CICERO'S ASTRONOMY[1]

1. INTRODUCTION

Imagine that the only reliable way of telling the time of year was by the stars. The observer would have to know the positions of the constellations and their movements relative to one another, and to be aware of the meteorological phenomena accompanying them. This is the information Aratus' *Phaenomena* gives us: the poet maps the position of the stars; he provides a celestial relative chronology; and he explains what sort of weather can be expected to accompany which movement of which constellation.

The Julian calendar reform meant that observation of the stars became unnecessary. When the celestial and civil years are in harmony with one another, particular events in the human calendar reliably take place on a certain date in the cosmic year, and a mental database of constellations is no longer needed in order to know when to plant or harvest. In the Roman calendar after 46 B.C., the Parilia, Vinalia, and other agricultural festivals could be relied upon to fall at the correct season for their celebration. Nonetheless, the Romans retained the tradition of celestial relative chronology at least until the fourth century A.D. Roman interest in Aratean celestial chronology begins with Cicero's *Aratea*, his translation of Aratus, in the first century B.C., and continues, via Virgil's use of Aratus for his farmer's calendar in Book 1 of the *Georgics*, and Germanicus' *Phaenomena* (*c.* A.D. 17), to Avienus in the fourth century, and into the Middle Ages via the *Aratus Latinus*.

Cicero himself provides clear evidence that Aratean celestial chronology straddled the period of calendar reform: he wrote the *Aratea* as a youth in *c.* 89 B.C., about eight years before his first legal case, the *Pro Quinctio* (81), but quoted it again as a mature philosopher, in the second book of the *De Natura Deorum*, written in 45 B.C. Balbus, the Stoic speaker in the *D.N.D.*, having quoted a large chunk of the *Aratea* at 2.104–15 to illustrate the providential arrangement of the stars (see below), may refer shortly afterwards to the calendar reform (2.153):

> Quid vero? Hominum ratio non in caelum usque penetravit? Soli enim ex animantibus nos astrorum ortus, obitus, cursusque cognovimus, ab hominum genere finitus est dies, mensis, annus, defectiones solis et lunae cognitae praedictaeque in omne posterum tempus, quae, quantae, quando futurae sint.

> Then again, has not our human reason advanced to the skies? Alone of living creatures we know the risings, settings, and courses of the stars. The human race has laid down the limits of the day, the month, the year; they have come to recognize eclipses of the sun and moon, and have foretold the extent and the date of each occurrence of them for all days to come.[2]

Pease, commenting on this passage, believed that *dies mensis annus* refers to Caesar's calendar reform, which took place shortly before the composition of the *D.N.D.*,

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[2] All translations of the *D.N.D.* are taken from P. G. Walsh, *Cicero: On the Nature of the Gods* (Oxford, 1997).

although the reference may be anachronistic to the dramatic date of the dialogue.[3] The ordering of time is made possible in the first instance by observing the heavenly bodies (*astrorum ortus, obitus, cursusque*), which display *ratio* analogous to mankind's *ratio*, and enable the observer to establish the cycles of time.

Cicero may have revised all or part of the *Aratea* in the period between its composition and his later quotation of it.[4] This in itself is evidence that Cicero maintained his interest in the *Aratea* throughout his life, while his other youthful poems fell into obscurity. There is other evidence as well: in a letter to Atticus of June 60 B.C. (*Att.* 2.1.11), Cicero warns his friend to expect a copy of his *Prognostica* (the latter part of his translation of Aratus) forthwith. This may have been a revised version of some of Cicero's youthful composition, or a newly composed rendition of part of it. The debate is inconclusive;[5] what is interesting is that in this year Cicero was also engaged in the composition of the *De Consulatu Suo*. Judging by the speech of Urania from this work, omens and predictions must have taken on renewed importance for Cicero at this time, and Aratus makes ideal material with which to meditate on such things.[6]

The *Aratea* survives and flourishes continuously into the medieval period.[7] The secret of its survival, from Cicero's time onwards, is probably the ability of the poem to adapt to new contexts, and the symbolic richness of the stars that form its subject.

2. AN APOLOGY FOR THE *ARATEA*

The *Aratea* has until recently either been largely ignored or criticized both as a work of poetry and as a mine of astronomical information. A quotation from Townend can exemplify this: 'If there were more interest today in the texts of Roman astronomy, Cicero's translation [of Aratus] would earn more readers. But, as little was lost in the change from Greek to Latin, so an English translation can be entirely adequate to reproduce most of the Latin translation.'[8] Implicit in this kind of approach is the

[3] A. S. Pease (ed.), *M. Tulli Ciceronis De Natura Deorum*, 2 vols (Cambridge MA, 1955–8), on 2.153.

[4] For the arguments, see J. Soubiran, *Cicéron, Aratea, Fragments Poétiques* (Paris, 1972), 8–16.

[5] See A. S. Pease, 'Were there two versions of Cicero's *Prognostica*?', *CPh* 12 (1917), 302–4, and Soubiran (n. 4), 9–16.

[6] On Aratean influence on the *De Consulatu Suo*, see D. Kubiak, 'Aratean influence on the *De Consulatu Suo* of Cicero', *Philologus* 138 (1994), 52–66. It is probably through the *De Consulatu Suo* that Aratus influences in turn Lucan's predictions at the close of *Pharsalia* 1. On Lucan as a reader of Cicero's *Cons.*, see (briefly) T. P. Wiseman, *Historiography and Imagination* (Exeter, 1994), 57.

[7] The text is progressively augmented by scholia, illustrations, and diagrams. See G. Kauffmann, 'De Hygini memoria scholiis in Ciceronis Aratum Harleianis servata', *Breslauer philologische Abhandlungen* 3.4 (1888), 24–36; F. Saxl and H. Meier, *Verzeichnis astrologischer und mythologischer illustrierter Handschriften (Catalogue of Astrological and Mythological Illuminated Manuscripts of the Latin Middle Ages)* (London, Warburg Institute, 1953), vol. 3.1, 149–51 and pls. 57, 60, and 61 (on Harleianus 647); M. D. Reeve, 'Aratea', in L. D. Reynolds (ed.), *Texts and Transmission* (Oxford, 1983), 18.

[8] G. B. Townend, 'The poems', in T. A. Dorey (ed.), *Cicero* (London, 1965), 113. Stephen Hinds, in *Allusion and Intertext* (Cambridge, 1998), 82, is to my knowledge the only anglophone scholar who has recently gone some way towards showing how the *Aratea* might be rehabilitated: 'How far should we relativise the impact of a Parthenius upon a Rome which had already played host to an Archias for more than a generation, the Rome of Laevius, the Rome in which the young Cicero could write a post-Callimachean *Glaucus* and a Latin *Aratea*, the latter several years before Cinna (fr. 11 Courtney) made the importation of an exquisite copy of Aratus from Bithynia into a Neoteric position-statement?'

view that Cicero's *Aratea* is unworthy of study for its own sake, partly because of its intrinsic lack of poetic worth, partly because of the uninteresting nature of its subject matter.

