south coast of Aenaea without any allusion to Dicaea, which implies that this Eretrian colony was settled somewhere between Therme and Aenaea.<sup>30</sup> It was probably not far from the latter, because in 454/3 Dicaea paid four talents to the League although it generally paid only one: the other three are in fact the regular contribution of Aenaea, and so these four talents may have been the single payment of both Dicaea and Aenaea. If so, that implies their proximity.<sup>31</sup>

Dicaea must therefore be located in exactly the same region as Pisistratus' settlement and, if it is right to suppose that Eretria actively participated in this foundation, it hardly seems likely that the new city on the Thermaic Gulf was settled just beside an earlier Eretrian colony, and consequently entered into direct rivalry with it. On the contrary, both their proximity and the origin of their colonists imply the identification of Dicaea with Pisistratus' settlement.

To conclude, this identification shows not only that, as Cole says, Pisistratus' activity on the Gulf of Therme 'would have been a deliberate preplanned enterprise rather than an accidental landing', but also that Pisistratus was only a participant in an expedition organized by Eretria, the real mother city of Dicaea. How many Athenians joined with him in this settlement is impossible to determine, but the great majority of the colonists were without doubt Eretrian (cf. 'Ερετριῶν ἄποικοι). As far as Pisistratus is concerned, immediately on his arrival at Eretria, his principal objective was to restore his authority at Athens, 32 and to this end he knew that he had to acquire his own financial means. He consequently collected funds which made possible his expedition in Thrace and the working of the mines of Mt. Pangaeus. On the road to this region Dicaea was an ideal stage, which explains Pisistratus' participation in this Eretrian enterprise. This identification of Pisistratus' settlement on the Thermaic Gulf with Dicaea also throws a light on the disputed chronology of Eretrian colonization.<sup>33</sup> According to S. C. Bakhuizen,<sup>34</sup> 'there is no evidence to hold that these colonies [Mende and Dicaea] were founded in the eighth century'; and M. Zahrnt<sup>35</sup> affirmed: 'von der landschaftlichen Gegebenheiten her müssen wir Dikaia und Mende als Ackerbaustädte ansehen; die Anlage solcher Kolonien erfolgte aber erst in der zweiten Phase der griechischen Kolonisationszeit'. We can now propose a precise date for the foundation of Dicaea between 555 and 546/5;<sup>36</sup> that would fit well with the tendency to lower the chronology of the Eretrian colonization in Chalcidice.

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<sup>30</sup> Cf. ATL i 483.

<sup>31</sup> Cf. ATL i 176.

<sup>32</sup> Hdt. i. 61.

 $^{33}$  Cf. A. J. Graham, The colonial expansion of Greece, CAH  $^2$  iii 3 (1982) 115.

<sup>34</sup> S. C. Bakhuizen, *Chalcis-in-Euboea*, iron and Chalcidians abroad (Leiden 1976) 24.

<sup>35</sup> M. Zahrnt, Olynth und die Chalkidier (München 1971) 30 n. 73.
<sup>36</sup> I hope to discuss elsewhere the chronology of Pisistratus' tyrannies and exiles.

## Aristotle, Metaphysics 1019a4

The broad context is a discussion of priority and posteriority, which runs from 1018b9-1019a14 (compare Categories 14a26-b24). A type of priority is described at 1019a2-4, and then further discussed at 1019a4-14. It is described as follows: 'All those things are said to be prior in respect of nature and being, which can exist without other things, while those other things cannot exist without them.' My concern in this note is with the parenthesis which immediately follows: 'This is a distinction which Plato employed.'

All the commentators despair of locating this reference to Plato. Some, like Tredennick, (*ad loc.* in his Loeb edition), simply despair; others, like Ross (*ad loc.* in his edition), speak of 'an oral utterance', and are accordingly tempted towards finding yet another reference to the Unwritten Doctrines, either in the vague sense that anything not in the dialogues is by definition 'unwritten', or more specifically in the sense of some aspect of the doctrine of ideal numbers (e.g. Trendelenburg, cited by Ross).

As a matter of fact, this is yet another case where reference to the Unwritten Doctrines is unnecessary. At *Republic* 522c, Plato points out that all  $\tau \xi \chi v \alpha_1 \tau \epsilon \kappa \alpha_1$ διάνοιαι και ἐπιστῆμαι use calculation and arithmetic. This is repeated at *Philebus* 55d-e, where the arithmetical sciences are called ἡγεμονικάς (πρώτας at 56c) relative to other skills and branches of knowledge, because without arithmetic those other branches of knowledge would be nothing—mere guesswork. In so far as they do in fact use mathematics, albeit on material objects, they are called 'the mathematics of the masses', whereas arithmetic in itself—i.e. pure mathematics, whose objects are immaterial—is called 'the mathematics of philosophers' (56d–57a). See further my Penguin *Philebus* 27–31.

What was not perfectly clear in *Republic* becomes clear in *Philebus*. Plato is not just distinguishing arithmetic from the branches of knowledge which use it, but is also assigning priority to arithmetic on that basis. It exists as a pure science in its own right, whether or not its practical applications exist; they, on the other hand, could not exist without it—each would be mere guesswork, not a science at all.

So here is the distinction of priority and posteriority which Aristotle attributes to Plato. It is worth noting, as corroboration, that not only Aristotle, but also the Neoplatonists seem to have understood and followed Plato on this point. The outstanding passages are Nicomachus of Gerasa, Introduction to Arithmetic ix 5-18 (Hoche) and ps.-Iamblichus, Theologumena Arithmeticae xxi 13-17 (de Falco). Ps.-Iamblichus is echoing just one of Nicomachus' reasons for assigning priority to arithmetic over the other sciences of the quadrivium when he writes: 'The association of arithmetic with the monad is reasonable: for when arithmetic is abolished, so are the other branches of knowledge, and they are generated when it is generated, but not vice versa, with the result that it is more primal than them and is their mother, just as the monad turns out to be as regards the numbers which follow it.'

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