more detailed than the religious groups; two parts of four chapters each would offer a more rational structure. A summary chapter, an appendix on Thaumasius, notes, bibliography, and index complete the volume.

Within each chapter or part of chapter, S.'s procedure is much the same, wherever this is possible. After an introductory page or two, S. seeks to show whether and how groups collected texts, edited, commented upon, altered, and employed them in their schools or gatherings. These discussions are thorough and valuable sources of information on attitudes to texts in the philosophical schools and religious groups chosen. Therein lies another point that may raise some concern. Any reader not primarily interested in a comparison of religious with philosophical practice in regard to texts may, while finding much of great value in the chapters of S.'s book, incline to the view that religious and philosophical groups would naturally tend, a priori, to approach texts in a similar way. Equally detailed studies of other types of groups might produce a picture that is quite different. For example, rhetoricians too studied the work of the past, not so much to learn ethics and belief systems, perhaps, but certainly as models to be emulated. While memory was the primary aid to these studies, texts undoubtedly played a rôle, and a chapter or two devoted to this and other types of schools, including those of the grammarians, mathematicians, astronomers, and, perhaps especially, jurists, among others, would add much to the larger picture. As the work of R. Cribiore shows, papyri provide valuable information for educational processes in Egypt and might offer scope for a wider treatment of texts in schools.

In his summary chapter, S. also addresses the relative authority of the teachers and the texts in the schools that he includes in his treatment. Here he offers 'a provisional taxonomy that describes the different patterns of authority that obtain between texts and teachers in different school groups' (p. 218). His scheme is tripartite: text as teacher, text and teacher together, teacher as text, in a continuum, not as precise categories (p. 224). Readily apparent from S.'s book is the fact that approaches to texts and to the uses of texts often reflect the individuality of the participants, teachers especially, but students as well, even within the confines of a single tradition. The tripartite scheme thus reflects reality better than an approach that emphasizes either the text or the teacher in discussions of school traditions. This conclusion and the wealth of detail on the uses of text in some ancient schools and religious groups represent the most valuable contributions of the volume. Readers can only hope that S. chooses to address issues of text and teacher in other traditions in the future, to generate a more complete picture of practice in the ancient world as a whole.

University of Calgary JOHN VANDERSPOEL

LATE ANTIQUE MATHEMATICAL PHILOSOPHY

G. Bechtle, D. J. O'Meara (edd.): *La philosophie des mathématiques de l'Antiquité tardive. Actes de colloque international Fribourg, Suisse (24–26 sept. 1998)*. Pp. viii + 242. Fribourg: Editions Universitaires Fribourg Suisse, 2000. Paper, Sw. frs. 39. ISBN: 2-8271-0871-2.

This is a most useful collection of papers on the topic of late antique mathematical theory, by an impressive collection of experts. There are ten contributions (itself a good Pythagorean number), three devoted to Iamblichus, and in particular to the *De Communi Mathematica Scientia*; one on Syrianus; three on Proclus (two based on the

© Oxford University Press, 2002

https://doi.org/10.1093/cr/52.2.290 Published online by Cambridge University Press

Commentary on Euclid, one on the *Commentary on the Timaeus*); one on John Philoponus (his *Commentary on Nicomachus' Introductio Arithmetica*); one on the Renaissance reception of Proclus' *Euclid Commentary*; and a final one comparing Proclus' theory of mathematics with modern theories.

It is plain—and has become that much plainer in the wake of O'Meara's masterly study, *Pythagoras Revived* (Oxford, 1989)—that mathematics for Iamblichus, and consequently for Syrianus and Proclus after him, held a central position both ontologically, in the construction of the universe, and epistemologically, in its cognition by us. A central (surviving) text in this connection is the *DCMS*, and it is on aspects of that work that the first three contributions are focused. First of all, Francesco Romano, ('La rôle de la mathématique dans le projet d'unification des sciences chez Jamblique'), presents an overall view of Iamblichus' theory of the central role of mathematics, and in particular arithmetic, as the unifying principle of all the other sciences. Gerald Bechtle (from whom we may expect before long a translation and commentary on the whole work) concentrates on the relation of mathematics to theology and to dialectic, and Iamblichus' attribution to it of the 'dialectical' procedures of division, synthesis, and definition. Thirdly, Linda Napolitano devotes a study ('Giamblico e la linea divisa') to Chapter 8 of the work, in which Iamblichus presents an exposition of Plato's Divided Line—though characteristically attributing it to the Pythagoreans, with the help of pseudepigrapha of Brotinus and Archytas—in order to define the mode of cognition of mathematical objects as *dianoia*, or discursive reason, the subject of the second segment of the Line.

Next, Ian Mueller, in 'Syrianus and the Concept of Mathematical Number', shows very well, from a study of Syrianus' *Commentary on Aristotle's Metaphysics* (and in particular on various of Aristotle's criticisms of the Platonists in Book M), how much of Proclus' theory of the status of mathematical objects he owes to Syrianus. It is to just this theory of Proclus, in the two prologues to his *Commentary on Euclid*, that the paper of John Cleary ('Proclus' Philosophy of Mathematics') is devoted. This presents a clear and valuable exposition of Proclus' views on the status of mathematicals and geometricals, setting out starkly the confrontation with the Aristotelian 'abstractionist' view of mathematical objects.

