

## THE UNIQUENESS OF THE WORD 'MOLLIPEDES' IN CICERO'S PROGNOSTICA IV.10-11

Author: *Barney McCULLAGH*

University of Cambridge, UK

### Abstract

The article uses the word 'mollipedes' as a point of repair in its attempt to re-examine the didactic poetry of Aratus and Cicero. The three title words used by the authors, namely Phaenomena, Diosemeia, and Prognostica, will be found to have the etymological capacity to suggest that the writers' true agenda relates not to inexplicable portents of the weather but to the scientific causes of natural phenomena. However these etymologies also suggest that the rhetoric by which this new discourse is accessed will be oracular. That is, in complete contradistinction to what appears to be the case, the arguments of these authors will prove to be sibylline, while their material will prove to be scientific. The brunt of the article will consist in detailed analyses of specific passages from Cicero's Prognostica and Aratus' Diosemeia. It is hoped these analyses will show that an array of subversive literary techniques are laid by these authors at the service of an agenda that seeks to convey to posterity the truth about the way the ancient world was perceived by its literary elite. In the final analysis Cicero's word 'mollipedes' proved to have a fatal flaw which rendered it unattractive to his successors. However for our purposes it will serve as a totemic indicator of the literary programme Cicero and Aratus bequeathed to the world. Had Cicero not used the word, the discovery of our thread would have been virtually impossible.

**Keywords:** Phaenomena, Diosemeia, Prognostica, Cicero, Aratus, Phatne, mollipedes, oracular, etymology, metre, empirical, wind, rain, swallows, frogs, cows

### Introduction:

'Mollipedesque boves spectantes lumina caeli / naribus umiferum duxere ex aere sucum'

'The soft-footed cows, watching the stars of the sky, drew through their nostrils the damp-bearing essence from the air'.

This article sets out to examine a text by homing in upon a single word. Whilst our discussions will range over several aspects of Cicero's Prognostica and Aratus' Phaenomena, the word in question, 'mollipedes' ('soft-footed'), will serve as our destination. *En route* our intention is to demonstrate that both texts constitute a network of signs which signal to each other in myriad ways.

### The meaning of the word 'Prognostica':

Under the Greek title of Prognostica Cicero purports to translate the Diosemeia of Aratus from Greek into Latin. Diosemeia ('weather signs') is the title of the second

half of Aratus' astronomical text, the *Phaenomena*<sup>1</sup>. Since Cicero's title-word 'Prognostica' is itself often translated as 'weather-signs'<sup>2</sup>, one wonders why he did not simply adopt Aratus' title-word, 'Diosemeia', given that, in using the word 'prognostica', Cicero has merely substituted one Greek word for another<sup>3</sup>. It must be the case that the nuances of the word 'prognostica' held some particular significance for Cicero. We should therefore examine the word more closely. To begin with, a surviving work of Hippocrates' is entitled 'τό προγνωστικόν' which will mean 'the art of medical prognostication'<sup>4</sup>. Medical prognostication consists in applying to particular cases the insights gained from the empirical observation of the progression of an illness<sup>5</sup>. In fact Hippocrates uses the verb 'προγιγνώσκων' of 'predicting the past' on the basis of the patient's presenting symptoms. Thus 'prognostica' may not always have an application to the future. On this basis, an acceptable translation of 'προγνωστικόν' might be 'predictable pathology'. Moving on to the etymological components of the word, the suffix '-ικόν' suggests 'that which is capable of' or 'that which is susceptible to'. Meanwhile the verbal stem to which such a suffix is appended will not infrequently be understood passively<sup>6</sup>. Thus, in an etymological sense 'προγνωστικό' ('prognostica') could be thought to mean 'things which are susceptible to being understood [-γνωστ-] in advance [προ-]'. Meanwhile, in our search for parallels for 'τό προγνωστικό', we also note the phrase 'τα κονιάτικα' ('stuccoed decoration'). This adjectival noun derives from the verb 'κονιάω' ('I plaster with stucco'). On this model, 'τό προγνωστικό' could be interpreted simply as 'things understood in advance'.

### The Context of the Prognostica: De Divinatione:

These 'scientific' interpretations of the title word *Prognostica* should be set alongside Cicero's thoroughgoing scepticism vis-à-vis oracles, omens, and 'praesensiones' ('presentiments') in his *De Divinatione*, the work from which almost all the surviving fragments of his *Prognostica* derive, and a work which must (belatedly) contextualise Cicero's literary agenda vis-à-vis the *Prognostica*<sup>7</sup>. Cicero's scepticism towards 'praesensiones' emerges when he flatly denies Cratippus' claim that on countless occasions 'praesensiones' are proved true without the assistance of luck<sup>8</sup>. Meanwhile Quintus, Cicero's brother and interlocutor, characterises the *Prognostica* as being 'stuffed full of presentiments' ('atque his rerum praesensionibus *Prognostica* tua

<sup>1</sup> See further Kidd (1997) p. 425

<sup>2</sup> See Lewis (1985) s. v. 'Prognostica'

<sup>3</sup> Cicero often retains the Greek word for a constellation in his translation of the *Phaenomena* (e.g. 'Chelae' XXXIII.3). See Soubiran ed. (2002) p.166

<sup>4</sup> Compare 'τό όνειροπολικόν' = 'the art of interpreting dreams'

<sup>5</sup> Hippocrates *Prognosticon* 1: 'προγιγνώσκων γόρ και προλέγων παρό τοίσι νοσέουσι τά τε παρεόντα και τό προγεγονότα και τό μέλλοντα όκόσα τε παραλείπουσιν οι όσθενέοντες έκδιηγούμενος, πιστεύοιτ' όν μύλλον γιγνώσκειν τό τόν νοσεόντων πρήγματα'. 'Foreseeing' the past is particularly in Hippocrates' mind when he suggests the best doctors are those who gain the trust of their patients.

