

Empedocles' Fertile Fish (B74)

In a recent article in the *Journal of Hellenic Studies*¹ Dr O'Brien rejects a suggestion I made some time ago in an attempt to explain the apparent contradiction in our evidence for Empedocles' distribution of living-creatures among the elements. Whereas Aëtius tells us that this distribution took place on the principle of 'like to like',² Aristotle informs us³ that Empedocles held that certain aquatic creatures are very fiery and take to the water to cool themselves. It was suggested then⁴ that these aquatic creatures mark an exception to the general rule of 'like to like' and took to the water to cool themselves, because they have an excessive endowment of the element fire and, therefore, require a rather more powerful cooling-system; in their case, the inspiration of air is inadequate to cool their internal heat.⁵

Although O'Brien is willing to accept that it is 'very possible' that Empedocles subscribed to the doctrine of innate heat,⁶ he nevertheless does not find this suggestion persuasive. It is not my intention directly to defend my standpoint here. Let it suffice for me to stress again that there *are* exceptions to the general rule of 'like to like' and that Empedocles himself points them out, namely that in the case of such creatures as shellfish and turtles, which manifestly do exist at our present stage of the world's evolution (i.e. when Strife is gaining predominance), it is the *earthy* part which is uppermost.⁷

For O'Brien, the contradiction itself is significant. He finds in these conflicting testimonies evidence for *two* zoogonical sequences and, thus, important support for his reconstruction of a cosmic cycle for Empedocles. He holds that in Love's world animals are stationed among the elements according to the attraction of opposites, and in Strife's world according to the principle of 'like to like'.⁸ In *de Respiratione* 477a 32 ff. Aristotle gives no hint that he is not

speaking about the present world. However, following Guthrie,⁹ O'Brien believes¹⁰ that this is made clear by a passage in Theophrastus' *de Causis Plantarum*. In an account which parallels Aristotle's remarks in the *de Respiratione*, Theophrastus describes how, according to Empedocles, certain living creatures changed their habitat; after having been born on land, they took to the water (*de Caus. Pl. I, 22, 2*):

οὐ γὰρ οὔτε γενῶν οὔτε εἰς τρέφειν οὔτε σφίξειν πέφυκε τὸ ἐναντίον, ἀλλὰ τὸ ὅμοιον, ἐπεὶ καὶ Ἐμπεδοκλεῖ πρὸς τοῖς ἄλλοις καὶ τοῦτ' ἀποπον, ὅπερ καὶ ἐν ἑτέροις εἴρηται, τὸ γεννήσασαν ἐν τῷ ξηρῷ τὴν φύσιν μεταίρειν εἰς τὸ ὑγρόν.

Furthermore, both Guthrie and O'Brien see in a line of Empedocles quoted by Plutarch a description of this transition of fish from dry land to sea (*Quaest. conv. 685F. DK31B74*):

φῦλον ἄμουσον ἄγρουσα πολυσπερέων καμασίηων.

The female subject of ἄγρουσα here is most probably Aphrodite and O'Brien sees in γεννήσασαν in the Theophrastus passage a reference to Love's zoogonical activity at the time of her increasing power.

Theophrastus continues (*I, 22, 2-3*):

πῶς γὰρ ἂν διέμενον ἢ πῶς οἶόν τε καὶ διαμέμενον ὄντιναοῦν χρόνον, εἴπερ ἦν ὅμοια τοῖς νῦν; ἔτι δ' αὐτὸ τὸ συμβαῖνον κατὰ τὴν νῦν γέννησιν ἀποσημαίνει. Ἄπαντα γὰρ φαίνεται τὰ ζῶα καὶ τὰ φυτὰ καὶ διαμέμοντα καὶ γεννώμενα ἐν τοῖς οικείοις τόποις ὁμοίως ἐνδρα καὶ χερσαῖα καὶ εἰ τις ἄλλη τοιαύτη διαφορά.

