XIV, 247 PP., ISBN: 9781350416277.

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The volume consists of the editor's introduction and of 13 chapters, each addressing a different subject. As Vimercati's introduction explains (p. 1), the volume originates from a cycle of workshops held at the Pontifical Lateran University in Rome in 2022–2023. It is divided into three main parts, covering different time spans. Part I is devoted to Philoponus's natural philosophy against the background of late antique philosophy, Part II to the fortune of Philoponus's natural philosophy in the Arabic, Byzantine and Latin Middle Ages, and Part III to its fortune in the Renaissance. In what follows, I will provide a brief outline of each contribution, accompanied by some remarks. Given my lack of competence concerning the Renaissance period, my remarks will mostly deal with the contributions in parts I and II.

Part I: Late Antiquity (and Its Legacy)

Chapter 1 (« John Philoponus' absolute place and its reception by Francisco of Toledo ») by Ioannis Papachristou deals with Philoponus's theory of place and an episode of its Renaissance fortune. Papachristou outlines Philoponus's theory of place as a three-dimensional extension (a subject developed more fully in his recent monograph on the topic).¹ Such a theory is known for its departure from Aristotle's view of place as limit of the containing. Papachristou indicates the possibility of Philoponus's influence on the alternative views of internal and external space in the Renaissance, both relying on the notion of place as an extension. The Jesuit Francisco of Toledo, in his commentary on the *Physics* (1573), supports the former view, internal place, by resorting to Philoponus's characterisation of place as a measure of body. However, Papachristou stresses

¹ IOANNIS PAPACHRISTOU, *John Philoponus on Physical Place*, Leuven University Press, Leuven 2021 (Ancient and Medieval Philosophy. De Wulf-Mansion Centre. Series I, LX).

that this factual convergence takes place for very different ends: unlike Francisco, Philoponus did not conceive of place as internal to body, rather of body as coming to be in place, despite the fact that no place can be devoid of body.

Chapter 2 (« Philoponus on natural and impressed power ») by Emmanuele Vimercati stresses how Philoponus's unaristotelian revisions of the notion and role of power (δύναμις) allow him to accomplish a unified picture of the inner working of nature. On the one hand, in his commentary on *Physics* II, Philoponus departs from Aristotle in stressing the analogy, rather than the differences, between the movement of animate, inanimate, and simple bodies (i.e. the elements), insofar they all possess an inner principle of movement. On the other hand, in his fragmentary arguments from *Against Aristotle*, preserved by Simplicius, Philoponus criticises the proof for the infinity of movement from *Physics* VIII 1, 251a10–23 by denying that a natural being must pre-exist its potentiality for movement and receive it from an external cause. The criticism results in a revised picture which rethinks potentiality as an intrinsic property of substance and removes the necessity of an eternal succession of movers. Such a transfer of the potentiality for movement entirely within the movable is completed by Philoponus's rejection of the role of two external factors, place and medium, in the account of movement. Finally, according to Philoponus's account of heavenly motion, the outermost sphere is moved by divine power and moves the adjacent firesphere supernaturally (ὑπερφυσίς). A famous passage from Philoponus's *De opificio mundi*² provides a glimpse into the integration of all these motive powers into a single, consistent picture. The subject carefully analysed by Vimercati may provide ground for further interesting investigation. For instance, Vimercati himself mentions as still « controversial » (p. 27) the question concerning the inspiration (Stoic vs. Neoplatonic) of Philoponus's revised definition of nature as « life (ζωή) or a power (δύναμις) which has descended into bodies (καταδεδυκυῖα διὰ τῶν σωμάτων), and which moulds and manages them (διαπλαστική αὐτῶν καὶ διοικιστική) » (Vimercati's translation, p. 26).³ Additionally, one may wonder if Philoponus's account of power/potentiality as an intrinsic cause of movement could be linked to the account of the desire of bodies for their proper station provided by the corollary on place, within the framework of Philoponus's rejection

² JOANNIS PHILOPONI *De opificio mundi libri VII*, I, 12, ed. GUALTERUS REICHARDT, Teubner, Leipzig 1897 (Scriptores sacri et profani, I), p. 28.26–29.7.