<sup>6</sup> 'προσεκτικός' = 'attentive' but also 'capable of retaining one's attention'; 'μεταβλητικός' = 'capable of causing change' but also 'susceptible to change'.

<sup>7</sup> For the date of the *Prognostica* see Soubiran (2002) pp.8-16

<sup>8</sup> *De Divinatione* 2.109: 'Adsumit ... Cratippus hoc modo: sunt autem innumerabiles praesensiones non fortuitae'. At ego dico nullam'.

referta sunt': 1.8). He goes on to claim that the lack of any scientific basis behind these 'presentiments' is no impediment to their efficacy<sup>9</sup>. In Quintus' view 'praesensiones' are almost always reliable. Cicero however takes issue with his brother for adducing examples from the *Prognostica* to support his thesis<sup>10</sup>. Cicero's grounds for this are that the subject matter of his poem had already been the object of scientific research. We learn that the Stoic Boëthus had investigated 'the causes of meteorological phenomena' ('prognosticorum causas')<sup>11</sup> along with the phenomena encountered 'at sea and in the sky' ('quae in mari caelove fierent') by following an empirical methodology<sup>12</sup>. Meanwhile Geminus informs us that the same Boëthus considered the causes of wind and rain were to be sought in nature itself<sup>13</sup>.

### The Empirical Prognostica:

Cicero does not deny the *Prognostica* is 'stuffed full' of untrustworthy presentiments. And it is hardly Quintus' fault that Cicero had chosen to translate a poem (the *Diosemeia*) that, on the face of it, seems to run counter to the spirit of Boëthus' work, work which Cicero, the scientific sceptic, clearly admired. Given that Cicero must have had Boëthus' arguments in front of him at whatever age he wrote the *Prognostica*, it is hard to imagine him ignoring their spirit of empiricism<sup>14</sup>. This brings us back to the sober, prosaically scientific interpretation of the word 'prognostica' we have observed above. In the context of Cicero's stance in the *De Divinatione*, this interpretation of the word 'prognostica' seems primed to allude rather to Boëthus' work than to 'praesensiones'<sup>15</sup>. That this is the case emerges most clearly from Geminus' observation that the fourth and last book of Boëthus' commentary on Aratus was dedicated to the *Diosemeia* and entitled 'τας προγνώσεις' which will convey a nuance of 'empirically-based predictions'<sup>16</sup>. Yet, whilst the etymological link that leads from Boëthus' 'προγνώσεις' to Cicero's 'προγνωστικό' suggests Cicero was deliberately situating himself within a line of literary descent from Boëthus, any empirical approach on Cicero's part seems hard to seek amidst the foreshadowing of meteorological phenomena by the particular behaviour of, for instance, millipedes.

<sup>9</sup> *De Divinatione* 1.8; 1.9: 'Quis igitur elicere causas praesensionum potest? ... Videmus haec signa numquam fere eminentia nec tamen cur ita fiat videmus'. Note that Quintus' 'signa' ('signs') are visible ones.

<sup>10</sup> *De Divinatione* 2.20

<sup>11</sup> Here 'prognostica' comes to mean by extension 'meteorological phenomena' just as 'praesensiones' comes to mean 'fulfilled portents' at 1.8. Discovering the causes of rain will lead to an understanding of the 'predictable pathology' of rain.

<sup>12</sup> *De Divinatione* 2.21: 'nam et prognosticorum causas persecuti sunt et Boëthus Stoicus, qui est a te nominatus, et noster etiam Posidonius; et, si causae non reperiantur istarum rerum, res tamen ipsae observari animadvertique potuerunt'; 1.8: 'video Boëthum Stoicum esse conatum, qui hactenus aliquid egit, ut earum rationem rerum explicaret, quae in mari caelove fierent'.

<sup>13</sup> Geminus *Astronomicus* 17.48.

<sup>14</sup> Boëthus was a second century B.C. contemporary of Hipparchus'.

<sup>15</sup> See further Kidd (1997) p.46

<sup>16</sup> Geminus *Astronomicus* 17.48. See further Kidd (1997) p.425. Cicero may be alluding both to his poem and to Boëthus' work when he uses the term 'prognostica' of 'meteorological phenomena' (*De Divinatione* 2.21).

Nevertheless, the empirical, Boëthan slant we have given to the word 'prognostica' can be accommodated closely to Cicero's over-arching title-word, 'Phaenomena'. For, 'things which can be foreseen on the basis of empirically-established signs or symptoms' ('prognostica') will also constitute (after the event) 'things that are proved to be such and such [by signs]' ('phaenomena')<sup>17</sup>. Thus rain may be known in advance to cause foot-rot in animals. At the same time the rain will be proved to have been torrential by the physical evidence of foot-rot. Since nothing can be 'proved' without evidence, it seems reasonable that the phrase 'by signs' be understood in this rendering of the word 'phaenomena'. Moreover we should underline the fact that these 'signs' will refer to 'empirical evidence' or 'symptoms' as in the Sophoclean passages on which we rely for this nuance of the word 'phaenomena'. Lastly, this version of the word 'phaenomena' prompts the thought that Aratus' *Diosemeia*, by virtue of constituting the second half of his 'Phaenomena', may also be concerned with the empirically-proven causes of natural phenomena.

