

NOTES ON ARATUS, *PHAENOMENA*

1–2 ἐκ Διὸς ἀρχώμεσθα, τὸν οὐδέποτε ἄνδρες ἔωμεν
ἄρρητον·

It is characteristic of A. to use words that occur only once in Homer, and such a word is ἄρρητος. In *Od.* 14. 466 it describes the remark that is better left unspoken, ὃ πέρ τ' ἄρρητον ἄμεινον. But it has the distinction of occurring once also in Hesiod, and this time it is used of men without fame, ῥητοί τ' ἄρρητοί τε Διὸς μέγαλοιο ἔκατι (*Op.* 4). It is clearly this line in Hesiod's proem that A. is echoing in his own, and in the same kind of sense, though, as Martin points out, A. 'renverse en quelque sorte une expression d'Hésiode'.¹ In the *Phaenomena* it is Zeus who is always being celebrated by men.

The idiom with ἔαν and negative is used by Plato, *Lg.* 793b, οὔτε νόμους δεῖ προσαγορεύειν αὐτὰ οὔτε ἄρρητα ἔαν, and it may have been a familiar expression. But here in A., with the emphatic οὐδέποτε, it does seem rather contrived, and this may account for the fanciful explanation in the scholia that Zeus here represents the air we use every time we speak.² The phrasing is certainly designed to give the maximum emphasis to ἄρρητον, which comes in enjambement at the beginning of the second line and is then followed by a strong sense pause. It is tempting, therefore, to suggest that the poet is indulging in a kind of pun on the sound of his own name, which usually has a long α in its first syllable and sometimes η in its second: e.g. Call. *Epigr.* 27. 4 Ἀρήτου σύντονος ἀγρυπνίη, and Leonidas, *A.P.* 9. 25. 1 γράμμα τόδ' Ἀρήτοιο δαήμονος.³ Other Hellenistic poets have contrived puns on the derivation of their names: Philodemus in *A.P.* 5. 115, Meleager in *A.P.* 12. 165, and Crates in *A.P.* 11. 218. 4. Closer to A. is the story recorded in the ancient biographical tradition of Antigonos complimenting the poet with the pun εὐδοξότερον ποιεῖς τὸν Εὐδοξόν.⁴

If it is right to see a deliberate acrostic of λεπτὴ in *Ph.* 783–7,⁵ word-play here is not impossible. It would serve as a kind of signature at the outset of the poem, modestly placed in the second line after Zeus in the first. The conceit of the poet's signature is otherwise illustrated by Nicander, *Ther.* 345–53, an acrostic deliberately set 'in the most ornamental passage of the poem',⁶ and *Alex.* 266–74.⁷

15–16 χαῖρε, πάτερ, μέγα θαῦμα, μέγ' ἀνθρώποισιν ὄνειρα,
αὐτὸς καὶ προτέρη γενεή. χαίροιτε δὲ Μοῦσαι

¹ The following editions of the *Phaenomena* contain the references ad loc.: P. Buttmann, *Arati Solensis Phaenomena et Diosemeia* (Berlin, 1826); M. Erren, *Aratos, Phaenomena* (München, 1971), with translation and notes; E. Maass, *Arati Phaenomena* (Berlin, 1893; repr. 1955); G. R. Mair, 'The Phaenomena of Aratus', *Callimachus, Lycophron, Aratus* (Loeb Classical Library, 1921), with translation and notes; J. Martin, *Arati Phaenomena* (Firenze, 1956), with commentary and translation; A. Schott and R. Böker, *Aratos, Sternbilder und Wetterzeichen* (München, 1958), translation and notes; J. H. Voos, *Ἀράτου Φαινόμενα καὶ Διοσήμεια* (Heidelberg, 1824), with translations and commentary; G. Zannoni, *Arato di Soli, Fenomeni e Pronostici* (Firenze, 1948), with translation and notes.

² J. Martin, *Scholia in Aratum Vetera* (Stuttgart, 1974), gives the scholia references ad loc.