³ Greek text in IOANNIS PHILOPONI *In Aristotelis Physicorum libros tres priores commentaria*, ed. HIERONYMUS VITELLI, Reimer, Berlin 1887 (Commentaria in Aristotelem Graeca, 16), p. 197.34–35. On the issue see JAMES E. MCGUIRE, « Philoponus on *Physics* II 1: Φύσις, Δύναμις, and the Motion of the Simple Bodies », *Ancient Philosophy*, 5/2 (1985), p. 241–267; and EDWARD M. MACIEROWSKI, RICHARD F. HASSING, « John Philoponus on Aristotle's Definition of Nature », *Ancient Philosophy*, 8/1 (1988), p. 73–110.

of the Aristotelian notion of place and of its causal action on moving bodies.⁴ Finally, one may wonder if, and how, Philoponus's view concerning the bodies' intrinsic possession of a power of motion is to be reconciled with a passage from his commentary on the *De anima* where Philoponus, in line with Aristotle's *Physics* VIII 4, claims that natural bodies are not moved by nature, rather, they are set in motion by an external mover.⁵ This is specifically said to be the case of the movement of the elements moving towards their proper place, which according to this passage is a movement contrary to nature and can only be said to be according to nature in a qualified sense (i.e. insofar as it is toward their natural place). It is possible that the discrepancy is only apparent, or that its solution lies in the different origin of the material (e.g. Ammonius's teaching vs. Philoponus's own opinion); in any case, the subject may provide material for future research.

Chapter 3 (« Philoponus on the nature of the heavens. Revisiting some old debates »), by Marc-Antoine Gavray, covers a widely studied ground, that is, Philoponus's criticism of the incorruptibility of the heavenly substance. However, while this topic has been usually addressed with a focus on Philoponus's criticism of Aristotle's theory of aether in his *Against Aristotle*,⁶ Gavray deserves credit for integrating the picture with similar criticism from other works by Philoponus, at the same time carefully considering how the context of provenance (e.g. the different polemical target or literary genre) may have affected Philoponus's treatment of the subject and thus rightly avoiding to jump to conclusions about the internal evolution of Philoponus's thought.

Chapter 4 (« John Philoponus on being human ») by Mark Edwards⁷ focuses on Philoponus's view of the human soul both as a biblical commentator in the *De opificio mundi* and as an Aristotelian commentator. The gist of the author's analysis is that Philoponus held a Platonic interpretation of Aristotle, including his view concerning the soul's immortality and separability, which enabled him to bring Aristotle into agreement with Christian belief. To the author's discussion of this point, one may add that of course Philoponus did not achieve this « Platonisation

⁴ IOANNIS PHILOPONI *In Aristotelis Physicorum libros quinque posteriores*, ed. HIERONYMUS VITELLI, Reimer, Berlin 1888 (Commentaria in Aristotelem Graeca, 17), p. 581.18–31.

⁵ IOANNIS PHILOPONI *In Aristotelis De anima libros commentaria*, ed. MICHAEL HAYDUCK, Reimer, Berlin 1897 (Commentaria in Aristotelem Graeca, 15), p. 65.1–66.28 (the same text is mentioned by Knox in chapter 12 of the volume, albeit for entirely different reasons). The text can be contrasted with p. 120.24–33 (concerning the participation of the world soul even by inanimate bodies), rightly mentioned by VIMERCATI (p. 26 and footnote 31) as suggesting an assimilation between bodily power and soul.

⁶ The reference work is CHRISTIAN WILDBERG, *John Philoponus' Criticism of Aristotle's Theory of Aether*, De Gruyter, Berlin – New York 1988 (Peripatoi. Philologisch-historisches Studien zum Aristotelismus, 16).

⁷ Pages 66–67 of the contribution should be compared with MARK EDWARDS, *Aristotle and Early Christian Thought*, Routledge, London – New York 2019 (Studies in Philosophy and Theology in Late Antiquity), p. 161.

of Aristotle » himself; rather, in this regard he stood in a long tradition of Neoplatonic commentators of Aristotle, a notable case being Philoponus's own Alexandrian teacher Ammonius.