Thus, ironically, an oblique, etymological approach to the word 'prognostica' has served to provisionally reconfigure the *Prognostica* as the title of a scientific work. By contrast, the hitherto standard approach to the text of the *Prognostica* gives the reader access to unscientific portents and omens, such as we also seem to find in the *Diosemeia*. At the same time however we must posit a close relationship between the Greek title of Aratus' *Diosemeia* and its purported translation as 'Prognostica'. In the Aratean context of Stoic philosophy, one possible etymology of 'dio/semēia' could be expressed by the circumlocution 'signs of the weather which constitute the observable basis of inference to the unobserved or unobservable'<sup>18</sup>. Here 'diosemeia' has reconfigured itself into the sort of title Hippocrates or the Stoic Boëthus might have chosen for his work. In other words, the word 'diosemeia' also takes its place within the scientific discourse we have observed in the words 'prognostica' and 'phaenomena'

### The Oracular Prognostica:

Cicero's title however has not parted company with signs of a less scientific nature. For the word 'prognostica' could also be defined as '*things* [not *people*] which are prescient, foreknowing'. This conjures up ancient oracles, the neuter plural evoking not so much Dodona, or Zeus, the incumbent of Dodona, but rather the oracular texts themselves. Meanwhile the word 'diosemeia' is able to realign itself with this discourse

<sup>17</sup> For this interpretation of 'phaenomena' see Sophocles *Ajax* 1020: 'δοῦλος λόγισιν ... φανείς' ('proved a slave by his words'); 1241: 'εἰ ... φανούμεθ' ἐκ Τεύκρου κακοί' ('if we be proved wicked because of Teucer'). Note how 'words' and 'Teucer' fulfil the role of the signs (= 'empirical evidence') that are integral to this interpretation of the word 'phaenomena'. See also Euripides *Electra* 578 where Electra has been addressing an elderly man in the presence of Orestes. The phrase 'Ὁ χρόνῳ φανείς' reads as a joint response to the old man's seniority and Orestes' fidelity ('oh you proved by the passage of time').

<sup>18</sup> LSJ s.v. 'σημεῖον' II.3b; see also 'διός / Διός' at Aratus 899 where 'the sky' must be the principal meaning given the punning adjective 'εὐδιόωντος' ('fair'). See also the pun on 'διός / Διός' at Aratus 964. See further Kidd (1997) on *Phaenomena* 899 and 964 pp.484 & 508. Note that the 'unobservable or unobserved' may be what has passed rather than what may be about to transpire. Empiricism begins from tracing events back to their cause by dint of observation. The next stage is to predict the event from the established cause

in its etymological meaning of ‘signs of the future *from Zeus*’<sup>19</sup>. Thus the two title-words ‘diosemeia’ and ‘prognostica’ find fresh common ground in a context of oracular foreknowledge. And the word ‘phaenomena’ is not slow to follow suit. In two different passages in Xenophon the gods are said to ‘disclose’ (‘φήνασι,’φαίνουσιν’) omens and dreams as well as the physical referent of the dream<sup>20</sup>. In the *Anabasis*, Xenophon’s men are trapped near an impassable ford with enemies both on the far bank of the river and to the rear. That night Xenophon dreams that fetters fall from his feet enabling him to ‘stride freely as far as he wished’(‘διαβαίνειν ὅποσον ἐβούλετο’). The verb ‘διαβαίνειν’ also means ‘to cross [a ford]’ however. Xenophon embraces the omen and acknowledges the gods’ assistance. Meanwhile Xenophon-the-writer has been playing on the meanings of ‘ὄπορία’ which means both [of Xenophon as leader]‘in difficulty’ (‘ἐν ... ὄποριᾷ’: 4.3.8) and ‘in a place with no ford or means of crossing’<sup>21</sup>. Thus ‘phaenomena’ may be interpreted as ‘things which are revealed or uncovered’ (that is, both the oracles themselves and their oracular meaning which is accessed through the sort of double meaning exemplified by ‘διαβαίνειν’)<sup>22</sup>.

<sup>19</sup> As though deriving from ‘Διός σημεῖα’. See Aristophanes *Acharnians* 170 for the word ‘διοσημία’ (‘diosemeia’) as ‘an omen from Zeus/the sky’. In fact one MS of Aratus (Neapol. II F 48) spells ‘diosemeia’ as ‘diosemeiai’ thereby showing the propinquity of the two words. See further Kidd (1997) p. 425. It is important to remember that ‘signs’ of the weather will lead to the production of ominous signs in the form of that weather itself (‘thunder, lightning, rain’). Aratus’ *Diosemeia* could reasonably be said to be full of such ominous forms of precipitation. Moreover in the *Acharnians*, the drop of drizzle received by Dicaeopolis, whilst an omen from Zeus, is in its turn a sign of rain to come (‘ante rorat quam pluit’: Varro *De Lingua Latina* 7.58). Signs will always lead to other signs.

<sup>20</sup> Xenophon *Anabasis* 4.3.13: ‘ἔκέλευε καὶ εὐχεσθαι τοῖς φήνασι θεοῖς τὰ τε ὄνειρα καὶ τὸν πόρον’; ‘he ordered them to pray to the gods who had revealed the dream[s] and the ford’. See also *Cyropedia* 6.4.13 and Sophocles *Oedipus Tyrannus* 725.

<sup>21</sup> See *Anabasis* 5.6.12. In the upshot there prove to be two fords of which the impassable one is used by Xenophon as a ruse to convince the enemy they are about to be surrounded (4.3.21). In this chapter of Xenophon we suggest there are unseen aspects of ‘ὄπορία’ which are subtextually active in the narrative. Thus a plurality of fords leads to confusion. One could posit ‘a plethora of fords’ (‘ὄ’ intensive + ‘πορος’) as a creative etymology of ‘ὄπορία’ which generates the ‘ὄπορία’ or ‘straits’ in which the enemy then find themselves’. The enemy escape their ‘ὄπορία’ by way of a ‘path’ (‘πορος’) leading away from the unfordable (‘ὄπορος’) ford (‘πορος’). There are literary-oracular undercurrents in Xenophon-the-writer’s text which counterpoint Xenophon-the-general’s literary-oracular resolution of the military impasse.