³ The Ionic form of the name here may well be a conscious echo of Homer's Ἀρήτος θεοειδής (*Il.* 17. 494), who makes his appearance in this one episode only (494–536).

⁴ Martin, *Scholia*, p. 8.

⁵ J.-M. Jacques, 'Sur un acrostiche d'Aratos', *REA* 62 (1960), 48–61; E. Vogt, 'Das Akrostichon in der griechischen Literatur', *AA* 13 (1966), 83–7.

⁶ A. S. F. Gow and A. F. Scholfield, *Nicander* (Cambridge, 1953), p. 177.

⁷ See J.-M. Jacques, *REA* 57 (1955), 20.

There has been much controversy over the meaning and reference of *προτέρη γενεή*, both in antiquity and among modern critics. The *MQA* scholia lead off with the simple reference to Zeus himself: *ἐπὶ τοῦ Διὸς ἄμφω· χαίρει, ἐπεὶ αὐτὸς εἰ καὶ ἡ προτέρα γενεά*. This is straightforward: the poet is invoking Zeus and the Muses, and *προτέρη γενεή* is appropriate to the Stoic doctrine of Zeus the father-god.

But because *προτέρη γενεή* obviously echoes the same phrase in Hes. *Op.* 160 *ἡμίθεοι, πρότερη γενεή κατ' ἀπείρονα γαίαν*, other scholia make it an additional invocation meaning the Heroic Age, the age that precedes the present one. Some again refer it to the Golden Age, because that was more just. Others think it more appropriate that A. should mean earlier men, the astronomers, poets and mathematicians, from whom he drew the material for his poem.

Then there are scholia that take the words as referring to the generations before Zeus. Some say the Titans, whom Zeus consigned to Tartarus, some Kronos and Rhea, his own parents, some his elder brothers, and some the primeval gods associated with the sky, Ouranos, Astraios, Atlas, and more vaguely those who founded the dominion that later belonged to Zeus. The very diversity of all these interpretations suggests that none of them is entirely satisfactory, and this is because it is not clear why any of these gods, heroes or men should have such an important place in the poet's invocation along with Zeus and the Muses.

Most of the moderns, however, have assumed that a triple invocation is intended here, and, like the scholiasts, have referred *προτέρη γενεή* to either gods or heroes or men or a combination of these. Wilamowitz thought the phrase could only mean gods, but in this case the gods of the Stoic cosmos.⁸ Maass, Pasquali, Martin, Erren and Luck all refer to heroes,⁹ as in Hesiod, but have different interpretations of what those heroes are supposed to be: the Heroic Age, subject-matter of so much poetry (Maass); the souls of the earliest innocent men, now ministers of divine providence and denizens of the air and ether (Martin); the heroic figures who appear later in the *Phaenomena* in the mythical digressions (Luck); the first philosophers or astronomers or astronomer-poets (Pasquali); all who have promoted the lore of the stars, viz. the namer of the constellations (373), Hesiod, heroes who became or are celebrated by constellations, even the stars themselves (Erren). Zannoni says simply the stars. But the stars are not deified in the Greek tradition: their birth is briefly mentioned in Hes. *Th.* 382, but they are not themselves reproductive. Mair translates 'the Elder Race', and leaves the identification open.

As with the scholia the diversity and confusion in these interpretations show the unsatisfactory nature of this whole approach. A. is a lucid poet, and it is unlikely that he would have tacked on to his invocation of Zeus a phrase that required so much speculation to identify it. Hesiod, after all, does specify his reference as the demigods, and Homer, who uses the same phrase in *Il.* 23. 790, identifies it as referring to an earlier generation of men: *οὔτος δὲ προτέρης γενεῆς προτέρων τ' ἀνθρώπων*.