This sort of view is not without precedent in ancient criticism. Quintilian believed that the subject matter of Cicero's model Aratus—which was all that poet thought himself fit to deal with—lacks movement, emotion, proper characters, and direct speech ('Arati materia motu caret, ut in qua nulla varietas, nullus adfectus, nulla persona, nulla cuiusquam sit oratio; sufficit tamen operi, cui se parem credidit', *Inst. Orat.* 10.1.55). On this evaluation of Aratus, Cicero could have had little hope of producing anything interesting by translating the *Phaenomena*.[9]

Alternatively, one can see the modern dismissal of the *Aratea* as a fit subject for study as germinating with Cicero himself. Cicero's epics, the *De Consulatu Suo* of 60 and the *De Temporibus Suis* of 55–4, were grand epic in the Ennian tradition. On the other hand, the *Aratea*, and several of Cicero's other youthful poems, can be considered forerunners of the Neoterics. Cicero is an experimenter in syntactical Grecism, especially in the *Aratea*.[10] His metrical technique is closer to Virgil than was Lucretius' in the fifties B.C. The titles of his early poems read like a catalogue of neoteric *topoi*. Many deal with metamorphosis, an Alexandrian topic later exploited by Ovid in the *Metamorphoses*. For example, the boyhood *Pontius Glaucus* of 95–90 B.C. may have been about the shape-changing capacity of Glaucus the sea-god.[11] A *Glaukos* is attributed to Callimachus; Cornificius tried the same subject;[12] Ovid treats it at *Met*. 13.904–14.69. Likewise the *Alcyones*. In this myth Ceyx and Alcyone are changed into halcyons; Ovid tells the story at *Met*. 11.410–748. Associated with metamorphosis is the topic of the wonders of sea and land, and another of Cicero's early poems may fit here, the *Nilus*, possibly a didactic work on the marvels of the Nile, also an Alexandrian subject.[13] The *Aratea*, about the wonders of the sky, involving myths of metamorphosis, is at home in this company.

Aratus himself was appropriated by the neoteric poet Cinna, in, as Hinds puts it, a 'neoteric position-statement'.[14] Cinna's epigram appears to refer to a minuscule mallow-leaf (or mallow-bark?) copy of Aratus.[15] In describing his Aratus, Cinna imitates Callimachus, *Epigram* 27 Pf., on Aratus:

Ἡσιόδου τό τ᾽ ἄεισμα καὶ ὁ τρόπος· οὐ τὸν ἀοιδὸν
ἔσχατον, ἀλλ᾽ ὀκνέω μὴ τὸ μελιχρότατον

[9] For ancient verdicts on Cicero's poetry generally, see Juvenal, *Satire* 10.122ff., Quintilian, *Inst*. 11.1.24, and Soubiran (n. 4), 69–72 for the rest of the bad press. Even Plutarch, who might be considered Cicero's apologist, especially in the sphere of poetry, has to admit that Cicero filled his books with praise of himself, which tended to alienate people (*Cicero* 24). He also tells us that Cicero was capable of churning out 500 verses in a single night, which Catullus might not have considered a good sign. Criticisms tend to be directed *not* at the *Aratea* but at Cicero's later self-panegyrical epics, the *De Consulatu Suo* and the *De Temporibus Suis*. Accusations of bad poetry have apparently oozed back from Cicero's works of political epic and infected scholars' views of the *Aratea*.

[10] See Roland Mayer in J. N. Adams and R. G. Mayer (edd.), *Aspects of the Language of Latin Poetry*, *Proceedings of the British Academy* 93 (1999), 59. For example, the first instance of the anastrophe of a monosyllabic preposition in Latin is *Aratea* 201, *parte ex Aquilonis*; the earliest example of *tenus* with genitive rather than accusative or ablative is *Aratea* 83, *lumborum tenus* (cf. Virgil, *Geo*. 3.53 and *Aen*. 3.427).

[11] See Plutarch, *Cicero* 2.

[12] Ovid, *Tr*. 2.436, Macrobius, *Sat*. 6.5.13.

[13] Compare Lucretius 6.712–37, Lucan 10.210–331.

[14] See n. 8 above.

[15] E. Courtney, *The Fragmentary Latin Poets* (Oxford, 1993), 221–2, Cinna fr. 11.

τῶν ἐπέων ὁ Σολεὺς ἀπεμάξατο· χαίρετε, λεπταὶ
ῥήσιες, Ἀρήτου σύντονος ἀγρυπνίη.

The subject and style are Hesiod's; but the poet of Soli did not copy the whole poem[16]—to be sure—only the sweetest verses. Hail charming words, the concentrated wakefulness of Aratus.

Haec tibi Arateis multum vigilata lucernis
Carmina, quis ignes novimus aerios,
Levis in aridulo maluae descripta libello
Prusiaca vexi munera navicula.

I've brought on a Bithynian ship as a gift these verses, through which we know the celestial fires, the work of much sleepless Aratean lamplight, written in a little crisp book of smooth mallow.

Cinna's copy of the *Phaenomena* is a perfect image for the Alexandrian and Neoteric ideal of λεπτότης evoked in the two diminutives, *aridulo* and *navicula*. *levis*, 'smooth', and *libellus*, recall Catullus, Poem 1, where the book is likewise the embodiment of the Neoteric ideal. The journey the book has made from Bithynia is the same journey earlier made by Parthenius.

We know from *Tusc*. 3.45 that Cicero distanced himself from the *poetae novi*.[17] My view is that, in reaction to them, he may have deliberately marginalized his own experimental works by trying to write nationalistic epic. In effect he over-writes his early Alexandrian-type poems with the epics of his maturity: probably a mistake. It would be uncharitable to suggest that when Cicero saw that his poetic talent could not hope to outdo that of the Neoterics, he turned to non-neoteric poetry, as an area in which he might not be challenged by better poets. Whatever the case, it is interesting that, of Cicero's early poems, only the *Aratea* lives long and prospers.

Scholars and readers in the medieval period did not view the poem in a negative light. It was copied in England in the early Middle Ages, as an early manuscript in Trinity College Cambridge (Trin. 945, tenth century, probably from Winchester) testifies;[18] Harleianus 647 and other manuscripts of the early medieval era indicate the popularity of the work elsewhere. The *Aratea* remained a teaching text at least until the fifteenth century. *Vat. Reg*. 1324 (fifteenth century), a scholastic compendium of astronomical and astrological texts, shows how readers at that date thought of Cicero's poem: as an adjunct to the study of astrology.[19] Cicero himself would have been horrified at the incorporation of the *Aratea* into the discipline of astrology, which he describes at *De Divinatione* 2.90 as *deliratio incredibilis*.

3. THE *ARATEA* OF *c.* 89 B.C.: PEGASUS, AQUARIUS, AND CAPRICORN

Cicero's poem is an enjoyable read in its own right, with its vividly cartographic and relational, but at the same time intimate, descriptions of the stars, and its games with literary models, not just Aratus, but the Aratean scholiastic and mythographical

[16] Hesiod's *Works and Days*.
[17] See also *Att*. 7.2.1.
[18] M. R. James, *The Western Manuscripts in the Library of Trinity College Cambridge: A Descriptive Catalogue*, 4 vols (Cambridge, 1900–4), vol. 2, 363–6.
[19] See E. Pellegrin et al., *Les manuscrits classiques latins de la Bibliothèque Vaticane*, Éditions du centre national de la recherche scientifique (Paris, 1978), vol. 2.1, 165–7.

tradition, and Ennius as well. I have chosen an exemplary passage to demonstrate this, showing in bold Cicero's additions and changes to Aratus:

λαιῇ δὲ πτέρυγι σκαρθμὸς παρακέκλιται Ἵππου.
τὸν δὲ μετασκαίροντα δύ᾽ Ἰχθύες ἀμφινέμονται
Ἵππον. πὰρ δ᾽ ἄρα οἱ κεφαλῇ χεὶρ Ὑδροχόοιο
δεξιτερὴ τάνυται· ὁ δ᾽ ὀπίστερος Αἰγοκερῆος
τέλλεται. αὐτὰρ ὅ γε πρότερος καὶ νειόθι μᾶλλον
κέκλιται Αἰγόκερως, ἵνα ἲς τρέπετ᾽ ἠελίοιο.