<sup>22</sup> The emperor Augustus feared attending to important business on the date of the ‘Nonae’. This we learn was due to the ‘δυσφημία’ (‘ill-omened language’) of the name (Suetonius *Life of Augustus* 92). The Greek word ‘δυσφημία’ hints at a Greek pun. Our view is that the word ‘Nonae’ would have been pronounced the same as the Greek ‘νῶν ἄ’ (= ‘woe for us both’). See Zenodotus *ad Iliad* 8.377 for the dual ‘νῶν’ as an accusative. The plural ‘us both’ could be interpreted as being aimed at both himself and his wife Livia. More likely Augustus will have taken it as a personal reference to his royal plurality (himself and Apollo). His last words, as quoted by Suetonius (99), especially if they are apocryphal, are evidence of his custom of using the royal plural (‘ἐπεὶ δὲ πάνυ καλῶς πέπαισται, δότε κρότον καὶ πάντες ἡμᾶς μετὸ χαρᾶς προπέμψατε’; ‘since the part has been played exceptionally well, do you all give a clap and send us forth from the stage [and ‘join our cortege’] with joy’). The division of the word Nonae into ‘Non ae’ followed by its transliteration into Greek is the stuff of ominous language. The Romans thought the name of the city of Epidamnum was comprised of the elements ‘ἐπί’ [transliterated as ‘epi’] meaning ‘towards’ and ‘damnum’ meaning ‘loss’ ‘damage’. Indeed the proximity of the notorious reefs of Ceraunia often made a journey ‘to Epidamnum’ [motion towards’ being expressed by the accusative] the equivalent of a journey ‘towards loss’ [Epi damnum]. This will have strengthened the view that the city’s name was an oracular warning from the gods. Once again the omen is obtained by the word being divided, this time with the prefix being transliterated as if from Greek and added to a Latin suffix. See Pliny *NH* 3.23: ‘Epidamnum colonia, propter inauspicatum nomen Dyrrachium appellata’. See also Pomponius Mela *Descriptio Orbis* 2.56:

Thus the three title words seem to enjoy, as it were, two different, and highly polarised, conjunctions in the night sky. On the basis of one conjunction, we may hope to uncover from the texts examples of oracular writing worthy of the riddles written on leaves by the Sibyl of Erythrae. On the other hand, we may also hope to find a vein of Stoic empiricism within the poem's observations on the natural world<sup>23</sup>.

### Two Allegories: Southern Stars and Signifying Signs:

If the 'Phaenomena' also treat of 'things that appear' then this must apply particularly to the night sky where stars are revealed as they rise above the horizon (Aratus 559-732)<sup>24</sup>. However if the Prognostica and Diosemeia treat of 'things instinct with oracular prescience' then the 'Phaenomena', as the over-arching title-word should be prompted into reconfiguring itself as much more than an indicator of stellar comings and goings<sup>25</sup>. In the context of the wider, astronomically-oriented Phaenomena, it seems reasonable to suggest that the oracular meanings of Diosemeia and Prognostica could be accommodated within a multifaceted Phaenomena poetics schema. On the one hand, there is the inherited text which remains as limpid and as permanently accessible as the never-setting Helice or Ursa Major ('phaenomena' = 'things which are manifest to the senses'). On the other there is a text which remains permanently invisible at the subtextual level but which counterpoints (or underlies) the text as we have it ('phaenomena' = 'things apparent to the mind's eye'). In this context Cicero and the ancients were well aware of the existence of a celestial south polar star which was invisible to them but which counterpointed their own star to the north<sup>26</sup>. Lastly, in the middle of these two polar opposites there are the interconnected 'signs' ('constellations') that, in setting and rising, mediate between these two worlds ('phaenomena' = 'things which come to light, appear'). Our task then is not to take the safe option and follow Ursa Major at all times. Rather we should use the signs as they

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'Epidamnos ante erat; Romani nomen mutaverunt quia, velut in damnum ituris, *omen* id visum est'. The fact that 'nomen' ('name') literally contained an 'omen' ('omen') is totemic of the Roman approach to words. See Plautus *Persae* 625: 'Nomen atque omen quantivis iam est preti'. Meanwhile the fact that 'Epidamnum' only coincidentally contains the meaning 'towards loss' will only have added to the force of its omen. For our purposes what matters is the fact that these redivisions of words effectively constitute creative etymologies. This in turn strongly suggests that the ancients were accustomed to etymologising words creatively as a way of extracting from the gods 'truth-speaking' oracular messages about the world around them ('ἔτυμολογία' / 'etymology' = 'truth-speaking'). This is related to the meaning of 'Prognostica' as 'things that are prescient'.

<sup>23</sup> Cicero's adherence to philosophical Scepticism does not debar him from adopting Stoic positions. In a revealing aside in the *Academica* (2.21) he calls himself a 'magnus ... opinator' ('a great holder of opinions'). He admits he is not the embodiment of the wise Sceptic, but rather an eclectic at heart ('eo fit ut errem et vager latius'; 'this [love of holding opinions] causes me to wander and stray rather widely').

<sup>24</sup> See e.g. the parapegma xviii Iudicia: 'prima die Aprilis Pliades - id est Vergilie - paulum *apparet*'.