We must therefore return to the first explanation of the scholia and refer the phrase to Zeus himself. This was the judgment of Voss, who comments simply 'Alles bis zu *γενεή* ist Anrede an Zeus, wie der eine Scholiast es erklärt', and he translates 'selbst auch erster Geschlechtsursprung', referring back to line 5, and to the Orphic Hymn invoking Kronos: *γέννα, φύη μείωσι . . . γενάρχα* (13. 7). So Frøvig, who points out that the idea of all men being descended from Zeus is not in Greek mythology, but

⁸ U. v. Wilamowitz-Moellendorff, *Hellenistische Dichtung*, II (Berlin, 1924), p. 264.

⁹ E. Maass, *Aratea* (Berlin, 1892), pp. 317–20; G. Pasquali, 'Das Prooimion des Arat', *Xáριτες Friedrich Leo* (Berlin, 1911), pp. 117–20; G. Luck, 'Aratea', *AJPh* 97 (1976), 213–34.

purely Stoic: he translates 'du selbst bist auch unser erster Ursprung'.¹⁰ Similarly Schott translates 'Ja, unser Ursprung du!'.

I think myself that this is the right interpretation, and since most modern critics have either ignored or summarily rejected it (e.g. Luck dismisses it as 'an isolated guess and not a very likely one'),¹¹ it seems desirable to set out the arguments in its favour.

(1) Only two invocations are required by the context and by the Hesiodic tradition, namely to Zeus and to the Muses. A. characteristically reverses Hesiod's order by putting Zeus first. This is the climax of the proem, which is wholly devoted to the praise of Zeus: no other name comes into it, or is even suggested by it. (2) There are only two invoking verbs, *χαίρε* and *χαίροιτε*, and they are designed to make an elegant variation in number and mood. (3) The eulogy of Zeus forms a rhetorical tricolon with successively increasing terms of two, three and four words (or possibly a tetracolon with one, two, three and four), and reaches its own climax in the designation of Zeus as being also our progenitor. (4) The emphatic *αὐτός* is significant if referred to Zeus, 'yourself also our progenitor': it is somewhat pointless if added before a change of invocation. Indeed the whole phrase becomes clumsy and obscure, and not in A.'s normally lucid manner. (5) *γενεή* here of Zeus echoes *γένος* of us his children (5), and A. thus rounds off his proem with a return to the theme of his opening lines.

A. is, in a sense, bringing Hesiod up to date, as he does elsewhere in the proem, replacing the hard Zeus of the *Works and Days* by the kindly father-god of the Stoics. Thus *μεσται δὲ Διός* (2) corrects *πλείη μὲν γὰρ γαῖα κακῶν* (*Op.* 101), and *ὁ δ' ἥπιος ἀνθρώποισι δεξιὰ σημαίνει* (5-6) corrects *κρύψαντες γὰρ ἔχουσι θεοὶ βίον ἀνθρώποισι* (*Op.* 42). So here A. omits the Heroic Age, as he does also in 100-34, and points directly back to Zeus as the life-force from which all men are descended.

33-5 *Δίκτω ἐν εὐώδει ὄρεος σχεδὸν Ἰδαίοιο*
ἄνθρωποι ἐγκατέθεντο καὶ ἔτρεφον εἰς ἐνιαυτόν,
Δικταῖοι Κούρητες ὅτε Κρόνον ἐψεύδοντο.

The textual tradition is clearly *Δίκτω*, and most of the editors accept this as a masc. or neut. variant of the familiar fem. But it is difficult to see why A. should have used this otherwise unknown form, when the fem. was just as good. The scholia therefore explain the name as Dikton, a promontory in Crete near Mt Ida; alternatively they assume it is Mt Dikte that is meant, and find fault with *σχεδὸν Ἰδαίοιο* because Dikte is more than 1,000 stades from Ida. Strabo makes the same criticism,¹² but since he does not quote the first part of the line we cannot say whether he read *Δίκτω* or *Δίκτῃ* in his text of A. Still less can we infer from Strabo's criticism, as Martin does, that A. must have written *Δίκτῃ*. Whatever Strabo read or quoted from memory is no proof of what A. wrote two and a half centuries earlier.

