

BMCR 2022.12.04

Filosofia, filologia e scienza in età ellenistica

Max Bergamo, Raffaele Tondini, *Filosofia, filologia e scienza in età ellenistica. L'Ippogrifo*, 7. Milan: Ledizioni, 2022. Pp. xvi, 182. ISBN 9788855266406 €19,90.

Review by

Barbara Castellani, Università Ca'Foscari; Université Paris 1 Panthéon-Sorbonne.
barbara.castellani@unive.it

[Authors and titles are listed at the end of the review.]

The essays collected in this volume are the result of two intense study-days held in Padua, 15-16 June 2017. The dense pages reflect the lively debate over the relationships between philosophy, philology, and science in the Hellenistic period. This volume, featuring works by both established academics and young researchers, highlights the structural relationships and reciprocal exchanges between diverse but as yet only weakly defined fields of knowledge in Hellenistic culture. As the editors of the volume rightly warn in the introduction, we must avoid the error of projecting into the past our contemporary but alien sectoral specialism. The essays that follow therefore set out to tackle Hellenistic thought from an interdisciplinary perspective. (My account of their content does not follow the order in which they appear in the volume; I have grouped them according to whether philosophy, philology, or science is the dominant theme.)

The relationships between philology and science are investigated in the contributions of Luciano Bossina and Federica Benuzzi. Bossina traces the arduous path in the modern period that led to the recognition of ancient science within the field of classical philology. The natural sciences in particular came to the attention of philologists only when *Altertumswissenschaft* began to set as its goal an integrated understanding of ancient civilizations, *i.e.*, the knowledge of ancient humanity in itself, rather than simply the promotion of literary achievement. So, science could have structural and integral importance within philological studies, Bossina argues, only once people recognized its role in forming a comprehensive understanding of the ancient world, when they recognized the level of excellence achieved by the ancients in these fields and, finally, when they saw how science could make ancient civilizations seem relevant to modern scholarship. The fruits of this process reached full visibility with protagonists such as Ulrich von Wilamowitz-Moellendorff and Eduard Schwartz, who gave Hellenistic science appropriate prominence at both the didactic and socio-political level: indeed, they proposed a model of gymnasium and high-school studies that combined literary subjects and scientific disciplines for an integrated understanding of ancient civilizations.

Benuzzi's contribution focuses on the figure of Eratosthenes of Cyrene, the scientist, astronomer, geographer, and mathematician. Less well known are his philological interests, traceable mainly to a work entitled *On Ancient Comedy*. From it Benuzzi takes four case studies that aim to reveal dynamics of interaction between Eratosthenes' philology and science. She shows that this interaction occurs on the levels both of content and of methodology. The interpretation of texts of ancient comedy could make use of the results of scientific research in the strict sense, for instance from the field of physiology and zoology (as in the case of the interpretation of the term κύτταρος, "cell of a honeycomb"). On a methodological level, intertextual comparison proves to be a central heuristic tool within the philological *modus operandi* of Eratosthenes. This intertextuality can be understood, Benuzzi argues, as the philological application of a universal heuristic criterion, centered on ἀναλογία. Indeed, much of Eratosthenes' strictly scientific work is based precisely on the use of ἀναλογία as a tool for solving complex problems.

Franco Montanari's essay is much more philological, highlighting how Alexandrian philology marked a major intellectual and cultural turning point in the history of thought. He points out that by the Alexandrian period, editors reconstructed texts through both conjectural criticism and the choice of variants, where they realized that each copy underwent its own idiosyncratic transmission. Precisely in order to express doubt about the authenticity of certain verses, Zenodotus invented the ὀβελός; it indicated a proposal to expunge. The introduction of textual and philological doubt was a real revolution, both noting critical judgment and allowing others to form their own view. Indeed, this mark can be seen as the birth of philology: the ὀβελός meant not only correcting a single copy of the work, but intervening in the work as such. We are thus indebted to the Alexandrian grammarians for the idea of a reparative textual philology. In this way the period from Zenodotus to Aristarchus saw a decisive turn in the direction of, so to speak, a “scientific” philology.

Science is the principal topic of Mariaelena Talin's contribution. She focuses on the work of Pappus of Alexandria, a Greek mathematician of the fourth century AD. His work allows us to reconstruct a debate rooted in the Hellenistic era: the relationship between theoretical and applied sciences. Talin focuses her analysis on the use of the term μηχανική in the eighth book of Pappus' *Collectio*. This term is initially employed with an all-encompassing value (in the general sense of μαθηματική), but is then used in a more specific way (linked, in fact, to geometry). This terminological confusion is due to the coexistence of different influences: first, the Hellenistic background and Archimedes; then, nascent Neoplatonic debate; finally, the awareness of the validity of mechanical studies and the desire to redeem them in the light of a more concrete principle: utility in everyday life. Despite the variety of matrices that influenced Pappus, it is clear that the reflections developed in the text arose within the cultural richness of Hellenistic thought, which strongly affected even this fourth-century AD scientist.