<sup>25</sup> The two subtitles cast their 'oracularising' influence back over the main title. For example, the first words of the Diosemeia (733) are 'Οὐχ ὀράαις?' = 'Do you not see?' This makes us wonder about the beginning of the Phaenomena ('Ἐκ Διὸς ὀρχώμεσθα') which itself could be a question undermining the over-arching role of both Zeus and the 'Phaenomena' ('Are we to begin with Zeus?'). In fact the subversiveness of the question may be more thoroughgoing ('Are we to be ruled by Zeus [or 'by the sky']?') This in turn will have an influence upon our reading of Theocritus 17.1 which may not be as fulsome in its praise of Ptolemy Philadelphus as has been supposed.

<sup>26</sup> Cicero *Somnium Scipionis* 13; Aristotle *Meteorologica* 363a8-12.

appear in order to access what we will term 'south-polarities' (= 'things seen by the mind' on the basis of 'signs that are prescient')<sup>27</sup>.

Whatever these texts bring to the surface, the portage is done by signs. In both Aratus and Cicero, the tendency of 'signs' (specifically 'constellations') to point to each other is marked. This, we suggest, allegorises the way in which individual words allude to each other. Perseus, for instance 'stretches his right hand towards the throne of Cassiopeia' ('...dextram ad sedes intendit Cassiepieae': Cicero *Phaenomena* XXIII.23)<sup>28</sup>. Similarly at Aratus *Phaenomena* 439-440 the Centaur's right hand seems to point permanently ('αἰεὶ') towards the Altar. In these examples the reader of the skies receives direct 'signage' from the human instrument most commonly and most portentously used in pointing, namely the right hand. These constellations behave as indicators ('signs') of something else. As 'signs' they obey their fundamental imperative which is to point elsewhere. Indeed they may be said to allegorise allegory<sup>29</sup>. Now as a form of 'helmsman', the reader will connect the celestial signs automatically in the act of using the sky as a map. Yet this reader is warned that the text is not a passive collection of 'words' but a system of active signage. These signs may point in unexpected directions that confound our expectation of their relationship or lack of relationship ['Centaur-Altar']. At very least the allegorically-minded reader may be reassured that the author intends a system of interconnected signs to be discoverable from the text.

### **Mollipedes: the Background:**

As we have suggested, we intend to examine a particular word or 'sign', namely the adjective 'mollipedes' ('soft-footed') attached to cows ('boves') by Cicero in line IV.10 of his *Prognostica*<sup>30</sup>. In the passage in question, the author is presenting various natural phenomena as 'praesensiones' of rain. The word 'mollipedes' is unique however and has no corresponding term in the lines of Aratus' *Diosemeia*. Neither is there any allusion to the softness of bovine feet in Varro *Atacinus* or in Avienus, translators of Aratus who will have had Cicero's text before them. The word is also ignored by Virgil who adheres closely to the version of Varro *Atacinus* when alluding to these cows<sup>31</sup>. So even if Cicero had good reasons to use 'mollipedes', these do not seem to have carried any weight with his successors. There is a tendency to translate 'mollipedes' by the

<sup>27</sup> There is a double, overlapping poetics at play. The 'Prognostica' ('things that are prescient') provide the oracular texts on the basis of which the reader reaches 'Phaenomena' ('things apprehended by the mind's eye'). The verb οἶδα will counterpoint this latter meaning (= 'I see with the mind's eye')

<sup>28</sup> Compare Cicero *Ad Atticum* 16.15.3. Octavian gestures towards Caesar's statue as he swears an oath that he be allowed to attain the honours of his father: 'Caesar... dextram intendit ad statuam'.

<sup>29</sup> We are conscious here of an etymological derivation of 'allegory' namely 'I refer to other things' ('ὀλληγορευω' = 'ὄλλα ὀγορευω'). See Homer *Odyssey* 2.318 for 'ὀγορευω' meaning 'I refer to'. This is the sense in which these constellations allegorise 'allegory'. Of course the basic meaning of 'ὀγορευω' is 'I say'. See Isidore *Origines* 1.37.22: 'allegoria est alieniloquium' ('allegory means 'saying things that are unconnected [with the matter in hand]')).

<sup>30</sup> For the text we follow the edition of Soubiran (2002) p.194.

<sup>31</sup> For *Atacinus*' lines see Servius *Ad Georgica* 1.375: 'et bos suspiciens caelum - mirabile visu / naribus aerium patulis decerpsit odorem'. Compare Virgil *Georgics* 1.375-376: '... aut bucula caelum / suspiciens patulis captavit naribus auras'.

phrase 'slow-footed'<sup>32</sup> and it is true that the 'soft-footed' Hours in Theocritus are 'the slowest of the blessed Gods' ('μαλακαὶ πόδας ... ἸΩραι. / βάρδιστα μακάρων': Idylls 15.103). However 'slow-footedness' tends to evoke images of the lame god Vulcan<sup>33</sup>. The feet of Cicero's cows are not slow, but soft.