Zenodotus of Mallos, perhaps contemporary with Strabo, explained *δίκτον* as the Cretan herb dittany, which would make the adj. *εὐώδει* particularly appropriate.¹³ He notes its use in making childbirth easier, and hence in offerings to Eileithyia. But *δίκτον* appears nowhere else, and if A. had meant the herb, he had the two forms, *δίκταμνον* and *δίκταμον*, available. This is more likely to be an attempt to solve the difficulty, rather than what A. intended. The same goes for Voss's ingenious *λίκνω*, despite Call. *Hy.* 1. 48.

The context does seem to require a place name. The island of Crete is introduced at 31, the place in Crete would naturally be given next in 33, and then the cave, as the actual spot, follows easily in 34. Maass in his apparatus records Grotius' conjecture

¹⁰ D. A. Frøvig, *SO* 15-16 (1936), 47.

¹² 10. 478.

¹¹ *op. cit.*, p. 215.

¹³ Martin, *Scholia*, p. 83.

Λύκτω, an echo of Hes. *Th.* 477 πέμψαν δ' ἐς Λύκτον, Κρήτης ἐς πίονα δήμον, of Rhea pregnant with Zeus. Hesiod's text repeats the name in 482, so it can hardly be doubted, and it is interesting to find that it has been corrupted to Δίκτον in one Hesiod manuscript. See M. L. West's full note on Lyctus in Hesiod.¹⁴ It seems most reasonable to suppose that Λύκτω is also the correct reading in A., since it resolves all the textual problems: (1) it derives from the Zeus legend as told by Hesiod, and the *Phaenomena* is a Hesiodic poem; (2) it is palaeographically very close to Δίκτω, and sufficiently unfamiliar to be easily corrupted in that direction, especially in view of the presence of Δικταῖοι in 35; (3) it is near Mt Ida, and although the Alexandrian poets sometimes confuse Dicte and Ida (e.g. Call. *Hy.* 1. 4–6, 47–51, and A.R. 1. 509, 1128–30), the matching line in Apollonius (who is imitating whom?), ἀντρῶν ἐν Ἰδαίῳ ἔτι νήπια κουρίζοντι (3. 134), associates the cave solely with Ida.

63–4 τῆς δ' αὐτοῦ μογέοντι κυλίνδεται ἀνδρὶ ἑοικὸς
εἶδωλον·

A. is taking the head of the Dragon as a starting-point from which to identify Engonasin (now the constellation Hercules). The pronoun τῆς thus refers back to κεφαλῇ in 61, but the gen. with αὐτοῦ is hardly possible Greek. Maass therefore adopted τῇδ' as adv. from the *recentiores* (Maass's apparatus is in error here, Martin's correct: *MS* I give τῆς δ'), and has been followed by Mair and Zannoni. Martin reads τῇ δ', and interprets as adv., translating 'dans la même région', and so presumably treating the two adverbs as emphasizing each other. This seems to me doubtful Greek. A. has αὐτοῦ by itself at the beginning of the line in similar transitions at 71, 197 and 225.

The scholia give clearly the sense required by the context: πλησίον τῆς κεφαλῆς, and in fact the *M* scholia have the note ἀντὶ τοῦ σύνεγγυς, while the *S* scholia comment λείπει τὸ ἐγγύς. The required meaning is thus 'near the head of the Dragon', which agrees with Eudoxus' παρὰ δὲ τὴν κεφαλὴν τοῦ Ὀφείως.¹⁵ Voss's conjecture of ἀγχοῦ for αὐτοῦ is therefore attractive. The two words are quite alike palaeographically, especially in capitals. Moreover ἀγχοῦ is construed with a gen. in Homer, e.g. *Il.* 24. 709 ἀγχοῦ δὲ ξύμβληντο πυλάων, *Od.* 6. 5 ἀγχοῦ Κυκλώπων. And as it gives exactly the sense required by context and scholia, it is very probably what A. wrote. A. does not use ἀγχοῦ elsewhere, but he has ἄγχι with gen. in 254 and 403.