(Aratus, *Phaenomena* 281–6)[20]

By the left wing of the Bird lies the prancing horse. The two Fishes range about the Horse as it prances among them. Beside the Horse's head the right hand of the Water-pourer stretches out: he rises after Capricorn. Capricorn lies ahead and lower down, where the powerful sun turns back.

iam vero clinata est **ungula vemens**
fortis Equi propter **pinnati corporis** alam.
ipse autem labens **mu[l]tis** Equus ille tenetur
Piscibus; huic cervix dextra mulcetur **Aquari**.
serius haec obitus terrai vissit **Equi vis,**
quam **gelidum valido de pectore frigus anhelans**
corpore semifero magno Capricornus in orbe;
quem cum perpetuo vestivit lumine Titan,
brumali flectens **contorquet tempore currum.**

(Cicero, *Aratea* 53–61)

Next, the forceful hoof of the powerful horse slopes near the wing of the pinioned figure. The Horse himself, gliding across the sky, is held by the ?silent Fish, and his neck is stroked by Aquarius' right hand. This powerful horse reaches the horizon later than Capricorn, who breathes out icy cold from his strong breast, with his half-beast body in the great circle [of the Zodiac]; when at the winter solstice the Sun has clothed Capricorn with his eternal light, he wheels his chariot and changes direction.

Cicero has changed his Aratean model in the following ways:

1. In translation, Cicero seems to confuse Pegasus with Aquarius, and rising with setting. In *Phaenomena* 284–5, *ὁ δ᾽ ὀπίστερος Αἰγοκερῆος* / *τέλλεται*, 'he rises later than Capricorn,' the subject of *τέλλεται* is Aquarius, not Pegasus; but Cicero has translated the line, in line 57 of the *Aratea*, as though it is the Horse, not Aquarius, who is 'later': *serius quam Capricornus obitus terrai vissit equi vis*.

In addition, Cicero's phrasing—*obitus terrai vissit*, 'reaches the [Western] horizon'—suggests that he has substituted the setting of Pegasus for rising, as given by Aratus. In addition, the star which rises in Aratus is *Aquarius*, not Pegasus. It seems that there is a translation error and an astronomical error within three lines of Cicero.

2. Aratus' main task in this part of the *Phaenomena* is to map the relative positions and motions of the stars. Words denoting relative space and time are most prominent in Aratus: *λαιῇ δὲ πτέρυγι*, *παρακέκλιται*, *μετα-*, *ἀμφι-* (reciprocal prepositions indicating the relative positions of the fish and the horse), *ὀπίστερος*, *πὰρ δ᾽ ἄρα οἱ κεφαλῇ*, *πρότερος καὶ νειόθι μᾶλλον*, *ἵνα*. Cicero, on the other hand, is 'tactile'.[21]

[20] All translations of Aratus are taken from D. Kidd (ed.), *Aratus, Phaenomena* (Cambridge, 1997). In this passage, Kidd's version of 281 is modified. For detailed examination of different passages of the *Aratea*, see P. Toohey, *Epic Lessons* (London, 1996), 79–87.

[21] Toohey (n. 20), 87.

This quality replaces Aratus' descriptive cartography. There are no words denoting relative spatial position in Cicero, although many denote relationship, such as *tenetur*, *mulcetur*, *vestivit*. Aratus' ἀμφινέμονται in *Ph*. 282 becomes Cicero's *tenetur* at *Aratea* 55, conveying a sense of touch. The monumental juxtaposition of constellations in the *Phaenomena* becomes contact between characters in a Ciceronian drama. This is more so with *mulcetur* in the next line.[22] In reality the right hand of Aquarius does not 'caress' the Horse, it holds the urn.[23] Cicero converts the celestial horse into a real one, Aquarius into its rider, in a tender scene. The passive horse is the recipient of a lot of attention in Cicero, being 'held' by the Fishes and 'stroked' by Aquarius. This is not in tune with Aratus' double assertion of his rampant position in σκαρθμός and μετασκαίροντα. Cicero has taken the movement out of the horse and replaced it with linguistic vigour. This is typical of displacement of attention in the *Aratea* from subject to author, so that we see the process of virtuoso composition in action.

3. Cicero has embellished his original. Six lines of Aratus become nine lines of Cicero.

The main Ciceronian additions to Aratus in these lines are:

(a) 53—*Ungula vemens* (roughly parallel in idea to σκαρθμός), and 54, *fortis*
(b) 55—*mu[l]tis* or *mutis*
(c) Lines 58–9 are an addition
(d) Lines 60–1 tamper with the Aratean economy of expression.

In the case of (a), perhaps Cicero has in mind Ennius, *Annales* 263,[24] *consequitur; summo sonitu quatit ungula terram* ('They gave chase; with mightiest clatter their hooves shook the ground'). The only word in common is *ungula*; but the idea of force in Ennius' line fits the Ciceronian adjective *vemens*. *fortis equi* in 54 is perhaps another Ennianism; consider *Ann*. 522–3 (388–9 W. = 522–3 Sk.):

> sicut fortis equus spatio qui saepe supremo
> vicit Olympia, nunc senio confectus quiescit.

Just as a valiant steed, who has often won victories at the Olympic Games in the last lap, now at length, worn out by old age, takes rest . . .

Ennius also has *denique vi magna quadrupes, eques atque elephanti / proiciunt sese* ('Lastly with a mighty rush the horsemen at a four-footed gallop and the elephants too hurl themselves onwards') at *Ann*. 236–7 (256–7 W. = 236–7 Sk.); compare this with *Aratea* 57, *Equi vis.* A combination of Cicero's *fortis equi* and *equi vis* (or a parallel reminiscence of Ennius) gives rise to Lucretius' simile at *D.R.N. 3.8,* where the power of Epicurus is strikingly likened to *fortis equi vis.*

In (b), *mutis* is an emendation of *multis*, which may be right, given parallels for the idea of fish as 'mute', such as Lucretius 2.342 *mutaeque natantes*.[25] I think Cicero has

[22] Cicero uses the same verb at *Aratea* 88.
[23] See J. Soubiran (ed.), *Vitruve, De l'architecture livre 9* (Paris, 1969), on Vitruvius 9.4.3.
[24] Text and tranlsation taken from E. H. Warmington (ed.), *Remains of Old Latin* 1 (London and Cambridge MA, 1935). Fr. 283 Warmington = 263 in O. Skutsch (ed.), *The Annals of Q. Ennius* (Oxford, 1985).
[25] For further parallels, see Soubiran (n. 4), ad loc.

introduced an Alexandrian-style natural-philosophical footnote into Aratus' text, thus out-Alexandrianizing the Alexandrian model.[26]

Characteristic of the young Cicero's technique is his omission in *Aratea* 58–9 of Capricorn's spatial position and its substitution by the description of cold, for which there is no parallel at this precise point in Aratus. The priority here is Ciceronian display of poetic technique and sound: the shivery alliteration of l and n in *gelido*, *valido*, *anhelans*, and of g in *gelidum* and *frigus;* assonance and alliteration in *corpore . . . Capricornus . . . orbe* and *semifero magno*. Note also the patterning of the line, with the framing of *valido de pectore* by *gelidum frigus*, and the double description of cold.[27]

Overall, note the vigour of Cicero's diction and imagery. Much of this effect is gained by importation of Ennian imagery and diction into the Aratean text. Cicero's Ennianisms probably mostly belong in the realm of unconscious allusion: but Conte has taught Latinists the value of considering unconscious reference to a poetic 'code' as well as conscious *imitatio* or *aemulatio* of a 'source' in creating the meaning of a text.[28] Two factors are at play in the *Aratea*: its model, Aratus, and its code, Ennius and earlier Roman epic. Each Aratean gem, each constellation, is placed in a setting adapted to the Roman epic context.