O'Brien maintains that the query whether Empedocles' fish were 'like those now' (*ὅμοια τοῖς νῦν*) and the assertion that what happens in the present world (*sic: κατὰ τὴν νῦν γέννησιν*) discredits Empedocles' theory, again imply that the fish in question belonged to a world other than the present world. Similarly, Guthrie holds that the reference is to another epoch, not the present one. But this assumption that Theophrastus' comment refers to a different *epoch*, i.e. a different stage in the cosmic cycle, rather than to an earlier *time* than the present, and, hence, supports their reconstruction of a cosmic cycle for Empedocles is dangerously close to a *petitio principii*.¹¹ Furthermore, the attempt made by Guthrie and O'Brien to use the Plutarch quotation as important evidence for a double zoogony is totally unacceptable. There is absolutely no suggestion at all of Love's 'leading' or 'conducting' the fish *to* the water, as

⁹ *A History of Greek Philosophy* (Cambridge, 1965), Vol. II, p. 206 n. 2.

¹⁰ *Empedocles' Cosmic Cycle* (Cambridge, 1969) p. 191.

¹¹ It is noteworthy that O'Brien has to acknowledge that *ὅμοια τοῖς νῦν* and *κατὰ τὴν νῦν γέννησιν* 'could possibly mean simply a period earlier in the formation of the present world'.

¹ 'Empedocles' Theories of Seeing and Breathing', *JHS* XL, 1970, p. 167 n. 129, *cf.*, too, *Empedocles' Cosmic Cycle* (Cambridge, 1969) p. 190 n. 4.

² Aëtius V, 19, 5 (DK31A72). Aëtius' report may be accepted since it is closely paralleled by Empedocles' theory of the growth of plants, *cf.* Aristotle *de Anima* 415b 28 ff. and Theophrastus *de Caus. Pl. I, 12, 5* (DK31A70).

³ *de Respiratione* 477a 32 ff. and *de Part. Anim.* 648a 25 ff. *Cf.*, too, Theophrastus, *de Caus. Pl. I, 21, 5* (DK31A73).

⁴ 'Empedocles's Fiery Fish', *Journal of the Warburg and Courtauld Institutes*, XXVIII (1965), 314-15.

⁵ It is, perhaps, worth adding here that Empedocles' contemporaries, Anaxagoras and Diogenes, both put forward theories about the respiratory system of fish (*cf.* Arist. *de Resp.* 470b 30 ff. (DK59A115 and 64A31)).

⁶ *JHS* XL (1970) p. 167 n. 131.

⁷ Plutarch, *Quaest. Conv. I, 2, 5* p. 618B (DK31B76).

⁸ *JHS* XL (1970) p. 167 n. 129.

both these scholars maintain.¹² The context is manifestly quite different and, if we are correct in assuming that Aphrodite is the subject, the emphatic word then seems to be the adjective *πολυσπερέων*.¹³ The fish reveal by their fertility the activity of Love among them. The import of this quotation is correctly given by Philinus as:

αὐτῶν δὲ ζῳίων οὐδὲν ἄν χειρσαῖον ἢ πτηρὸν εἰπεῖν
ἔχοις οὕτω γόνιμον ὡς πάντα τὰ θαλάττια.

(*Quaest. conv.* 685F.)

Empedocles, in fine, is here simply seeking to illustrate Love's activity by an appeal which subsequently becomes a poetical cliché with our own Elizabethan poets.¹⁴

JAMES LONGRIGG

University of Newcastle upon Tyne

¹² There is no preposition; nor should it be assumed that *ἄγουσα* must bear the meaning of 'leading' or 'conducting' to a place as has been generally supposed. This verb frequently carries the meaning of 'carry off as captive or booty', cf., for example, *Iliad* I 367, IX 594, and Sophocles, *Philoctetes* 945. There is an interesting parallel in Sophocles' famous choral ode upon human inventiveness in the *Antigone*, where Man is invoked in his capacity as a hunter, *Ant.* 341 ff.:

κουφοτόων τε φύλον ὀρνέθων ἀμφιβαλῶν ἄγει
καὶ θηρῶν ἀγρίων ἔθνη πόντου τ' εἰναλίαν φύσιν
σπείρασι δικτυοκλώστοις,
περιφραδῆς ἀνήρ.