141–5 δεινὴ γὰρ κείνη, δεινοὶ δὲ οἱ ἐγγύθεν εἰσὶν
ἀστέρες· οὐκ ἂν τοὺς γε ἰδὼν ἐπιτεκμήραιο,
οἷός οἱ πρὸ ποδῶν φέρεται καλὸς τε μέγας τε
εἷς μὲν ὕψωμαιων, εἷς δ' ἰξυόθεν κατιόντων,
ἄλλος δ' οὐραίοις ὑπὸ γούνασιν.

The Great Bear (κεῖνη) is an impressive group, and so are the three unnamed and unallocated stars that lie in its vicinity, one in front of (i.e. to the west of) its forefeet, one in front of its hindfeet, and the other below (i.e. to the south of) its hind-knees. The sense of 142 is that as soon as you see them you do not need any further guide to their identification: you can tell them by their brightness alone.

Martin notes that A. uses ἐπιτεκμαίρεσθαι to denote the finding of a constellation with the aid of its neighbours, as in 229, of the Ram, ζώνη δ' ἂν ὅμως ἐπιτεκμήραιο Ἀνδρομέδης, and 456, of the five planets, οὐκ ἂν ἔτ' εἰς ἄλλους ὁρόων ἐπιτεκμήραιο κείνων ἥχι κέονται. Both these examples, however, express the means of identification,

¹⁴ M. L. West, *Hesiod, Theogony* (Oxford, 1966), pp. 297–8.

¹⁵ Hipparchus, *Commentarii in Arati et Eudoxi Phaenomena*, ed. Manitius (Leipzig, 1894), 1. 2. 6.

viz. Andromeda's belt and the supposed other stars, but in 142 ἐπιτεκμήραιο has to be taken to include the sense of 'by other means'. Thus Martin translates 'on n'a pas à chercher d'autre point de repère', Erren 'brauchst du sie nicht mehr herauszusondern', Mair 'thou needst not further conjecture'.

It seems unlikely that ἐπιτεκμήραιο by itself can carry all this meaning. It is more probable that A. wrote ἔτι τεκμήραιο, as Voss conjectured. In 456, which is comparable in meaning with 142, ἔτι is in fact used along with ἐπιτεκμήραιο. Moreover, in 169–70 οὐδέ τις ἄλλω σήματι τεκμήραιο κάρη βοός the simple verb is used in the same sense as the compound, and ἄλλω there corresponds to ἔτι in 456.

239–41 οἱ δ' ἄρ' ἔτι προτέρω, ἔτι δ' ἐν προμολῇσι νότιοι
 Ἰχθύες. ἀλλ' αἰεὶ ἕτερος προφερέστερος ἄλλου
 καὶ μᾶλλον βορέας νέον κατιόντος ἀκούει.

One of the two fishes that form this constellation lies north of the equator, the other south of it and well to the west of the first fish. In 240 A. calls one of them προφερέστερος and in 241 refers specifically to the more northerly fish. The problem here is to decide what precisely προφερέστερος means and to which fish it refers.

On the face of it the two lines would seem to refer to the same fish, and this must be the northerly one. But in what respect is it προφερέστερος? This adj. in Homer means superior in some stated respect, e.g. Odysseus in archery, τῶν δ' ἄλλων ἐμέ φημι πολὺ προφερέστερον εἶναι (*Od.* 8. 221), Amphialus in jumping (*ib.* 8. 128), the suitors in strength (*Il.* 10. 134), mules in ploughing (*Il.* 10. 352). In Hesiod it means the most important of a group, e.g. Calliope of the Muses (*Th.* 79), Styx of the daughters of Ocean (*ibid.* 361). A., introducing Orion, asserts that no other stars will be found προφερέστερα θηήσασθαι (325), i.e. more conspicuous, superior in brightness, though the point of superiority is not actually expressed. In 177 the Bull is προφερέστερος Ἠνιόχοιο, but only in respect of its always reaching the horizon first, εἰς ἑτέρην καταβῆναι (178).