In addition, Cicero may conflate or duplicate independent passages from the Aratean original. Take *ungula* in 53. Where Cicero discusses the position of Pegasus in fr. 32, the fragment as preserved does not include a reference to Pegasus' creation of Hippocrene, the spring of the muses. Aratus had made much of this at *Ph*. 218–220:

> οὐ γάρ πω Ἑλικὼν ἄκρος κατελείβετο πηγαῖς,
> ἀλλ' Ἵππος μιν ἔτυψε, τὸ δ' ἀθρόον αὐτόθεν ὕδωρ
> ἐξέχυτο πληγῇ προτέρου ποδός.
>
> (*Phaenomena* 218–20)

The summit of Helicon was not then flowing with streams, but the Horse struck it, and from that very spot a flood of water gushed out at the stroke of its forefoot . . .

The phrase Aratus uses is πληγῇ προτέρου ποδός, 'with a blow of his forefoot'. Cicero's *ungula vemens* seems closer to this than to Aratus' σκαρθμός, 'prancing', in *Ph*. 281, the passage Cicero is supposedly translating here, and *ungula* may serve to remind us specifically of the creation of Hippocrene.

When he added things to Aratus, Cicero may have had in mind yet other sources such as the mythological scholia on Aratus. *semifer* in *Aratea* 59 is an addition to Aratus, and unusual of a beast/beast combination like Capricorn; usually the adjective describes combinations of man and beast. Did Cicero know the mythographical tradition, recorded in texts which include Eratosthenes' *Catasterismoi* and the Scholia on Aratus, where Capricorn was Aegipan, the son of Pan by the She-goat Aix (also a constellation), half-man, half-goat?[29]

In this passage, Cicero's technique is to mix different passages from Aratus, to lace

[26] Or alternatively, *multis*, although awkward, may be a crude attempt to outdo Aratus' δύο numerically, even at the expense of the meaning of the Greek.

[27] For the *iunctura*, see Lucretius 5.641 *gelidis a frigoris umbris*.

[28] G. B. Conte, *The Rhetoric of Imitation* (Ithaca and London, 1986), 31.

[29] Scholia on Aratus 282; Eratosthenes, *Catasterismoi* 27; Nigidius Figulus fr. 99, ed. A. Swoboda, *P. Nigidii Figuli operum reliquiae* (Amsterdam, 1964); Hyginus, *Ast*. 2.28 (see Soubiran [n. 4], 205, n. 12). K. Neiss, '*Semifer Capricornus*', *Hermes* 89 (1961), 498–502, proposed that Cicero followed the interpretation of these mythographers.

Aratus with later exegetical sources,[30] and to place the whole in an Ennian frame.[31] Such a technique enables Cicero to hint with a single adjective or phrase interpolated into the Aratean text at a world of mythographical, decorative, or epic possibilities, and to set up a dialogue between Greek and self-consciously Roman elements in the poem. Technical accuracy is not a primary aim; the stars carry a value other than the purely cartographic. The next stage of my argument will be to explore the symbolic value of the stars.

4. THE *ARATEA* OF 45

There are, so to speak, two *Aratea*s: the poem may take on new significance for Cicero the philosopher from that which it had as a translation by the young poet. The *Aratea* can be informatively read against Cicero's natural philosophical output. Its place in the *D.N.D* is proof enough of this; it might also be possible to show how it relates to other works of the Ciceronian philosophical *corpus*, especially the *Timaeus* and the *Republic*. None of Cicero's philosophical works are 'translations' in the verbatim sense—nor, I would argue, should the significance of the *Aratea* be limited by seeing it only as a *verbum pro verbo* translation.

In this section I want to try to hint at some of the wider questions which can be brought to bear on the *Aratea*, studying in particular the Stoic reading of the poem by Cicero's Stoic speaker, Balbus, in the second book of the *D.N.D*.[32] I would also like to consider the *Aratea* as a starting point for thinking about the connection between poetry, oratory, and natural philosophy in Ciceronian thought.

We have seen above how Cicero provides evidence that Aratean celestial chronology straddled the period of calendar-reform. In the 'narrative economy' of the *D.N.D.* itself, the *Aratea* has an additional function: it is used by the Stoic speaker to illustrate the layout of the heavenly bodies, as evidence of divine Providence. At *D.N.D*. 2.88, a model sphere of Posidonius is used to illustrate the maxim at 2.87, that, just as *ratio* is evident in human *artes*, such as the manufacture of a geometrical sphere, and the manufacture of poetry, so it must be the more evident in a world created by artificer-

[30] Soubiran (n. 4), 93. On the tradition generally, see J. Martin, *Histoire du texte des Phénomènes d'Aratos* (Paris, 1956), 12–24 and 199–204. Martin argues for the Alexandrian origin of our scholia; if this is so, Cicero might well have had something closely resembling our text of them. Some other examples of the possible influence of the exegetical tradition on Cicero's reading of Aratus are as follows (see Soubiran [n. 4], 93, n.2 for additional examples):

Aratea 92, *Delphinus iacet, haud nimio lustratu' nitore*, appears to be a misinterpretation of Aratus, *Ph*. 316 *οὐ μάλα πολλός*, which refers to the meagre spatial extent, not the lacklustre appearance, of the Dolphin. The misunderstanding may have come in through a misreading of the scholia, which says ad loc. *οὐ μάλα πολλός: σφόδρα λαμπρός* (although it is conceivable that, if the scholia are not Hellenistic but later, the scholiast is here countering a preconception which has crept in among readers of the passage in Greek who have previously read Cicero's Latin). Cicero has here opted for his characteristic mode of describing constellations by their optical brightness, rather than by the technique of precise celestial mapping favoured by Aratus himself.

Aratea 446, *hanc illi tribuunt poenam Nereides almae*, is more general than *Phaenomena* 657–8, where Aratus names the Nereids involved as Doris and Panope. Soubiran (n. 4) ad loc. believes the *Aratea* passage to be drawing on the scholia: *ἐπειδὴ ἐκείνη, ἡ Κασσιέπεια, οὐκ ἔμελλεν ἰσώσασθαι καὶ περὶ κάλλους ἐναντιωθῆναι ταῖς Νηρῇσιν ἄνευ μεγάλων τιμωριῶν καὶ ζημιῶν· διὰ γὰρ τὴν αἰτίαν ταύτην καὶ ὁ Ποσειδῶν τὸ κῆτος ἔπεμψεν αὐτῇ τῇ χώραι, ὡς ἀναγκασθῆναι θοίην αὐτῷ προθεῖναι τὴν Ἀνδρομέδαν.*

[31] Soubiran (n. 4), 73–4 speaks of 'L'ombre d' Ennius'.

[32] Stoic exegesis of Aratus (specifically the commentary by the second century B.C. Stoic Boethus of Sidon) may have influenced Cicero's translation of Aratus (see Martin [n. 30], 19).

