Review: Philolaus

Reviewed Work(s): Philolaus of Croton: Pythagorean and Presocratic by Carl A. Huffman

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PHILOLAUS

CARL A. HUFFMAN: *Philolaus of Croton*: Pythagorean and Presocratic. A Commentary on the Fragments and Testimonia with Interpretive Essays. Pp. xix + 444. Cambridge: Cambridge University Press, 1993. £60/$100.

This large book is devoted to a subject badly needing treatment. The last full-scale work on Philolaus – a major pre-Platonic Pythagorean, and the first about whom we have anything approaching detailed information – was published by Boeckh in 1819. H. offers an introduction which discusses first the historical background to Philolaus' life and writings, and then the question of the authenticity of those teachings attributed to him in later tradition. This is followed (Part II) by three chapters introducing us to what H. considers important aspects of his 'philosophy': chapters that somewhat uncomfortably presuppose the textual analyses provided later in the book. Part III presents the 'Genuine Fragments and Testimonia': original Greek or Latin text followed by English translation, discussion of authenticity, and detailed analysis. Part IV presents the material considered 'spurious or doubtful' in a similar, but curtailed, format.

The author is to be commended on his courage in undertaking such a project. His enthusiasm for his subject repeatedly shows through; but at the end of the day one is bound to ask whether this opportunity to throw new light on Philolaus' teaching has been well used.

The first problem is one of organisation. To have grouped *all* the evidence relating to Philolaus, together with a translation, at the start of the book would have represented a genuine contribution to scholarship – especially for those unable to cope with the Greek. Instead, we are forced to search for the texts through the pages of discussion in which they have been buried. But far more problematic is the nature of those discussions. H.'s lack of familiarity with the history of scholarship on his subject is sometimes embarrassing – as in his statement (p. 395) that Mullach, who published his edition of Philolaus in 1867,'accepted' an emendation by Wilamowitz. Even more significant, however, is his persistent failure to come to grips with Philolaus' own interests and concerns.

Of crucial importance in this regard is the issue of Philolaus' views on number. H. sets the tone for his overall discussion by admitting that Philolaus evidently associated certain numbers with abstract concepts, such as justice or opportunity, and then going on to say that 'these are certainly the least appealing manifestations of Philolaus' thesis about number from our point of view' (p. 76). In addition to sweeping such unappealing evidence to the sidelines – as in the case of the testimony, no doubt genuine (pp. 270–6), that creatures on the moon are fifteen times stronger than creatures on earth because their days are fifteen times longer – H. does not stop short of disposing of it altogether. The famous saying (Stobaeus, *Ecl.* 1.21.8) that 'the first thing fitted together, the one in the middle of the sphere, is called "hearth"' plainly confirms Aristotle's claim that Pythagoreans gave the arithmetical unit an existence in space and, in so doing, equated the creation of number with the creation of the cosmos.[1] For H., however, it is inconceivable that Philolaus could have been

[1] Cf. also Anatolius, *De decade*, p. 6 Heiberg = ps.-Iamblichus, *Theol. arithm.* p. 6 de Falco for equation of the Pythagorean 'hearth' with the arithmetical unit, or 'monad'.

so 'bemused by number speculation' as to make the 'puerile' error of confusing arithmetic with cosmology (pp. 202, 205). To preserve P.'s standing as a respectable philosopher he denies any reference at all here to numbers or units, illegitimately appeals to Presocratic use of 'the one' as a term for *all* existence, and interprets the text as meaning that when Philolaus calls the hearth at the centre of the universe 'the one, he is saying that it is the paradigm case of something that truly exists...' (p. 209). This is sheer mumbo jumbo: the price to be paid for condemning, rather than trying to understand, a tradition of interpreting cosmogony in terms of number symbolism which survived not only in later Pythagoreanism but also in Gnosticism, Cabbala and the mystical speculations of Islam.

One of the central purposes of this book is inevitably to distinguish between statements that go back to Philolaus himself and statements attributed to him by later forgers. It is precisely here that the greatest weaknesses in H.'s approach are revealed. The thorniest problem he has to face is the question of the relationship between Philolaic texts and early Platonists. For him the problem is as a rule very simply resolved: if a Philolaic fragment shows any resemblance to writings of Plato – and, in particular, the *Timaeus* – it can be dismissed as a post-Platonic forgery. What he fails to take into account is the undoubted influence of Italian Pythagoreanism on Plato, and particularly on the *Timaeus* (cf. e.g. T. L. Heath, *Euclid's Elements*[2] [1926], ii. 98–9; G. E. R. Lloyd, *Phronesis* 35 [1990], 169 n. 18; and H. himself, pp. 149–51). H. claims to be 'startled' (p. 21) by Aristotle's assertion in *Metaph.* 987a29–31 that 'in most respects' Plato followed the Pythagoreans; he would not have been so surprised if he paid more attention to the complexities of the evidence.