Here in 240 the point of superiority is not expressed, and there have been various attempts to define it. (1) The scholia explain as ὑπὸ λαμπροτέρων ἀστέρων διατυπούμενος. But this is not true: both fishes are rather faint, and have no star brighter than fourth magnitude. (2) Mair translates 'higher', and so presumably more conspicuous for observers in the northern hemisphere. This is possible, and would make sense. (3) Martin makes no comment, but translates 'va toujours plus vite'. Presumably he means that it reaches the horizon first (on the analogy of 177), but this is false, since it is the southerly fish that is farther west and so first to set. (4) Erren adopts this third explanation, 'immerzu ist der eine dem anderen voraus', and assumes that A. has confused the two fishes. But such a glaring error is unusual for A., and Hipparchus, who corrects A. in numerous places, has no criticism of this line. In any case προφερέστερος by itself can hardly mean 'to the west of'. The Latin translators, however, seem to have understood the adj. in this sense. Thus Cicero, following his model fairly closely, 'Pisces, quorum alter paulo praelabitur ante'.¹⁶ Germanicus, with more freedom and more understanding of the astronomy, makes 240 specifically refer to the southerly fish, in contrast to the northerly in 241: 'Pisces, quorum alter in austrum tendit, Threicium Borean petit alter...'¹⁷ So, among the moderns, Schott: 'Einer stets vorm andern westwärts schwimmt; der andre wohl zuvor des Nordwinds Hauch vernimmt'.

The Latin translators are, however, unreliable guides to the text and meaning of A. The use of καί to couple the two lines suggests that A. meant both of them to refer

¹⁶ *Aratea*, fr. 33. 12 (Soubiran).

¹⁷ *Aratea* 241–2.

to the northerly fish, and there is certainly no hint of an antithesis in the Greek. To say that it 'hears more the fresh onset of the north wind' means simply that it is farther north, just as in 386 ὑπὸ πνοιῇσι νότοιο means that the Southern Fish is farther south than Capricorn. The Greek compass points were normally named after winds. It seems best, therefore, to understand *προφερέστερος* in its most natural sense of 'more conspicuous', and to explain this with reference to the higher altitude of the more northerly fish as viewed from Mediterranean latitudes. If this is right, then line 241 may be regarded as supplementing 240, with the implication that it is more conspicuous because it is farther north.

268-9 καὶ Χέλυσ ἥ τ' ὀλίγη· τὴν δ' ἄρ' ἔτι καὶ παρὰ λίκνω
Ἑρμείης ἐτόρησε, Λύρην δέ μιν εἶπε λέγεσθαι.

A. has just described the Pleiades as a small group: αἱ μὲν ὁμῶς ὀλίγαι καὶ ἀφεγγέες (264), and now introduces the Lyre too as a small constellation. The text of all manuscripts, scholia and early editions, καὶ Χέλυσ ἥ τ' (or ἥ τ') ὀλίγη, will only make sense if punctuated with a comma after Χέλυσ and taken to mean 'Also the Lyre, that is small'. This reading is retained by most editors till Mair, who translates 'Yonder, too, is the tiny Tortoise'. But ἥ τε can hardly have this deictic force, and even as a plain demonstrative it is clumsy. It is unlikely that the scholar-poet would have expressed a simple meaning so awkwardly. All that the context requires is 'The Lyre is also small', and ἥ τ' or ἥ τ' must be corrupt.