Nature: 'si igitur meliora sunt ea quae natura quam illa quae arte perfecta sunt, nec ars efficit quicquam sine ratione, ne natura quidem rationis expers est habenda' ('If, then, nature's attainments transcend those achieved by human design, and if human skill achieves nothing without the application of reason, we must grant that nature too is not deviod of reason'). At *D.N.D.* 2.97, a similar comparison between the universe and a model globe is made, emphasizing the role of the heavenly bodies as evidence of *ratio*:

Quis enim hunc hominem dixerit qui, cum tam certos caeli motus tam ratos astrorum ordines tamque inter se omnia conexa et apta viderit, neget in his ullam inesse rationem, eaque casu fieri dicat quae quanto consilio gerantur nullo consilio adsequi possumus? An, cum machinatione quadam moveri aliquid videmus, ut sphaeram ut horas ut alia permulta, non dubitamus quin illa opera sint rationis, cum autem impetum caeli cum admirabili celeritate moveri vertique videamus constantissime conficientem vicissitudines anniversarias cum summa salute et conservatione rerum omnium, dubitamus quin ea non solum ratione fiant sed etiam excellenti divinaque ratione?

Who would regard a human being as worthy of the name, if upon observing the fixed movements of heaven, the prescribed disposition of the stars, and the conjunction and interrelation of all of creation, he denied the existence of rationality in all these, and claimed that chance was responsible for works created with a degree of wisdom such as our own wisdom fails totally to comprehend? When we observe that some object—an orrery, say, or a clock, or lots of other such things—is moved by some mechanism, we have no doubt that reason lies behind such devices; so when we note the thrust and remarkable speed with which the heavens revolve, completing with absolute regularity their yearly changes, and preserving the whole of creation in perfect safety, do we hesitate to acknowledge that this is achieved not merely by reason, but by reason which is pre-eminent and divine?

This takes Balbus' argument one step further: that the *ratio* evident in the world is of the best possible kind: divine.

At *D.N.D.* 2.98ff., the work of nature is elaborated upon, as evidence of Providence: 'licet enim iam remota subtilitate disputandi oculis quodam modo contemplari pulchritudinem rerum earum quas divina providentia dicimus constitutos' ('At this point we can abandon the refinements of argument, and concentrate our gaze, so to say, on the beauty of the things which we declare have been established by divine providence'). The *Aratea*, as quoted at 2.104ff., is a verbal aid to the process of contemplating the works of Providence. As Balbus quotes the poem, he adds a Stoic commentary, as at *D.N.D.* 2.110:

atque ita dimetata signa sunt ut in tantis discriptionibus divina sollertia appareat:
Et natos Geminos invises sub caput Arcti. . . .

Note how the constellations are so marked out that their spacious organisation indicates the divine genius:
Close to the Bear's head you can see the Twins. . . .

He rounds off his argument at 2.115 with a recapitulation of the principle of *ratio*, aimed particularly at Epicurean materialism:

haec omnis discriptio siderum atque hic tantus caeli **ornatus** ex corporibus huc et illuc casu et temere cursantibus potuisse effici cuiquam sano videri potest? an vero alia quae natura mentis et rationis expers haec efficere potuit? quae non modo ut fierent ratione eguerunt sed intellegi qualia sint sine summa ratione non possunt.

Can any sane person imagine that this overall pattern of constellations, this massive embellishment of the heavens, can have been the outcome of atoms careering at random in various

chance directions? Or that any other natural process devoid of intelligence or reason could have achieved a creation which not merely required the use of reason, but whose working cannot be understood without its utmost application?

In addition, it is only because mankind is endowed with *ratio* that he can understand the world's *ratio*. This is also why, at 153, man has the capacity to regulate time, through his understanding of the 'Newtonian clock' of the heavens.

In the *D.N.D.*, astronomy becomes a rhetorical figure, parallel to the celestial globes described at 2.87–8, designed to illustrate the order of the world.[33] It can be argued that the seed of this idea may already exist in the *Aratea* itself, or at the very least, that something about Cicero's translation of Aratus' Stoic poem made it an ideal vehicle for later Stoic reinterpretation.[34] The very same analogy as that seen above, between human art and the order of the universe, is encapsulated in a metaphor in the *Aratea*:

ut nemo, cui sancta manu doctissima Pallas
sollertem ipsa dedit fabricae **rationibus** artem,
tam tornare cate contortos possiet orbis
quam sunt in caelo divino numine flexi,
terram cingentes, **ornantes** lumine mundum . . .

(*Aratea* 302–306)

. . . So that not even one to whom most learned holy Pallas herself gave with her hand an art skilled in the ways of workmanship, could turn so cleverly the interlocked circles as they are flexed in the heavens by divine will, girding the earth, embellishing the world with light . . .

Although Cicero is talking specifically about the celestial circles here, rather than the entire order of the heavenly bodies, as in *D.N.D.* 2, the analogy is the same: no craftsman, in imitating the form of the universe, can create a universe as fine as that created by the art of nature (*ars naturae*, 2.83). This metaphor of course goes back to a similar figure in the Aratean original, but it is easy to see how Cicero has embellished Aratus, emphasizing in particular the artistic imagery. Compare the Aratean equivalent:

οὔ κεν Ἀθηναίης χειρῶν δεδιδαγμένος ἀνὴρ
ἄλλῃ κολλήσαιτο κυλινδόμενα τροχάλεια
τοῖά τε καὶ τόσα πάντα περὶ σφαιρηδὸν ἑλίσσων,
ὡς τά γ' ἐναιθέρια πλαγίῳ συναρηρότα κύκλῳ
ἐξ ἠοῦς ἐπὶ νύκτα διώκεται ἤματα πάντα.

(*Phaenomena* 529–33)

In no other way would a man trained in the craftsmanship of Athene weld together revolving wheels in such a pattern and of such a size, rounding off the whole like a sphere, than the system of celestial circles, which, united by the oblique circle, speed from dawn to nightfall all the time.

The point of greatest embellishment in Cicero is the artistic imagery of the simile. In Aratus, the main artistic metaphors are two: *κολλήσαιτο* in 530, and *συναρηρότα*, 'fastened together', in 532. *κολλάω* is used in Pindar, *Nem.* 7.78 of a golden crown inlaid with ivory. In Pindar the expression may already be a metaphor for poetry: 'The Muse is welding (*κολλᾷ*) gold and ivory white (in a wreath)'. Aratus may use this

[33] For the details of this argument, see E. R. Gee, '*Parva figura poli*: Ovid's Vestalia (*Fasti* 6.249–468) and the *Phaenomena* of Aratus', *PCPhS* 43 (1997), 21–40.

[34] On the Stoic nature of Aratus' *Phaenomena*, see E. R. Gee, *Ovid, Aratus and Augustus: Astronomy in Ovid's* Fasti (Cambridge, 2000), ch. 3.

particular verb to draw our attention to the art of words as well as the visual art being (hypothetically) described.[35]

Practically the whole of Cicero, *Aratea* 303, *sollertem . . . artem* is an addition to Aratus. Note particularly *sollertia*, which later becomes a characteristic of *Natura* in *D.N.D.* 2.110,[36] and *ratio*, which is the key concept in Balbus' argument. The vocabulary which Cicero uses to frame his embellishment of Aratus in the *Aratea* is that which occurs in the analogy of *D.N.D.* 2. Note also *ornantes* in *Aratea* 306. Compare this with *ornatus* in 2.115. The decorative nature of the celestial circles in the heavens is part of the arrangement of the universe described by Balbus. The significance of the universe in both of Cicero's works is its beauty, and the evidence of Providence in its layout. In both works, the parallelism of human and divine art is the same, although what is spelled out in the *D.N.D.* is encapsulated in a metaphor in the *Aratea* (as you would expect in poetry). While the Stoic concepts expounded in the *D.N.D.* may come directly from Posidonius and others, the means of expression of these ideas may be that already developed by Cicero in his translation of Aratus' poem. Either Cicero was consciously developing a vocabulary to express the concepts of Stoicism as early as *c.* 89, or the Stoic nature of Aratus already made the *Phaenomena*, and Cicero's translation of it, an ideal vehicle for Stoic argument.