Two following papers (Markus Schmitz, 'Euclids Parallelenlehre als einzig wahre Geometric der Ebene vor dem Hintergrund der Mathematikphilosophie des Proklos', and Alain Lernould, 'Mathématiques et physique chez Proclus: l'interpretation proclienne de la notion de "lien" en *Timée* 31b–32c') develop further various aspects of Proclian theory. Schmitz, armed with an admirable command of modern mathematical theory, essays a defence of Euclid's theory of parallel lines, with the help of Proclus' exposition of it. Lernould serves to complement Cleary's general exposition by concentrating rather on Proclus' *Timaeus Commentary*, where his discussion of the 'bond' (*desmos*), or proportional means (namely, air and water), between the two extremes of earth and fire is to be found. Lernould shows, interestingly, how Proclus is concerned not to confine the necessity for a double mean to entities in the physical world, but to assert its validity on the higher, intelligible level.

Moving on to the Alexandrian School, Giovanna Giardina ('Il concetto di numero nell' *In Nicomachum* di Giovanni Filopono') shows that John Philoponus is, as one would expect, very much in accord with the Platonic–Pythagorean doctrine of the status of mathematics and its objects stemming ultimately from Iamblichus—though making rather more use than his predecessors of the concept of the *enulon eidos*, or 'enmattered form', to characterize the status of mathematical entities in the physical world.

https://doi.org/10.1093/cr/52.2.290 Published online by Cambridge University Press

The collection ends with two papers relating in various ways to the *Nachleben* of Proclus' mathematical theory in particular. Mario Otto Helbing ('La fortune des Commentaires de Proclus sur le premier livre des *Élements* d'Euclide à l'époque de Galilée') gives an enlightening account of the influence of Proclus' commentary in the Renaissance, in the aftermath of its first edition in 1533, followed by its translation into Latin by Baroccius in 1560; and Giovanni Sommaruga ('The Nature of Mathematical Objects in Proclus and in Contemporary Philosophy of Mathematics') provides a rather less successful, but still interesting, attempt to relate Proclus' position to various modern theories, including those of Quine and Benacerraf, but mainly that of a lady mathematician unfamilar to me, Patricia Maddy.

There is inevitably a certain amount of overlapping between the papers collected here, but overall they constitute a most valuable exploration of the Neoplatonic doctrine of the rôle of mathematics in philosophy and the status of its objects.

Trinity College, Dublin JOHN DILLON

VIRGIL AND THE CONSPIRACY THEORISTS

R. F. Thomas: *Virgil and the Augustan Reception.* Pp. xx + 324. Cambridge: Cambridge University Press, 2001. Cased, £40. ISBN: 0-521-78288-0.

Hot on the heels of Richard Thomas's *Reading Virgil and his Texts* (Ann Arbor, 1999), collecting two decades of his important papers (reviewed by Andrew Zissos in *CR* 51 [2000], 251–3), comes this second volume from one of the liveliest and most forceful of modern Virgilian scholars. The overall argument of the book is that the optimistic and positive 'Augustan reception' of Virgil (hereafter V.) is as much a cultural construction as the pessimistic and ambivalent reception associated with the so-called 'Harvard school', of which T. himself is a noted exponent, and also that it is an unpersuasive view. The case is made with T.'s typical zest, learning, and pugnacity, which make the book a particular pleasure to engage with, even (or especially) for those who, like me, do not wholly agree with his views. This major contribution will certainly put new fire into an old debate.

In his 'Prologue' T. lays out his eclectic methodology: 'philology, broadly defined, so as to include, for instance, narratology, reception theory, some deconstruction, and an occasional dose of New Historicism' (p. xv). This is laudable both for its transparency and its inclusivity, but it is interesting to see the omission of New Criticism, for it is by a New Critical appeal to the close interpretation of V.'s texts and their ironies and ambivalences that T. often seeks to justify his views. And though T. departs from New Criticism in laying some claim to historicism, it is perhaps through the overall cultural context of the Augustan period (Zanker, Galinsky) that his thesis can be most effectively challenged. Furthermore, the 'Augustan reception' that he attacks often seems too monolithic and undifferentiated; many, like myself, feel able to separate out, for example, the *Aeneid*'s rhetorically effective contributions to Augustan propaganda from its clearly tragic/realistic view of the price of Aeneas' political achievement. There can, I think, be a spectrum within 'Augustanism', while for T. once any ambiguity is admitted the 'Augustan' interpretation falls.

An introductory section lays out 'The Critical Landscape', and includes a typical textual argument. At 6.791–2 Augustus is associated by the speaker Anchises with the Golden Age: *aurea condet/saecula.* T. does not here use his argument (often effective

© Oxford University Press, 2002

https://doi.org/10.1093/cr/52.2.290 Published online by Cambridge University Press