Voss proposed ἥ δ', comparing Hom. *Od.* 1. 185 νηὺς δέ μοι ἥ δ' ἔστηκεν, and this has been adopted by Martin and Erren. But in the Homeric passage the ship is introduced in the preceding lines, whereas here there is no prior mention of the Lyre for ἥ δέ to refer back to. Buttman conjectured καὶ δὲ Χέλυσ, thus restoring the original long υ, as in Hom. *Hy.* 4. 24, 33 and 153. This makes good sense, and was adopted by Maass. A. does use καὶ δέ elsewhere, e.g. 256, 300, 913, 1010. It is, however, difficult to see how this could have been corrupted to produce the unconvincing ἥ τ'. And there is no need to restore the long υ, since the short vowel is found in lyrics (e.g. Eur. *Alc.* 448) and in Hellenistic hexameters (e.g. Call. *Ap.* 16). Kaibel, reviewing Maass, suggested καὶ Χέλυσ ἦν, the past tense referring to the time of the Lyre's invention.¹⁸ But A.'s purpose is to point out the constellations as they appear in the present, and a simpler solution would be καὶ Χέλυσ ἔστ' ὀλίγη.

404-7 τοῦ δ' ἥτοι ὀλίγον μὲν ἐπὶ χρόνον ὑψόθ' ἐόντος
πεύσεαι· ἀντιπέρην γὰρ αἰρείται Ἀρκτούροιο.
καὶ τοῦ μὲν μάλα πάγχυ μετῆροί εἰσι κέλευθοι
Ἀρκτούρου, τὸ δὲ θάσσον ὑφ' ἐσπερίην ἅλα νεῖται.

The Altar describes a small arc above the horizon (404), Arcturus a very large one (406). In this respect the Altar is the opposite of Arcturus (405). The contrast is simple and the expression of it perfectly clear. The ancient commentator Attalus, however, confused the issue by supposing that A. was equating their distances from the south and north poles respectively: περὶ δὲ τοῦ Θυμιατηρίου ποιούμενος τὸν λόγον φησὶν αὐτὸ κείσθαι πρὸς τὸν ἀφανῆ πόλον οὕτως ἔχον ὡς ἀστήρ ὁ καλούμενος Ἀρκτούρος πρὸς τὸν φανερόν κείται πόλον.¹⁹ Then Hipparchus, instead of pointing out that A. says nothing about polar distances, censures both A. and Attalus for making this assumption.²⁰ He goes on to refute the assumption very easily by noting that Arcturus is 59° from the north pole and the central star of the Altar 46° from the south pole.

¹⁸ G. Kaibel, *Göttingische Gelehrte Anzeiger* 1 (1893), 952.

¹⁹ Hipparchus, op. cit. 1. 8. 15.

²⁰ ibid. 14-15.

It is interesting that the scholia make no mention of this dispute, but modern scholars have revived it. Mair and Martin summarize Hipparchus' criticism, as if agreeing with his view of A.'s meaning. Böker's note to Schott's translation implies the same misunderstanding. Erren repeats the error, but in a different form, when he comments: 'Dass er "gegenüber dem Arktur" aufgeht, soll heissen, dass er eben so weit südlich des Äquators steht wie der Arktur nördlich'.²¹ If we take Hipparchus' figures for the respective polar distances, the centre of the Altar then lay 44° south of the equator and Arcturus 31° north of it.

We must return, therefore, to what A. actually says. The point of the comparison is the length of the arcs above and below the horizon. This depends, certainly, on the polar distances, but also, and essentially, on the latitude of the observer. For Athens at 38° N. the Altar was above the horizon for about 8 hours and below it for about 16, whereas Arcturus was above the horizon for about 16 hours and below it for about 8. It is in this respect that the Altar is the opposite of Arcturus. A. makes much of the Altar as a weather sign here, with one of his extended passages on the cruel sea, and again at 434. It is an important sign, in spite of being so far south that it is only visible for a short time in Greece, and the elaborate contrast with Arcturus is designed to emphasize this fact.