The blurb for the book presents it as 'including the spurious fragments in a separate section for reference'. This is unfair. H. repeatedly admits that distinguishing between the genuine and the spurious is a knife's-edge decision, and it is clear that he often brings the knife down in the wrong place. For instance, in fragments A17b and B12 (Diels–Kranz; H., pp. 392–5, 400–1) he ignores the repeated use of shipping imagery. Why? Because in A17b the expression τὸ ἡγεμονικόν is 'clearly Stoic' (but so are many expressions in Aëtius used to reformulate genuine Presocratic ideas); and because the idea of a demiurge is 'clearly Platonic' (what then of Parmenides, or Empedocles?). As for the comparison of the central fire to a keel, H. dismisses it as 'introduced by a commentator' under the influence of 'later philosophical conceptions'; and yet it is a question here of visual imagery, not 'philosophical conceptions'. With B12 he accepts its apparent allusion to five elements as proof of a post-Aristotelian forgery (but why then does the fragment so pointedly *not* equate the fifth body with *aither*?), replaces the word describing the sphere of fixed stars as a 'tow-boat' or 'barge' (ὁλκάς) with a linguistically implausible emendation intended to give the fragment an acceptable Aristotelian sense – and rejects it as a post-Aristotelian forgery. Wilamowitz dismissed the comparison of the outer sphere of the universe to a tow-boat as 'incomprehensible' because it presupposes something else that tows or moves it; but this is not incomprehensible at all. We happen to have it on good authority that whereas Aristotle located the power which moves the cosmos at the periphery of the universe, Pythagoreans before him located it at the very centre of the cosmos (ἐν τῶι μέσωι).[2] Images of this kind should be the starting-point for any discussion of Philolaus – not an embarrassment to be disposed of.

[2] Simplicius, *Phys.* 1354. 2–3, 1355. 3–11 Diels; for the pedigree of the passage see Burkert, *Lore and Science in Ancient Pythagoreanism* (1972), 340 n. 15. Cf. also Parmenides A37, B12.3 (ἐν μέσωι... πάντα κυβερνᾶι).

Then there is the extraordinary evidence indicating that Philolaus 'dedicated' different geometrical angles to different gods: evidence already seen by Tannery to have a bearing on astrological doctrine and, consequently, to provide a precious testimony to the penetration of astrological lore into the Greek-speaking world by the fifth century B.C. (see now K. von Fritz, *RE* Suppl. xiii. 466–7; Burkert, *Lore and Science*, 349–50). H. opens his discussion (pp. 385–91) by claiming that it is 'natural' for 'the scholar' to want to sweep this remarkable evidence under the carpet. He proceeds to do precisely that, denying that the evidence goes back to Philolaus, denying that it has anything to do with astrology, and claiming that it simply derives from commentaries on the *Timaeus*. In so doing he summarily disposes of the meticulous work of Franz Boll and others. But the worst is still to come: astrological ideas of this type cannot go back to Philolaus because 'the most authoritative work on ancient astrology dates its development in Greece only in the third century B.C.' (p. 388). In fact, as H. himself admits (ibid.), Babylonian astrology can be seen to have exerted 'the most general of influences' on the Greeks by the fifth century B.C. Philolaus' well-attested knowledge of the five planets is something for which he was clearly indebted to Babylonia (Burkert, op. cit., 300–1, 310, 313); and contrary to the impression – so misleadingly created by Otto Neugebauer – that there was ever such a thing as Babylonian astronomy independent of astrology, it is entirely artificial to suppose Greeks could have received Babylonian 'astronomical' knowledge without being touched by 'astrology' in the process. Strong evidence exists that the zodiac of twelve equal signs was both known and used elsewhere in the Greek world by the time of Philolaus.[3] And the astrological nature of the description of 'fears and portents' caused by the conjunctions, oppositions, retrogradations and occultations of the planets in Plato's *Timaeus* 40c–d is crystal clear (H.'s denial that this passage has any 'real tie to astrology', p. 389, is incredible). Where the Babylonian evidence is concerned, the earliest definite testimony to division of the ecliptic into twelve equal signs of thirty degrees each no longer dates from 410 B.C., but from the first part of the fifth century.[4] And, most important of all for our purpose, the idea of the astrological angle which used to be considered a uniquely Greek contribution to the development of astrology in the West (e.g. Burkert, op. cit., 350) is now known not to have been a Greek invention at all but, in essence, a native Babylonian development.[5] That Pythagoreanism was, well before the time of Philolaus, heavily indebted to Babylonian lore is beyond any doubt (A. Aaboe, *Episodes from the Early History of Mathematics* [1964], 39; Burkert 429, 433, 441–2, 454). By ignoring this background to Philolaus' own ideas – along with other evidence for his real interests and concerns – H. presents a picture of him ultimately as false as any Philolaic forgery in antiquity.

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[3] A. C. Bowen and B. R. Goldstein in *A Scientific Humanist: Studies in Memory of Abraham Sachs*, edd. E. Leichty *et al.* (1988), 39–81, esp. 53 with n. 74–5.

[4] A. Aaboe and A. Sachs, *Centaurus* 14 (1969), 1–22.

[5] F. Rochberg-Halton, *JNES* 43 (1984), 118–29, *JAOS* 108 (1988), 60–1, and esp. *Zeitschrift für Assyriologie* 77 (1987), 207–28. Rochberg-Halton seems unaware that her conclusions were already anticipated by Franz Boll, *Zeitschr. f. Assyr.* 28 (1914), 346 n. 1 and in his *Aus der Offenbarung Johannis* (1914), 40 and n. 1. See also P. Tannery, *Mémoires scientifiques* vii (1925; originally published 1889), 133; A. Schott and J. Schaumberger, *Zeitschr. f. Assyr.* 47 (1942), 109 and n. 1.