Part II: The Medieval Tradition

Chapter 5 by Carmela Baffioni is devoted to « Proclus, Philoponus and the Brethren of Purity on the eternity of the world ». It contains the first comparison between Philoponus's arguments against the eternity of the world and the encyclopedia of the Brethren of Purity, thus allowing for the first time an assessment of their reciprocal relationship. Baffioni quotes (p. 83) *Ep.* 39 and 40 of the Brethren of Purity, both of which reject the notion that the world may at any instant subsist without God, who is its cause. The rejected analogies are those of the house and its builder, and of the book and its writer. The acceptable analogies are the speaker and his speech, the torch and its light, sunlight and air, fire and its heat, unity and number. While Baffioni rightly remarks that the analogies of the torch, sunlight, and fire are found in Philoponus too, it is noteworthy that at the same time some of them happen to be more widespread analogies either for Neoplatonic emanation or for the inner trinitarian relationships in Christian theology, also available in Arabic;⁸ the same goes for the Brethren's analogy (*Ep.* 15, Baffioni p. 81), found in Syrianus⁹ but spread via Pseudo-Dionysius (*De divinis nominibus* II, 4),¹⁰ of the lamps illuminating or darkening a room at the same time as they are introduced or removed respectively. However, despite their use of Neoplatonic emanationistic imagery, the Brethren depart from emanationism in that they stress that God's production of the universe is not necessary, but it is the result of God's will.

Chapter 6 by David Twetten is devoted to « Averroes as critic and continuator within the heritage of Philoponus's philosophical theology ». Among the doctrinal elements that according to Twetten represent Philoponus's legacy to Averroes, the main one appears to be Averroes's critical reception of Philoponus's argument for the corruptibility of the universe based on the finitude of bodily power. Twetten rightly highlights Averroes's misreading of Alexander of Aphrodisias as a proponent of Philoponus's argument. Twetten explains this by pointing to Arabic version D15 of Alexander's *De providentia*. In this Arabic adaptation, entitled *On the*

⁸ A famous example of the former is of course Plotinus, *Enn.* V 1[10], 6.25–39; for the latter, see some examples in RACHID HADDAD, *La trinité divine chez les théologiens arabes (750–1050)*, Beauchesne, Paris 1985 (Beauchesne Religions), p. 119–120.

⁹ STEPHEN GERSH, *From Iamblichus to Eriugena. An Investigation of the Prehistory and Evolution of the Pseudo-Dionysian Tradition*, Brill, Leiden 1978 (Studien zur Problemgeschichte der antiken und mittelalterlichen Philosophie, 8), p. 197.

¹⁰ *Corpus Dionysiacum I. Pseudo-Dionysius Areopagita. De divinis nominibus*, ed. Beate Regina Suchla, De Gruyter, Berlin – New York 1990 (Patristische Texte und Studien, 33), p. 127.4–128.2.

Governance of the Spheres (*Fī l-tadbīrāt al-falakiyya*), Philoponus's argument is incorporated into Alexander's text. Twetten takes the relevant Philoponian passage to be a « counterfactual statement » (p. 99), given the disavowal that immediately follows in the Arabic text as printed by Ruland; at the same time, according to Twetten the doctrine expressed by that disavowal may have served as the inspiration for Averroes's refutation of Philoponus's argument (p. 100). However, Ruland specifies that the disavowal at hand is found as a marginal note in the Escorial manuscript that he employed for his edition.¹¹ Therefore, on the one hand D15 simply contains Philoponus's argument, thus making it all the more conceivable that Averroes could read Alexander as a proponent of the Philoponian argument. On the other hand, the fact that the rejection of Philoponus's argument is a marginal note leaves open other possibilities concerning its exact relationship with Averroes's solution to Philoponus's argument (e.g. the marginal note could be inspired by, rather than inspire, Averroes's solution).

Chapter 7 by Tommaso De Robertis is entitled « Philoponus's natural philosophy in the medieval Byzantine world: Psychological and cosmological debates ». De Robertis's contribution is a welcome addition to scholarship concerning Philoponus's fortune in Byzantine philosophy. The chapter selects two specific doctrinal points of Philoponus's natural philosophy that possess at the same time philosophical and religious significance, in order to assess their Byzantine reception. The first point is Philoponus's doctrine of the soul's « double entelechy », from his commentary on Aristotle's *De anima*; the other is Philoponus's criticism of Aristotle's theory of aether (itself a pillar of Aristotelian cosmology), set forth in his lost *Against Aristotle*, in part accessible to Byzantine scholars through Simplicius's commentaries on *On the Heavens* and on the *Physics*. The « double entelechy » doctrine turns Aristotle's open-ended statements about the immortality of the soul, or of a part of it only, into a positive theory of the immortality of the rational faculty of the soul. Philoponus's criticism of the Aristotelian fifth element of the heavenly sphere revolves around the invalidity of the inference from the circular movement of the heaven to its substance. Philoponus's « double entelechy » of the soul as well as several aspects of his criticism of aether reappear in Byzantine philosophy, thus attesting to the suitability of both these Philoponian tenets for the agenda of Byzantine philosophers.