It is noteworthy, too, that this verb is also used in a metaphorical sense to describe the activity of *ἐπιθυμία*, cf. Aristotle *E.N.* 1147a34.

¹³ It might be objected that Empedocles in B74 could be using *πολυσπερέων* as a purely ornamental epithet. But in view of the fact that he has deliberately given a different sense to an adjective borrowed from Homer (cf. *Iliad* 2.804 and *Odyssey* 11.365), this seems most unlikely.

¹⁴ Cf., for example, Milton in *Comus*, who describes fish as:

'Thronging the Seas with Spawn innumerable'
and Spenser in *Garden of Adonis*:

And all the fruitful spawn of fishes' hew
In endless ranks along enranged were,
That seem'd the ocean could not contain them
there.'

Note on the Chronology of the reign of Arkesilas III

Professor I. Noshy, in a paper read to the 1968 conference of the Faculty of Arts of the University of Libya and published in its proceedings,¹ has

¹ 'Arkesilas III', *Libya in History*, pp. 53-78.

re-formulated Chamoux's view of the chronology of the reign of Arkesilas III,² to which I proposed an alternative in *JHS* lxxxvi (1966) 99-103. Noshy upholds Chamoux's view that Arkesilas' appeal to Samos (Hdt. iv 162-3) was made to Polykrates before 525 (when he medized during Cambyses' Egyptian expedition (Hdt. iii 13 and iv 165), after which, according to Noshy (p. 73) he could only have appealed to his Persian patrons). He attempts to reduce the awkwardly long interval between these events and Arkesilas' murder by updating Aryandes' Libyan expedition, which followed the murder, to 519. Like Chamoux, he connects Aryandes' rebellion against Darius and his execution with the visit of Darius to Egypt, recorded by Polyainos (vii 11) and fixed to 518 by the date of the death of the Apis bull which Darius mourned.³ In Noshy's view, Aryandes' Libyan expedition was not authorised by Darius, whose impending visit caused him to recall it before the wider purpose of subduing the Libyan tribes was accomplished (pp. 64-5). He suggests further, that, contrary to the testimony of Herodotus (iv 164.4-5.1), Arkesilas' sojourn at Barka, which he places between 525 and 519, was by his own choice, with the object of subduing aristocratic revolt in western Cyrenaica, and that he never had to take refuge there, but was able to return to Cyrene between expeditions, only handing over the government to Pheretima while he was away on campaigns (p. 69). During this period, Noshy supposes that he founded Euhesperides to serve as an outpost in western Cyrenaica (pp. 70-1).

The events of Arkesilas' reign recorded in Hdt. iv 162-5 are admittedly difficult to date. The only certain points are his medism in 525 and the expedition sent by Aryandes to avenge his murder. The latter, despite Noshy's arguments (pp. 60-6), can hardly be dissociated from the year of Megabazus' operations in the Hellespont to suppress the rebellion which broke out there after Darius' Scythian expedition (Hdt. iv 145.1).⁴ He was left there by

² *Cyrène sous la Monarchie des Battiades*, c. 6.

³ Posener, *La Première Domination Perse en Égypte*, no. 5 (pp. 36 ff.).

⁴ Cf. George C. Cameron, *JNES* ii (1943) 307-14, 'Darius, Egypt, and the "Lands beyond the sea"'. Cameron's argument, based on the lists of Persian subject-peoples (see Roland Kent, *ib.* pp. 302-6) is supplementary to Herodotus and accepts the synchronism. Noshy (pp. 55-6) objects that Kushiya (northern Ethiopia) is absent from the Behistun and Persepolis lists but present on the Egyptian canal stelae as well as Putaya (Libya) and denies that any conclusion can be drawn that Libya submitted c. 513 (the date of both lists), before the result of the Libyan expedition was known at Persepolis (where the Thracians (Skudra) who submitted after the Scythian expedition are recorded, though they are absent from the canal list). His own explanation, that both Kushiya and Putaya were part of the