We have seen that astronomy, and specifically the *Aratea*, can act in *D.N.D*. 2 as a figure for the *ordo* and *ratio* of the universe. At the same time, this particular example of it, as quoted at 2.104–15, illustrates Cicero's capacity to order language. There is an analogy lurking behind the way the *Aratea* is used in the *D.N.D.*: as the order of the stars is evidence of divine *ratio* being exercised in the arrangement of the world, so the arrangement of words in poetry is evidence of human *ratio* at work. Recognition that *ratio* lies behind human works of art enables us to perceive divine *ratio* at work in the world. The link between the two arms of the analogy—divine macrocosm and human microcosm—is particularly cogent in *D.N.D.* 2, since the arrangement of the stars is the subject of the work of human art used to illustrate it: mimesis not just of the *technique* of ordering the world (using *ratio*), but also of its *content*.

The analogy can be reversed, so that the order of the universe becomes a figure for the arrangement of words. This is what Cicero had done at *De Oratore* 3.178–9:

sed ut in plerisque rebus incredibiliter hoc natura est ipsa **fabricata**, sic in oratione, ut ea, quae maximam utilitatem in se continerent plurimum eadem haberent vel dignitatis vel saepe etiam venustatis. incolumitatis ac salutis omnium causa videmus hunc statum esse huius totius mundi atque naturae, rotundum ut caelum terraque ut media sit eaque sua vi nutuque teneatur, sol ut eam circum feratur, ut accedat ad brumale signum et inde sensim ascendat in diversam partem; ut luna accessu et recessu [suo] solis lumen accipiat; ut eadem spatia quinque stellae dispari motu cursuque conficiant. haec tantam habent vim paulum ut immutata cohaerere non possint, tantam pulchritudinem, ut nulla species ne excogitari quidem possit ornatior. referte nunc animum ad hominum vel etiam ceterarum animantium **formam et figuram**. nullam partem corporis sine aliqua necessitate adfictam totamque formam quasi perfectam reperietis arte, non casu.

But in oratory, as in most matters, nature itself has contrived that things possessing the greatest usefulness have also the most dignity and often the most beauty as well. For the sake of everything's safety and well-being, we see that the state of our world and of its nature is such that the heaven is rounded, with the earth at its centre, and maintained by the force of its own inclination; that the sun is carried round it, so as to reach the winter solstice and then gradually

[35] For a slightly different interpretation, see Kidd (n. 20), ad loc.

[36] = 2.81 *cuius (naturae)* ***sollertiam*** *nulla ars, nulla manus, nemo opifex consequi possit imitando*.

to climb into the opposite quarter; that the moon receives the sun's light as it advances and withdraws; that five planets accomplish the same courses with a different movement and speed. The whole has such great power that with a little change it cannot hold together, such great beauty that no more decorative appearance can be even imagined. Now turn your minds back to the form and shape of human beings or even of other living things: you will find that no part of their bodies has been added without some essential purpose, and that their whole form has been as it were made perfect by art, not by accident.

Here, instead of the art of words acting as an analogy for the art of the world, as in *D.N.D.* 2, the structure of the world is likened to structure in oratory. The simile Cicero uses—*sed ut in plerisque rebus incredibiliter hoc natura est ipsa* ***fabricata***, *sic in oratione*—is not just a comparison but denotes a genuine similitude between oratory and the world, both founded on the same principle of rationality.

In Book 3 of the *De Oratore*, as in *D.N.D.* 2, where a model sphere and Cicero's poem are parallel ways of copying in works of art the order of the universe, attention is drawn to the parallelism between verbal and visual art. At 3.100, Cicero uses the imagery of painting to describe the decorative quality of words, poetry as well as oratory: *quamvis claris sit coloribus picta vel poesis vel oratio* . . . At 3.177, an orator uses words *sicut mollissimam ceram ad nostrum arbitrium formamus et fingimus*. Using the *Aratea* as a startng point, we can more easily see the connection between the layout of the physical world and the structure of oratory at *De Oratore* 3.178–9: both are works of art. Consider the passage on the naming of stars:

exinde exiguae tenui cum lumine multae
inter Pistricem fusae sparsaeque videntur
atque Gubernaclum stellae, quas contegit omnis
formidans acrem morsum Lepus: his neque nomen
nec **formam** veteres certam statuisse videntur.
nam quae sideribus claris **natura polivit**
et vario **pinxit** distinguens lumine **formas**,
haec ille astrorum custos **ratione** notavit
signaque dignavit caelestia nomine vero;
has autem quae sunt parvo cum lumine fusae,
consimili specie stellas parilique nitore,
non potuit nobis nota clarare **figura**.

(*Aratea* 155–66)

Further on, many small stars of slender radiance are seen, poured and splashed between the Sea-monster and the Helm of Argo, all of which the Hare, afraid of the Dog's fierce bite, outshines: to these stars those who went before us do not seem to have assigned name or certain form. For that keeper of the stars noted in a logical fashion and graced with a true name those constellations which Nature sculpted out of bright stars and painted, picking out their shapes with vari-coloured light; but as far as these ones go, which are scattered about with not much brightness, all the same in appearance and with similar magnitude, he could not sort them out for us into recognisable figures.

In this passage on the naming of the stars, Cicero seems to lace his description of verbal activity with artistic metaphors, as though the person naming the stars is also creating ('figuring') them: the form of the universe is being created, as though it were a visual work of art, but by words. An analogy between visual art and verbal naming is also implied in the Aratean original of the passage on the naming of stars:

οἱ δ᾽ ὀλίγῳ μέτρῳ ὀλίγῃ δ᾽ ἐγκείμενοι αἴγλῃ
μεσσόθι πηδαλίου καὶ Κήτεος εἱλίσσονται,
γλαυκοῦ πεπτηῶτες ὑπὸ πλευρῇσι Λαγωοῦ,
νώνυμοι· οὐ γὰρ τοί γε τετυγμένου εἰδώλοιο

βεβλέαται μελέεσσιν ἐοικότες, οἷά τε πολλὰ
ἑξείης στιχόωντα παρέρχεται αὐτὰ κέλευθα
ἀνομένων ἐτέων, τά τις ἀνδρῶν οὐκέτ' ἐόντων
ἐφράσατ' ἠδ' ἐνόησεν ἅπαντ' ὀνομαστὶ καλέσσαι
ἤλιθα μορφώσας· οὐ γάρ κ' ἐδυνήσατο πάντων
οἰόθι κεκριμένων ὄνομ' εἰπεῖν οὐδὲ δαῆναι.
πολλοὶ γὰρ πάντῃ, πολέων δ' ἐπὶ ἶσα πέλονται
μέτρα τε καὶ χροιή, πάντες γε μὲν ἀμφιέλικτοι·
τῷ καὶ ὁμηγερέας οἱ ἐείσατο ποιήσασθαι
ἀστέρας, ὄφρ' ἐπιτὰξ ἄλλῳ παρακείμενος ἄλλος
εἴδεα σημαίνοιεν· ἄφαρ δ' ὀνομάστ' ἐγένοντο
ἄστρα . . .