Chapter 8 (« Philoponus and the renewal of Aristotelian cosmology in the late Latin Middle Ages ») by Alessandro Ghisalberti is devoted to some renowned modifications of Aristotelian natural philosophy during the thirteenth and fourteenth centuries. Ghisalberti stresses the fact that such modifications result

¹¹ HANS-JOCHEN RULAND, « Die arabischen Fassungen von zwei Schriften des Alexander von Aphrodisias. Über die Vorsehung und Über das liberum arbitrium », Ph.D. Diss., Universität des Saarlandes, Saarbrücken 1976, p. 92.

from the encounter of the inner working of the Aristotelian universe with the notion of the radical contingency of the world and God's omnipotence, an encounter which was called for by Tempier's famous condemnation of 1277. Ghisalberti first introduces the most famous representative of the changing Aristotelian cosmology in Latin scholasticism, John Buridan. Buridan's crucial *Questions on the Heavens*, of which Ghisalberti provided an Italian translation,¹² manage to depart from Aristotle on a number of crucial issues thanks to the distinction between natural and absolute possibility. Thus, the copenetration or coexistence of bodies in the same physical space, as well as the existence of vacuum, the world's rectilinear motion, the unicity of the universe and of its centre, while impossible naturally, become possible hypotheses resting on divine omnipotence. However, Ghisalberti does not confine his reconstruction to Buridan. The chapter includes an outline of the history of impetus theory, one of the most famous contributions of Medieval Scholasticism to the revision of natural philosophy, which paved the way for the subsequent developments of the Scientific Revolution. Its starting point in late antiquity is Philoponus's revision of the Aristotelian account of motion at a distance in favour of the theory of a « borrowed power » initiated by the mover and dwelling in the moved object once it is no longer in contact with the mover. In addition to Buridan, who applied impetus theory to projectile motion, the acceleration of falling bodies, and heavenly motion, Ghisalberti includes mention of the Arabic philosophers who either upheld the theory (Avicenna) or criticised it yet transmitted it to the Latin Middle Ages by doing so (Averroes), as well as its proponents other than Buridan in Latin Scholasticism (such as Franciscus de Marchia). The variety of versions of the theory and of reasons for its rejection by Medieval philosophers shows the potential of this theory for laying bare their main assumptions in natural philosophy. Thus, for instance, among the Latin proponents, Oresme shares with Buridan the explanation of the heavenly movement through impetus theory (p. 136); however, unlike Buridan, who questioned the traditional role of the angelic intellects, Oresme appears to harmonise the two causes of explanation. Among the opponents, Averroes is mentioned as rejecting impetus theory, because in his view nature cannot act within and between bodies as if it were a soul (p. 135). Similarly, Ockham rejects the notion of an impressed force because he deems it to be causeless, thus preferring to provide aporetic statements on the subject (p. 134).

Part III: Renaissance

Chapter 9, « Why Aristotle? Patterns in Renaissance philosophy », by Paul Richard Blum, deals with Philoponus in an indirect way. The author analyses « some

¹² GIOVANNI BURIDANO, *Il cielo e il mondo. Commento al trattato «Del cielo» di Aristotele*, ed. ALESSANDRO GHISALBERTI, Rusconi, Milano 1983 (I classici del pensiero).

Renaissance editions, introductions and other programmatic statements on Aristotle [...] to see how the editors or commentators viewed the role and importance of this very philosopher » (p. 145). Both the introduction and the conclusion of the chapter indicate that the analysed texts, stemming from the fifteenth and sixteenth centuries, show a shifting interest in the Renaissance fortune of Aristotle, from moral to natural philosophy, corresponding to the transition from « humanist approach » to the « later methodic and scientific interest » (p. 158). Blum concludes that Philoponus's fortune is, naturally enough, especially linked with the latter stage of Aristotle's reception.