The contributions of Max Bergamo and Matthieu Réal deal with philosophical topics. Bergamo, through the analysis of the work of Diogenes of Babylon, the fifth scholarch of the Stoa, focuses on the dialectic between variety and unity of knowledge typical of the Hellenistic age. On the one hand, he shows the breadth of interests that could characterize the work of a single thinker; on the other hand, he displays the unitary approach with which the contributions of different disciplines were interpreted within a systematic and coherent framework that privileged philosophy. Specifically, relying on the crucial Stoic concept of λόγος, the authors show how Diogenes manages to hold together the philological-allegorical interpretation of the texts of the poetic tradition (in particular, the mythical episode of the birth of Athena from the head of Zeus) and physiological-linguistic reflection on the seat of the directive part of the soul. Thus, the philological-allegorical aspect and the physiological-linguistic aspect prove to be inextricably connected to the theoretical edifice of Stoic philosophy, particularly physics, physiology, and psychology. Thanks to the integration in such a systematic framework, both aspects end up representing a unitary theoretical discourse, one that encompasses the various fields of knowledge and disciplinary domains at stake.

Réal addresses the delicate issue of the fate of both Aristotle's library and the catalogues of his works in the Hellenistic period. Specifically, the essay reconstructs themes and functions of the catalogue of the works of Aristotle and Theophrastus compiled by Andronicus of Rhodes in the first century BC, of which only a few fragments remain. The *Preface to the Life, Testament and Catalogue of Aristotle's Works* by Ptolemy the Stranger provides one piece of evidence for this catalogue. The *Preface* is transmitted only in the Arabic tradition, whose edition, translation (the first in Italian) and commentary are provided in an appendix to the essay. Starting from an analysis of this precious source, Réal argues that the catalogue should be understood as a preamble to the study of, and commentary on, Aristotelian treatises. The origin of the six preliminary questions that Neoplatonic commentators on Aristotle dealt with at the beginning of their commentaries can also be traced back to this catalogue.^[1] Therefore, the late Hellenistic period seems to constitute a key juncture for the history of Aristotelian philosophy, since rigorous methods of hermeneutic investigation were developed then – Andronicus' catalogue being a significant example.

The short contribution by Lucio Russo (whose theses are expanded in a book currently in press) deals with Hellenistic culture in general. Russo focuses specifically on a two-year period, 146-145 BC, which he sees as a turning point in the history of the Mediterranean world. From a political-military point of view, Rome became *de facto* master of the whole Mediterranean. This conquest was at the origin of a sudden and drastic reset of intellectual activities, a real cultural revolution that affected all fields of knowledge, from philosophy to linguistics, from science to technology, from astronomy to geography. For example, geography had come to be characterized by the abandonment of quantitative methods and a drastic reduction in knowledge of further-flung regions. Unfortunately, the resumption of studies in the imperial era led only to a very partial recovery of more ancient knowledge.

To complete the volume, there is a rich final bibliography, followed by indexes of passages and of ancient and modern names, very useful tools that greatly facilitate the consultation of the essays.

As I have tried to show, the entire volume is first and foremost characterized by a marked interdisciplinarity, which therefore makes it interesting in the eyes of historians, philologists, and historians of philosophy and science. This aspect perfectly reflects the interdisciplinary character of Hellenistic culture, the exchange and dialogue among different fields of knowledge with their blurred and permeable borders, as the work aims to highlight. In fact, the interdisciplinary method seems to be the real common thread of the essays, which cover a wide range of specific topics that are very distant from each other.

Furthermore, another distinguishing feature of the contributions is the extraordinary respect for the sources reported: all the theses are well-documented and argued starting from the careful analysis of evidence, sources, and *testimonia*, with convincing arguments that are presented as innovative compared to the current state of the art. (The volume also engages extensively with existing secondary literature.)

Finally, the essays are characterized by the highly specialized nature of the case studies addressed, which makes the volume mostly suited for use by experts in the field. The specificity of the issues examined and the polyphonic character of the volume contribute to shedding new light on the Hellenistic era, which, far from being a cohesive, unitary, and monolithic period, reveals a remarkable multifaceted nature. Themes and research paths for future enquiries are thus suggested.

Authors and titles

Max Bergamo, Raffaele Tondini, *Introduzione* (1-6)

Luciano Bossina, *Altertumswissenschaft e scienza. Qualche nota storiografica, da Wolf a Schwartz* (7-28)

Franco Montanari, *L'invenzione della filologia: il rivoluzionario ὀβελός* (29-44)

Max Bergamo, *Varietà e unità dei saperi in Diogene di Babilonia* (45-66)

Mariaelena Talin, *Pappo di Alessandria sulla meccanica. Memorie ellenistiche ed echi neoplatonici* (67-82)

Matthieu Réal, *“Ex commentario sapere”: Andronico di Rodi, Tolomeo e l'esegesi aristotelica* (83-103)

Lucio Russo, *Il biennio 146-145 a.C.: uno spartiacque nella storia culturale del mondo mediterraneo?* (105-112)

Federica Benuzzi, *Cosa c'è di scientifico nella filologia di Eratostene? Contatti contenutistici e metodologici tra scienza e grammatikē nel trattato Sulla commedia antica* (113-128)

Notes

[1] Cf. the prologues of the commentaries to the *Categories* by Ammonius, Simplicius, Philoponus, and Elias.