### **Mollipedes and 'soft-footed' poetry: 'μάλακαί' (1):**

Earlier we identified two possible approaches to the Prognostica, one of which involved the identification of oracular writing within the text. Oracular responses famously involve double meanings<sup>34</sup>, in terms of which the meanings of 'foot' and 'soft' within 'mollipedes' seem at first unpromising. However the word 'foot' can also mean a prosodic foot. At this point we turn to line 952 of Aratus' text which precedes the line to which 'mollipedes' relates by two hexametrical verses. The fourth foot of this line comprises the words 'καὶ μάλα'. The basic meaning is 'and quite [i.e. 'fully']'. However, seen through the prism of the word 'mollipedes', the phrase 'καὶ μάλα' may foreshadow or 'signal' the softness of feet. That is, if the word order is reversed and the two words are merged, we are left with the word 'μάλακαί' which means 'soft'. It is also in the feminine plural which is the number (and gender, surely) of Cicero's herd. Now the prosodic foot can fittingly be described as 'soft' on the grounds that it contains the elements of the word 'soft'. On the other hand, 'mollis' in Latin also means 'flexible' or 'ductile'. The fact that we have managed to reshape a dactylic foot ('καὶ μάλα') into an anapestic one ('μάλακαί'), means that this 'foot' must always have been 'soft' or 'malleable'<sup>35</sup>. In sum, line 952 of Aratus is 'soft-footed' in the sense that it has a foot that is soft enough to be able to be remoulded to express its 'softness' through its resulting lexical meaning (whilst all the time remaining within the prosodic parameters of a 'foot'). This refashioning of the line reminds one that wax was the highly pliable substance that in ancient times constituted the substance on which words constituting 'soft metrical feet' were etched.

### **Mollipedes and 'soft-footed' poetry: 'μάλακαί' (2):**

There are two further instances of this 'καὶ μόλα' phenomenon in Aratus, both of which we will investigate in detail.

The first occurrence is at line 94. The words that contextualise 'καὶ μόλα' here are 'πᾶς ἀρίδηλος'. They refer to the figure of Bootes who is 'very conspicuous in his entirety'. This renders the adverbial phrase 'καὶ μόλα' ('and wholly') otiose. This in itself should raise questions about its role. We learn subsequently that the constellation Virgo ('Parthenos') is 'near the very conspicuous Bootes' (136). Clearly Virgo has the best view of what is a very obvious sign. Indeed on star maps she is stretched horizontally

<sup>32</sup> Lewis (1985) s.v. 'mollipes'. The OLD suggests 'tender-footed'

<sup>33</sup> See further Williams (1968) pp. 255-260 for an extended critique of Cicero's lines. For 'tardipes' as an epithet of Vulcan see Catullus 36.7; Columella *De Re Rustica* 10.419.

<sup>34</sup> See below on Croesus and Cyrus.

<sup>35</sup> Perhaps we are to see the new metre of the foot as expressive of the action of Aratus' cormorant in line 952 as it dives under water. See Samuel Taylor Coleridge's poem *Metric Feet*: 'with a leap and a bound the swift anapests throug'.

staring upwards from beneath the feet of the vertical Bootes. Thus if ‘μόλακαί’ were to form a dative singular within the first metrical foot, we would access a meaning that would exactly correspond to, and therefore foreshadow, line 136. Bootes, in other words, would be entirely conspicuous ‘to the soft [Maiden]’. ‘Parthenos’ (from ‘Παρθένος’: 97) will provide the understood substantive behind the adjective ‘μόλακαί’. Dionysos of Halicarnassus helps to relate Virgo to feminine softness in his expression ‘πάντα τὰ ὀνόματα καὶ λεία καὶ μαλακὰ καὶ παρθενωπά’ (‘all terms evoking smoothness and softness and maidenliness’: *De Compositione Verborum* 23). Encouraging as this is, unless a nuance of ‘foot’ also finds a place within this discourse our accommodation between softness and Virgo will be speculative at best. In Euripides’ *Orestes* (1217) the hero tells Electra ‘to await Hermione’s foot’. An ancient Greek’s arrival was expressed by reference to their ‘foot’ (‘μένουσα παρθένου δέχου πόδα’). Thus the ‘first [soft] foot’ of line 94 can be construed as a reference to the imminent first entry of Virgo onto the ‘Phaenomena’ stage. The actual entry takes place, appropriately, during the first foot of line 97. Meanwhile as if to highlight the fact that feet are restricted to feet, the term ‘both’ [of the ‘feet’ of Bootes] covers ‘two metrical feet’ (‘Ἄμφοτέροισι δέ’: 96).

There is however a second nuance involving a form of ‘one-footedness’. In ancient Greek, to be ‘on one foot’ was to be alone. Virgo’s story is an *aition* of her return to being, not just on one foot but also on foot (number) one (94, 97). Her initial gregariousness (102-104) seeps away as she withdraws from humanity in the face of its increasing decadence (115f: ‘ἀργυρέωι δ’ ὀλίγη τε καὶ οὐκέτι πόμπαν ἑτοίμη / ὠμίλει ...: 119: ‘μουνόξ, οὐδέ τρωι ἐπεμίσγετο μειλίχιοισιν’: 122: ‘οὐδ’ ἔτ’ ἔφη εἰσωπὸς ἐλεύσεσθαι καλέουσιν’). The soft maiden finds the hardness of succeeding generations uncongenial.

### **Mollipedes and ‘soft-footed’ poetry: ‘μόλακαί’ (3):**

Our last example comes from lines 290-1 (‘οὔτ’ ἄν τοι νυκτὸς πεφοβημένωι ἐγγύθεν ἡὼς / ἔλθοι καὶ μόλα πολλὰ βοωμένωι’) Here we encounter a benighted sailor pleading in vain that dawn should approach soon. It is mid-winter and the nights are long. It should occur to us to wonder whom the sailor is addressing. In Virgil, Night is driven forward by the Hours (*Aeneid* 3.512). However, in Theocritus, in their role of bringing round the year, the Hours are ‘the slowest of the blessed gods’. The Theocritan Hours are unlikely therefore to speed the dawn, though importantly they are ‘longed-for’ and are ultimately ‘the bearers of a boon to all men’ (‘οἶόν τοι τὸν Ἄδωνιν ἄπ’ ἀνάω Ἀχέροντος / μὴνὶ δυωδεκάτῳ μαλακαὶ πόδας ἄγαγον Ἦραι. / βάρδιστα μακάρων Ἦραι φίλαι, ἀλλὰ ποθεινὰ / ἔρχονται πάντεσσι βροτοῖς αἰεὶ τι φορεῦσαι’: *Idylls* 15.102-105). It is reasonable then to suppose that the distressed crewman might be addressing the Hours, though perhaps not exclusively.

