
Writing Science: Medical and Mathematical Authorship in Ancient Greece
edited by Markus Asper with Anna-Maria Kanthak

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In April 2009, Markus Asper assembled leading scholars of ancient Greek mathematics and medicine to participate in New York University's Ranieri Colloquium on Ancient Studies. The conference, called 'Writing Science: Medical and Mathematical Authorship in Ancient Greece,' resulted in this volume, the first in De Gruyter's series *Science, Technology, and Medicine in Ancient Cultures*. The volume includes several of the conference's original participants and Asper, in collaboration with Anna-Maria Kanthak, has expanded its scope to include contributions by, for instance, Karine Chemla, Apostolos Doxiadis, and Michalis Silaros, who in their papers address ancient Chinese, Mesopotamian, and Egyptian scientific texts.

Writing Science is arguably the most innovative collection of essays on ancient science to come out in recent years. The authors promote a literary/aesthetic methodology to analyze a variety of ancient Greek medical and mathematical writings and they contextualize ancient scientific texts in relation to (other) ancient Greek literature. The papers examine authorial voice, narrative, genre, literary style, and the politics of reading circumstances. The anticipated audiences of the papers vary from scholars trained in the history and philosophy of science to classicists versed in Hesiod, Homer, and Thucydides.

Paul Keyser's and Markus Asper's contributions engage to the greatest degree with studies in the history and philosophy of science. Keyser's paper, the first in the volume, addresses the nature of science in general. He posits his own definition of science as the sum of collections of effective recipes and their explanations—or practices and theories, respectively—and he argues that the social contexts that produce scientific innovations are robust ecologies of debate which, with respect to the ancient Greek sciences, disregard traditional

authority, are open to innovation and dissent, accord a relatively high status to mercantile activity, and exhibit a low level of xenophobia [24]. Keyser tests his hypothesis of what conditions determine whether science flourishes or declines in any given social context by reference to the distribution in time of ancient scientists, distilled from Keyser's and Irby-Massie's own *Encyclopedia of Ancient Natural Scientists* [2008]. Keyser presents three case studies in the history of the ancient Greek sciences which he intends to demonstrate the progress of science: summing a series, the diagnosis and prognosis of wounds in the head, and the design of artillery.

While Keyser advances a transhistorical theory of progress, Asper examines narratives of progress in ancient Greek scientific texts. He analyzes three plot-structures: boundless accumulation, teleological completion, and circular return. Whichever plot structure a text realizes results from the author's fashioning of both his own identity as author and his position in relation to other contributors in the area of inquiry. Asper observes that different plot structures thrive in different fields. The conception of progress as a steady accumulation is predominant in ancient Greek mathematical texts, where authors present their work as part of a diachronic group-effort which, Asper boldly claims, renders ancient Greek mathematics 'normal science' in the Kuhnian sense [417]. The teleological plot and the story of return, on the other hand, frequently appear in medical writings, reflecting the high degree of competition among physicians.

In his contribution to the volume, Reviel Netz maintains that Greek mathematics 'is as competitive as any other Greek genre' [217]. Why, then, did the narrative of progress in mathematical texts differ from the narrative of medical texts? An analysis of why it is that the plot of accumulation, rather than of completion or return, was popular in mathematical texts would have contributed a more robust analysis of the culture and rhetoric of ancient Greek mathematics.

The vast majority of the volume's papers constitute authorship studies. Chemla eliminates the author from the Chinese classic *The Nine Chapters on Mathematical Procedures* and argues that the scriptural act that produced the text was not one of writing but rather of editing. Heinrich von Staden investigates the challenges of 'writing the animal' and the concomitant effects on authors' self-representation and rhetoric, as evidenced by Aristotle's, Pliny's, and Galen's zoological writings. Philip van der Eijk ex-

amines Galen's persona in *Mixtures*. Ineke Sluiter argues for the dominance and, moreover, violence of the commentator over a source text in Homeric scholia and, by extension, Galen's corpus. Reviel Netz emphasizes the textual character of Greek mathematical practice in contrast to the performative authorship of other ancient Greek literary genres. Serafina Cuomo argues that the authorship and audience of classical account inscriptions reflect political participation in the Athenian empire. Alan Bowen analyzes the techniques employed by Hellenistic authors of introductions to astronomy when establishing their authority. Brooke Holmes explains the 'structurally disembodied' character of the physician in Hippocratic texts.

Although an emphasis on authorship pervades the volume, the range of literary topics and types of scientific texts analyzed remains impressive. The collection includes nearly as many papers on ancient medicine as mathematics and the varieties of mathematics examined reflect the diversity of the ancient Greek mathematical tradition including geometry, numeracy, mechanics, and astronomy. If Asper and Kanthak meant to establish the legitimacy of the literary/aesthetic approach to ancient medical and mathematical texts as well as the fruitfulness of comparative studies in ancient science writing, then, with this cast of expert historians of ancient science, they have accomplished their goal.

BIBLIOGRAPHY

Keyser, P. and Irby-Massie, G. L. 2008. edd. *The Encyclopedia of Ancient Natural Scientists: The Greek Tradition and Its Many Heirs*. London/ New York.