(*Phaenomena* 367–82)

Other stars covering a small area, and inset with slight brilliance, circle between Argo's steering-oar and the Monster, lying below the flanks of the grey Hare, without a name; they are not cast in any resemblance to the body of a well-defined figure, like the many that pass in regular ranks along the same paths as the years complete themselves, the constellations that one of the men who are no more devised and contrived to call by names, grouping them in compact shapes: he could not, of course, have named or identified all the stars taken individually, because there are so many all over the sky, and many alike in magnitude and colour, while all have a circling movement; therefore he decided to make the stars into groups, so that different stars arranged together in order could represent figures; and thereupon the named constellations were created . . .

As we have seen him do before, Cicero embellishes the text of Aratus. In this case also he emphasizes the imagery of art, making clearer the Aratean metaphors. Cicero conveys the idea of art, implicit in Aratus' participle μορφώσας, with *polivit* and *pinxit*, turning Nature into the artisan, but leaving *ille astrorum custos* to exercise his *ratio* (line 162), slightly changing the emphasis of Aratus. The fact that he here makes Nature the artist anticipates his portrait of *Natura* in the *D.N.D*. It may also anticipate the analogy in *De Oratore* 3.178–9, between the role of Nature in the world and the role of the orator in verbal arrangement.

fabricata in *De Oratore* 3.178 is a similar artistic metaphor to *fabricae* in *Aratea* 303. Note also *forma* in *Aratea* 159 and 166, and *figura* in 166. An appropriate parallel for the orator's art is *forma* and *figura* in the natural (in this case biological) world, as we see it at 3.179.[37] *ornatior* in 3.178 may recall *ornantes* in *Aratea* 306: the idea of both decoration and order is present in both. By implication, in 3.178–9, the art of words requires the same qualities as evident in the arrangement of the natural world: *forma*, *figura*, and a *fabricator*.

At *Timaeus* 3.8 (his 'translation' of Plato, also written in 45 B.C.), Cicero intimates that there is a close relationship between words and the world: 'omni orationi cum iis rebus, de quibus explicat, videtur esse cognatio' ('There seems to be a kinship between all discourse and the things it explains'). The idea of kinship between discourse and the world it describes is helpful in thinking about the *Aratea*: Cicero's ordering of words in the *Aratea* describes, and in a sense *creates*, the *kosmos*. The role of the poet and budding orator in composing the poem is like the role of *Natura* in ordering the stars.

This might be why the stars can take on different roles in the Ciceronian *oeuvre*: in the *Aratea* they are figures in a firmament arranged by a divine artist, with whom Cicero as poet may (implicitly) identify; in the *D.N.D.* they (and the *Aratea*) are co-opted to act as an illustration of the activity of divine *ratio*; in the *De Oratore* the

[37] *forma* can be grammatical 'form', as at Varro, *L.L.* 9.55, *formas vocabulorum*. There is also the expression *figura orationis*, the style of oratory, as at Cicero, *De Oratore* 3.212.

system of the universe is a metaphor for well-constructed discourse, described in terms recalling the Naming of the Stars in the *Aratea*. The *De Oratore* can help us to see the figure of Cicero the orator already present in the *Aratea*; the *Aratea*, in turn, helps us to see the force of the metaphor in the *De Oratore*. Study of the *Aratea* helps us see the genesis of the connection between the universe, poetry and oratory in Ciceronian thought.

In none of these contexts is technical accuracy important: the status of the stars as verbal art is. This might also be why the Aratean stars were retained in poetry and philosophy after the Julian reform: their artistic value transcended temporality. The fourth-century astrological writer Firmicus Maternus brackets together Aratus and two of his Roman translators, Cicero and Germanicus (Caesar) as follows:

Zodiacum circulum . . . XII possident signa. In horum signorum lateribus aliae adhaerent stellae, sed quae numquam erratico cursu assignata sibimet deserant loca, sed tradita sibi spatia possidentes, currente mundo inmutabili semper agitatione volvuntur. Hae in vicinis signorum regionibus collocatae, cum XII signis oriuntur et cum ipsis occidunt rursus, inmutatum semper cursus sui ordinem reservantes. Sed his stellis nomina veterum fabularum apposuit antiquitas. Executus est etiam horum numerum siderum Graece Aratus poeta dissertissimus, Latine vero Caesar et decus eloquentiae Tullius. Sed hi nomina ipsarum et ortus, non etiam auctoritatem apotelesmatum ediderunt, ut mihi videatur haec non aliqua astrologiae scientia, sed poetica elatos licentia docilis sermonis eos studio protulisse.

The circle of the zodiac . . . has twelve signs. To the sides of these signs cling other stars. But they never desert their own path in an erratic course but hold space assigned to them and turn always with the immutable revolution of the universe. These are located in the regions bordering on the signs [of the Zodiac], rise with the twelve and set with them, keeping always an unchanging course. To these stars antiquity gave names from fables. In Greek the most learned poet Aratus traced the number of these stars and in Latin, Caesar and Tullius, the model of eloquence. These men published the names of the constellations and their risings but not the significance for forecasting [horoscopes], so it seems to me that not the science of astrology but poetic licence inspired them with enthusiasm for learned discourse. (*Math*. 8.5.2–3)[38]

According to Firmicus, the characteristic these writers have in common is not astronomical know-how, but *poetica licentia*. The stars and poetry go together for the Romans. Talking about aspects of the παιδεία of the orator (cf. *Inst. Orat.* 1.10.1), Quintilian says that the student cannot understand the poets without some knowledge of the stars: 'nec, si rationem siderum ignoret, poetas intelligat, qui (ut alia omittam) totiens ortu occasuque signorum in declarandis temporibus utantur' ('Nor, if he does not understand the principle of the stars, can he understand the poets, who (to say the least) very often use the rising and setting of the signs in time differentiation', *Inst. Orat.* 1.4.4). As well as this (perhaps this is the force of Quintilian's *ut alia omittam*), the stars can become an end in themselves, exploited for their decorative or recherché nature. For Cicero, Aratus himself is a good example of the primacy of words. Like his Hellenistic counterpart Nicander, he was a specialist in words, not in stars, as Cicero says at *De Oratore* 1.69; and in the same way an orator can successfully expound a strange subject using his eloquence:

etenim si constat inter doctos, hominem ignarum astrologiae **ornatissimis** atque optimis versibus Aratum de caelo stellisque dixisse; si de rebus rusticis hominem ab agro remotissimum

[38] Translation taken from J. R. Bram, *Ancient Astrology, Theory and Practice: Matheseos Libri VIII, by Firmicus Maternus* (Park Ridge, NJ, 1975), modified. Cf. Cicero, *Rep*. 1.22.

Nicandrum Colophonium poetica quadam facultate, non rustica, scripsisse praeclare, quid est cur non orator de rebus eis eloquentissime dicat, quas ad certam causam tempusque cognorit?

And indeed it is agreed among learned men that a man ignorant of astrology, Aratus, spoke about the heaven and the stars in most elegant and excellent poetry; agreed too that a man very far removed from agriculture, Nicander of Colophon, wrote about country matters with a certain ability as a poet and not as a countryman, and did so with distinction: what reason is there why an orator should not speak most eloquently about those things of which he has acquired knowledge for a particular case or occasion?

A poet is much like an orator, Cicero continues, in that he is a technical amateur but a master word-smith: 'est enim finitimus oratori poeta, numeris astrictior paulo, verborum autem licentia liberior, multis vero **ornandi** generibus socius ac paene par' ('The poet is in fact closer to the orator, a little more restricted in his rhythms but with greater freedom in the words he may use; in many types of ornamental language however he is his companion and almost his equal', *De Oratore* 1.70).