Chapter 10, « Philoponus's metaphysical cosmology in Renaissance debates », is authored by Pietro Daniel Omodeo. Omodeo's contribution deliberately departs from what we might call the traditional « genealogical » approach to Philoponus's fortune in the Renaissance – an approach which he deems to be classically illustrated by Koyré and Kuhn – in order to adopt a « more contextualist approach » (p. 167), i.e. an approach that shows how Philoponus's Renaissance fortune is embedded in the ongoing debates of the sixteenth century. Omodeo especially stresses Philoponus's role in what he labels « metaphysical cosmology », i.e. the metaphysical foundations of cosmology during that age. Thus, for instance, Philoponus's criticism of aether as a fifth heavenly substance appears to have anticipated and provided with a theoretical background the Renaissance debate over the fluidity of the heavens. At the same time, the Renaissance circulation of Philoponus's *Contra Proclum* (first published in Venice in 1535 at the hands of Vittore Trincavelli) provides a philosophical foundation for creationism within the framework of a heated debate over the eternity of the world, against the non-creationistic views maintained by intellectuals as diverse as the Paduan Aristotelian Cesare Cremonini, Nicolaus Cusanus, and Giordano Bruno. Philoponus's commentary on the *De anima*, which contains a distinctive solution to the issue of the immortality of the soul, joins the ranks of other Aristotelian commentators in elucidating this issue, at the same time providing a psychological analysis capable of contributing to the issue of the cause of celestial motion and the animation of the heavens (an issue that in the Aristotelian tradition goes back to the interpretation of *Metaphysics* XII and *De caelo* II). In this context, Omodeo mentions the relevance of the publication of Pseudo-Philoponus's commentary on *Metaphysics* by Francesco Patrizi (Ferrara, 1535).

Chapter 11, « Francesco Piccolomini (1523–1607) and Giacomo Zabarella (1533–1589) on Philoponus's definition of prime matter », by Antonio Petagine, explores the Renaissance fortune of Philoponus's concept of matter. In some of his works, particularly book XI of *Against Proclus*, Philoponus abandons the Aristotelian view of matter as a purely indeterminate substrate, in favour of its characterisation as essentially possessing three-dimensionality. Petagine shows that two of the most prominent Paduan Aristotelians of the fifteenth century, Piccolomini and

Zabarella, subscribe to important aspects of the Philoponian characterisation of matter, accommodating it into the scholastic debate over the potential or actual nature of matter and its relationship to dimensions.

Chapter 12 (« Philoponus's contribution to Copernicus's doctrine of gravity ») by Dilwyn Knox proposes an updated version of a hypothesis put forth by the author in some of his previous publications, to which he refers. Knox's hypothesis is that Copernicus's account of gravity in his *De revolutionibus orbium coelestium* contains doctrinal echoes of Philoponus's commentary on the *De anima*, particularly concerning the non-natural motion of the particular elements detached from their main mass. Knox defends his own hypothesis against the rival hypothesis of Anna De Pace (who favours Plutarch's *De facie* as Copernicus's source) and against the criticism raised by the editors of the 2015 *Belles Lettres* edition of Copernicus's *De revolutionibus*.

Chapter 13 (« Philoponus in Galileo's early works ») by Flavia Marcacci presents the reader with a balanced assessment concerning the influence of Philoponus on Galileo's early works such as the collection of *Iuvenilia* and the *De motu antiquiora*, where Philoponus's name occurs with frequency. On the one hand, Marcacci points out the convergence of Philoponus's and Galileo's views concerning the creation of the world, the rejection of aether as a distinct heavenly element, and elemental motion; she also allows for the possibility that Philoponus's Neoplatonic theory of the « praeternatural » motion of the firesphere (i.e. a motion that is not natural for fire, but above its nature) influenced Galileo's formulation of a circular *motus neuter*, i.e. neither natural nor violent. On the other hand, Marcacci warns against overemphasising Philoponus's contribution to Galileo's thought: « this relevance should be limited to certain aspects of Galileo's perspective, without being overstressed in the absence of further philological evidence »; and she specifies that « a distinct line of influence from Philoponus to Galileo is often hard to recognize beyond the aspects explored in this chapter » (p. 231).

Overall, the volume refines and advances our knowledge of Philoponus's doctrines on natural philosophy on several points, most importantly those that entail a departure from 'orthodox' Aristotelianism. The width of the chosen chronological timeframe and the variety of linguistic milieus in relation to which Philoponus's fortune is investigated deserves special appreciation and makes the volume particularly useful for scholars, especially for those working in the fields of the history of philosophy and the history of science.