Now the frequent repetition of the sailor’s cries creates room for an interesting trope designed to persuade the reader to try to recreate the sound of the sailor’s words. It is possible, in other words, to translate ‘οὔτ’ ἄν ... ἐγγύθεν ἡὼς / ἔλθοι καὶ μόλα πολλὰ βοωμένωι’ as follows: ‘nor will dawn come soon to him though he shouts ‘καὶ μόλα’ many times’. If we follow this maverick procedure we will produce repeated cries of

‘μόλακαί!’, prefaced by an initial ‘καί’ and rounded off by a closing ‘μόλα’. Each cry of ‘μόλακαί’, occupying as it does a single, highly plastic, foot (rendered anapestic by the sailor), will constitute, we suggest, an allusion to a figurative version of Theocritus’ *‘soft-footed Hours’*. This will re-inform the scene on board ship where, it is now implied, the Hours are being addressed though by dint of an adjective that may allow any other listening goddesses who consider themselves ‘soft-footed’ to assist. A corollary of all this is that, thanks to Aratus’ trope, the phrase ‘μαλακαι ποδας’ (Theocritus 15.103) will retrospectively acquire a nuance of ‘soft in respect of metrical feet’. Meanwhile, as we have seen, the Hours are primed by their Theocritan character, as the slowest of the gods, to be unable to lend the sailor much immediate assistance<sup>36</sup>. His cries of ‘μόλακαί’ will that much more prolonged.

This interpretation is reinforced by the temporal references in Theocritus and Aratus. Theocritus refers to the visit of Adonis to Aphrodite taking place ‘in the twelfth month’ (‘μηνὶ δωδεκάτῳ’). Although he means ‘after a year’, the phrase could also be interpreted as meaning ‘in the twelfth month [of the calendrical year]’ that is, in December. Now Aratus has made stringent efforts to locate his sailor’s cries within a framework of references to the winter solstice. Having defined this day by reference to the ‘turning of the Sun’ in Capricorn (286: ‘κέκλιται Αἰγόκερος, ἴνα ἴς τρέπεται ἡέλιος’) he mentions ‘the dangers of setting out to sea ‘in that month’ (‘μὴ κείνωι ἐνὶ μηνί’: 287). The words now invite Theocritus’ ‘μηνὶ δωδεκάτῳ’ to constitute a retrospective gloss, defining ‘that month’ as December. That both phrases occupy their line as far as the third foot caesura serves to reinforce the allusion though Aratus steals a march on Theocritus by a syllable on either side (‘... κείνωι ἐνὶ μηνί’)<sup>37</sup>. The day of the solstice is then mentioned again in Aratus at 292-293 to mark the closure of the episode (‘ὅπουτ’ Αἰγοκερῆϊ / συμφέρειτ’ ἡέλιος’). This ring composition will also be reflected in the folorn sailor’s introductory ‘καί’ and his closing ‘μόλα’. Lastly the imminent appearance of the verb ‘μαλκιδώνω’ in Aratus (‘freezing’numbing’ [of the sailor]: 294) alludes to the word ‘μόλακαί’ since Hesychius relates μόλκιδώτατον to μόλακώτατον and makes the relationship clear in referring to the senses both of ‘softly’ and ‘to numb’ in his explanation of the verbal adjective ‘μόλκιδετον’.

### **Mollipedes and Millipeda:**

The above analyses should be considered to some extent experimental. At very least however they show that there are more ways to read a text than from A to Z. We return now to Cicero’s perspective on Aratus’ text. Aratus’ millipedes - among the least remarked of his creatures - are found climbing up a wall as a sign of impending rain at lines 957-8 of the *Phaenomena*. The passage immediately succeeds the ones involving

<sup>36</sup> Note that in the *Cratylus* (410c) the Hours are considered to derive from the verb ‘ὀρίζω’ (‘I divide’) as though they were spelt ‘Ὀραί’ rather than ‘Ὠραί’. This etymology brings the Hours into the poetics fold as an instrument of use to the poet seeking to develop a strategy based on word (re)division. If these Hours are soft-footed they are doubly qualified to play a poetics role.

<sup>37</sup> December was known as ‘Poseidon’ the sea-god which adds a riddling note to the line (‘lest you have the sea surge around you in that month ‘of the sea’).

cows and ants. Unfortunately the relevant part of Cicero's text is missing. However it is worth considering which word Cicero might have used to translate 'millipede'. Pliny the Elder suggests several possibilities including 'centipeda' and 'multipeda' and 'millipeda', of which the latter means (etymologically) 'insect of a thousand feet'<sup>38</sup>. This is the one we suggest Cicero will have had in mind for it clearly creates a jingle if set alongside 'mollipedes'. The word 'mollipedes' now becomes an oracular sign of the future. Its sound proleptically echoes 'millipeda'.

In sum, the texts of Aratus and Cicero have become woven together by the same subtextual thread. From the softness of a metrical foot (952) in Aratus we have modulated to the soft feet of Cicero's cattle. Following that, the next link in Cicero's subtextual and cross-textual chain will have taken us, we suggest, to a word which is related to 'soft-footedness' by the strong morphological coincidence between 'millipeda' ('thousand-footed') and 'mollipedes' (soft-footed'). However, in order that the distracting rhyme of the two words should not offend the reader's ear, Cicero will have described his millipedes by a circumlocution or by a synonym. The poet Nicander had likened a millipede to a ship under oars, with the oar-blades representing the creature's legs<sup>39</sup>. Thus a nautical metaphor was to hand if Cicero required it.