The idea of Aratus as a master word-smith and amateur astronomer is echoed by Cicero in another of his philosophical works. In *Republic* 1.22, the speaker, Gallus, mentions the poet as having borrowed the arrangement of the heavens from Eudoxus (the Greek astronomer, a pupil of Plato): 'cuius omnem ornatum et descriptionem sumptam ab Eudoxo multis annis post non astrologiae scientia, sed poetica quadam facultate versibus Aratum extulisse'. Here the activity of Aratus is described using the same phrase as was applied to Nicander in *De Oratore* 1.69, *poetica quadam facultate*; the point is that both poets employ technical subject matter in the creation of felicitous verse, and in this Aratus, like Nicander, is a supreme Alexandrian. Here Aratus is said to have lifted the whole layout (*ornatus,* perhaps best translated 'decorative arrangement') of the universe from Eudoxus; at *De Oratore* 1.69, Cicero says Aratus described the universe ***ornatissimis*** *atque optimis versibus*; in 1.70, the poet is the ally of the orator in the many kinds of ornament he uses, *multis vero* ***ornandi*** *generibus socius*. The arrangement (*ornatus*) of the universe which he describes is mirrored by the *ornatus* (beauty, accomplishment) of his verse, which in turn makes him, in Cicero's eyes, the relative of the orator, whose concern is also adornment. In his descriptions of Aratus in terms of the kinship between poet and orator, Cicero may be thinking of himself, the Roman Aratus and budding orator. Poet and orator meet in Cicero.

As a reader of Aratus, Cicero must in the first instance have gained pleasure from the decorative aspects of the *Phaenomena*: its word-play, acrostics, and games with Homer. He showed his approval of Aratus' poem, and sought to emulate its learned technique by translating Aratus in *c.* 89 B.C.; in the 50s B.C., writing the *De Oratore*, he sees the value of Aratus in linking words as an art form with the divine order of the world. In 45 he co-opts his translation of Aratus to the Stoic argument from design, the design of words mirroring the design of the world.

The capacity of words to act as a figure for the *ordo* and *ratio* of the world is already implicit in the obsession with the decorative in the *Aratea* of 89. It is already a Stoic poem, designed to illustrate the *ordo* and *ratio* of the universe; the *D.N.D.* takes this one step further, and makes it an illustration of the art of nature: a world of words. Aratus can be tailored to fit each context because of the status of the *Phaenomena* as supreme verbal art.

We should not find it surprising that words are primary in Cicero. But perhaps this is already inherent in his Stoic source, which begins:

ἐκ Διὸς ἀρχώμεσθα, τὸν οὐδέποτ' ἄνδρες ἐῶμεν
ἄρρητον.

Let us begin with Zeus, whom we men never leave unspoken.

The *Phaenomena* is fundamentally about speaking as an expression of the Providence of Zeus.

Finally, the primacy of words becomes for Cicero a philosophical position, one that enables him to articulate his own cultural location. Translation of Aratus is a good metaphor for the transfer of knowledge from Greece to Rome. The *Aratea* is also an apt forerunner of Cicero's philosophical works, which are all set in a narrative of transfer from Greece to Rome. In addition, philosophy, oratory, and cultural position are linked. Cicero is the new or updated Plato, a follower of the New Academy, which is sympathetic (unlike Plato) to rhetoric: 'si illam praeclaram et eximiam speciem oratoris perfecti et pulchritudinem adamastis, aut vobis haec Carneadia aut illa Aristotelia vis comprehendenda est' ('If you have found love for that glorious and supreme ideal of the perfect orator, that beauty, you must embrace either this method of Carneades or that of Aristotle', *De Oratore* 3.71). At 3.56–74, Cicero argues for the primacy of oratory over philosophy, since it is useless being a brilliant philosopher if you cannot express yourself adequately in argument. This is put into action at the beginning of his *Timaeus*, where, far from translating Plato verbatim, Cicero puts his Carneadean cards on the table when he sets the scene for his dialogue with the vignette of himself and the astrologer Publius Nigidius Figulus discoursing *Carneadeo more ac modo*.

At *De Oratore* 3.56, the history of oratory, as well as of philosophy, has already been set in a narrative of the relationship of Rome with Greece: 'hanc, inquam, cogitandi pronuntiandique rationem vimque dicendi veteres Graeci sapientiam nominabant; hinc illi Lycurgi, hinc Pittaci, hinc Solones atque ab hac similitudine Coruncanii nostri, Fabricii, Catones, Scipiones fuerunt' ('This method of formulating and enunciating thought, this faculty of speaking, I say, was named wisdom by the ancient Greeks; from it came those famous men like Lycurgus, like Pittacus and like Solon and in their likeness our own Coruncanii, Fabricii, Catos and Scipios.'). Cicero is leaving the reader to complete the list, with Cicero himself perhaps, the heir of the Greek orators. Not for nothing did Plutarch later pair his life of Cicero with that of Demosthenes, and have Cicero's teacher of rhetoric in Rhodes, Apollonius son of Molon, exclaim:

Σὲ μέν, ὦ Κικέρων, ἐπαινῶ καὶ θαυμάζω, τῆς δὲ Ἑλλάδος οἰκτείρω τὴν τύχην, ὁρῶν, ἃ μόνα τῶν καλῶν ἡμῖν ὑπελείπετο, καὶ ταῦτα Ῥωμαίοις διὰ σοῦ προσγενόμενα, παιδείαν καὶ λόγον.

You, Cicero, I praise and admire; but I pity Greece her sad fortune when I see that through you the only glories which were left to us, culture and eloquence, belong to the Romans as well.
(Plutarch, *Cicero* 4.5)

The narrative of the transfer of knowledge from the Greek to the Roman world is encapsulated in Cicero's *oeuvre*. The notion of cultural translocation articulated piecemeal in the philosophical and rhetorical works we have looked at is also implicit in Cicero's early translation of Aratus. This is appropriate, since at *Republic* 1.56 it is said that Aratus' *exordium* makes the best beginning for Roman discourse on cosmology, ethics and politics: *imitemur ergo Aratum, qui magnis de rebus dicere exordiens a Iove incipiendum putat*. Aratus fronts Cicero's later discourses on cosmology and

government. Cicero here (and in the *Somnium Scipionis* of *Rep*. 6) creates the context in which the marriage of Greek cosmology with Roman politics can flourish, the later context for Anchises' discourse in *Aeneid* 6, that quintessential expression of Roman government in accordance with the laws of Providence.[39]

This takes us well beyond the purely poetic value of Aratus and of Cicero's translation of his Greek original. The *Aratea* shows us a peculiarly Roman cultural phenomenon in embryonic form, and is the antecedent of texts as diverse as the poems of the neoterics and the philosophical works of Cicero, all of which evince a central concern with Greece as part of Roman identity.

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[39] This concept flourishes under Augustus: Horace in *Odes* 1.12.15ff. can use Aratus' exordium to express Augustan *dominatio* of the *orbis terrarum*; Germanicus in his *Phaenomena* replaces Aratus' Zeus with his imperial dedicatee. If one is interested in the relationship of the *Aratea* to Ciceronian philosophy, one must needs also be interested in the relationship of the *Aratea* to Ciceronian politics. Indeed, cosmology and politics are already connected in *D.N.D.* 2, through the metaphors of government which are applied to the activity of Nature, as at 2.86: *quodsi mundi partes natura* ***administrantur****, necesse est mundum ipsum natura* ***administrari****.* However, this area lies beyond the scope of the present paper.