The verb *αίρεται* refers, then, not to the moment of rising, but to the period above the horizon. The Altar and Arcturus do not rise or culminate at the same time, as Erren rightly notes,²² and so are not cosmographically opposite each other. It is, therefore, misleading to translate, as Mair does, 'for it rises over against Arcturus', or as Erren, 'er erhebt sich nämlich gegenüber dem Arktur'. What A. means is that the Altar's period of visibility is the opposite of Arcturus'.

413-17 τῷ μὴ μοι πελάγει νεφέων εἰλυμένον ἄλλων
εὐχέο μεσσόθι κείνο φανήμεναι οὐρανῷ ἄστρον,
αὐτὸ μὲν ἀνέφελόν τε καὶ ἀγλαόν, ὕψι δὲ μάλλον
κυμαίνονται νέφει πεπιεσμένον, οἷά τε πολλὰ
θλίβει ἀναστέλλοντος ὀπωρινοῦ ἀνέμοιο.

The tradition of manuscripts and scholia clearly supports *εἰλυμένον ἄλλων*, though a variant *εἰλυμένω* is also attested. The scholia explain the weather conditions as τῶν πλησίον τοῦ Θυττηρίου καὶ ἀνωτέρων ἄλλων ἀστέρων ὑπὸ νεφῶν κεκαλυμμένων, i.e. the Altar is low in the south and clear, while the sky above it is heavily clouded, so that the other stars are obscured. Thus *εἰλυμένον* refers to the Altar and means 'arched over', an appropriate sense for *εἰλύω* 'wrap round'. The same verb is used in 432 of a slight haze obscuring a star, but the different meaning here is made clear by the reiteration in the next two lines that the constellation itself is visible. The main difficulty lies with *ἄλλων*, which the scholia above explain by reference to 'other stars'.

Attempts to resolve the problem have been unsatisfactory. Voss ingeniously suggested *ἀχλύι*, but *ἀχλὺς* is a haze (cf. 432 and 893), not the massed clouds described here. Maass put a comma after *εἰλυμένον*, and took *ἄλλων* with *μεσσόθι*, 'in the midst of the other constellations'. But the sense of the passage requires the other constellations to be clouded over. Mair's version also takes *ἄλλων* with *μεσσόθι*, and hardly makes sense: 'that that constellation wrapt in clouds appear not amidst the others in the heavens'. Martin has adopted Grotius' conjecture *εἰλυμένω ἄλλω*, construing the datives with *οὐρανῷ*, and translating 'au milieu d'un ciel enveloppé de nuages partout ailleurs'. So Erren, 'bei sonst von Wolken verhülltem Himmel'. This certainly gives

²¹ M. Erren, *Die Phaenomena des Aratos von Soloi* (Wiesbaden, 1967), p. 66.

²² *ibid.* pp. 66-7.

the right kind of sense, but A. was not so clumsy a composer as to place a dative participle so close to *πελάγει* and intend it to be taken with *οὐρανῶ* in the next line.

It is simpler to retain *εἰλυμένον ἄλλων* and understanding the adj. in its pleonastic sense, as in Hom. *Il.* 4. 81 *ὥδε δέ τις εἵπεσκεν ἰδὼν ἐς πλησίον ἄλλον*. Not that the adj. is superfluous: it is intended to contrast the clouds everywhere else with *κεῖνο φανήμεναι*, the visible constellation. Compare the contrast between hearsay and first-hand information in S. *OT* 6–7 *ἀγὼ δικαίων μὴ παρ' ἀγγέλων, τέκνα, ἄλλων ἀκούειν αὐτὸς ὥδ' ἐλήλυθα*. A. has expressed his antithesis with a meaningful chiasmus, in which *νεφέων εἰλυμένον* (413) is answered by *νέφει πεπιεσμένον* (416), and *φανήμεναι* (414) by *ἀνέφελον* (415). Thus the verbal pattern (banked clouds – Altar clear – Altar clear – banked clouds) is designed to illustrate the striking scene that the words are actually describing.²³

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²³ I am grateful to the editors' referee for criticisms which I have found most helpful in revising this paper.