In the *Prognostica* therefore the words 'millipeda' and 'mollipedes' serve to bind together the disparate examples of the same theme, namely 'the signs of rain'. That the word 'millipeda' must have operated subtextually is a sign that Cicero treats his text as a textile. A tapestry presents a uniformly smooth aspect to the world. However its underside betrays the connections made by 'crossborder' threads which link one zone to another. Often these subtextual threads are intertwined in a way that cannot be seen on the surface. The paronomasia involved in 'mollipedes / millipeda' is a connecting device of extreme allusiveness which takes us below the superficial text in order to bridge the gap between cows and millipedes. In general the technique also reminds one of the interest shown by ancient writers in rivers such as the Arethusa that disappear underground before reappearing in a different country<sup>40</sup>. Moreover, this subtextual linking of a visible word with an invisible one supports the thrust of our 'Phaenomena' poetics. By following the signs, our mind's eye has been taken beneath the text and enabled to access another 'constellation' ('millipeda') which, while it will never be visible, will always be intellectually apparent.

### Etymology:

Although the prefixes of 'mollipedes' and 'millipeda' are not etymologically related, nothing will have prevented Cicero insinuating that millipedes were 'soft-footed'. Indeed it will have been his instinct to make the connection in some form. Etymology was the oracular approach to words *par excellence* and it is important to

<sup>38</sup> Pliny *Historia Naturalis*: 29.136.

<sup>39</sup> Nicander *Theriaca* 814: νήϊά θ' ὥς σπέρχονται ὑπὸ πτερὸ θηρὶ κιοῦσηι'; 'and, beneath the creature as it advances, there hasten as it were the wings of a ship'.

<sup>40</sup> Virgil *Eclogues* 10.1-5; Ovid *Metamorphoses* 5.407. The poetics of ancient poetry is ever woven into the fabric of its narrative content.

discuss an example to set alongside the other forms of oracularity presented above. In Plato's *Cratylus* the meaning of a word is its 'force'. At 394b7 this 'force' is presented as 'δύναμις'. In combination with 393a, the passage reveals that the names 'Hector' and 'Astyanax' are considered to have the same 'force'. Logically, since the names are different, this 'force' must lie elsewhere. Given that the etymologies of the names produce the almost synonymous meanings [in Plato's opinion] of 'holder' and 'king', the force or 'δύναμις' of the words must reside in their etymology. Now a synonym of 'δύναμις' is 'ἴς'. In the passage discussed above concerning the sailors in mid-winter, the phrase 'ἴς τρέπεται ἡλίου' occurs ('the force of the sun turns': *Phaenomena* 286). If we now supply the verb 'to be', this phrase will metamorphose into a grammarian's annotation on the etymology of the word 'sun'. That is, the clause now means 'the force [etymology] of the word 'sun' is [the verb] 'it turns'. Returning to the *Cratylus* we discover that one of the etymologies suggested for the Doric form of 'sun' namely 'άλίος' is 'to always turn' ('ἀεὶ εἰλεῖν': 409a). The addition of 'always' supplements the etymological profile of 'the sun' though the basic sense of 'turning' will be enough to give us confidence that cryptic etymologising is intended by Aratus. We are also alerted by Aratus to the fact that during passage on the winter solstice (286-293) 'turning' will be the reader's watchword. This in turn encourages the reader to find an oracular outlet for the 'turning' that has been signalled. In fact the solstice passage should be considered to be, as it were, 'charged' by the theme of 'turning' just as constellations were considered to 'signal' in an absolute sense when they were passing through a setting or rising phase<sup>41</sup>.

On the theme of Helios, there is a different but equally cryptic approach to the text in a passage about midsummer. At line 150 we learn that the arable fields are manifestly empty of corn-ears<sup>42</sup>. Here the key verb 'φαίνονται' adopts a nuance indicating certainty. Yet the particle 'που' indicates doubt and uncertainty. The anomaly should make us wonder whether we have chosen the correct nuance of 'που'. There is another 'που' which nevertheless has a different diacritic. However in Aratus' universe as we shall see, diacritics are not an insurmountable barrier to the acceptance of double meanings. With 'ποῦ' meaning 'how, in what way?' we access an Aratus in interrogative mood. 'How' the author asks 'are the fields manifestly without corn-ears?' This jolts the reader out of their assumption that the Dog-Days of July and August have withered the crop on the stalk<sup>43</sup>. This assumption will have been all the easier to make once line 150 was absorbed. It refers to the beginning of Leo (23<sup>rd</sup> July), when Sirius starts its onslaught<sup>44</sup>.

Forced to reflect by the author, the readers now reach a different conclusion, indeed one that should have been obvious had the readers not been waylaid by calendrical considerations. The sentence could mean that the entire country's crop has

<sup>41</sup> See Pliny the Elder 18.234 *nobilia sidera ... significant'*

<sup>42</sup> *Phaenomena* 149-151: Ἐνθα μὲν ἡλίου θερεῖται εἰσι κέλευθοι/ αἱ δὲ που ὄσταχῶν κενεαὶ φαίνονται ἄρουραι / ἡλίου τὸ πρῶτα συνερχομένοιο Λέοντι'

<sup>43</sup> See line 333 on the effects of Sirius

<sup>44</sup> See Hipparchus *Commentary on Aratus* 2.1.18

been successfully harvested. However these readers now require confirmation that Aratus has asked them the question and that they have reached the right answer. This comes oracularly through line 151 which, as part of the same sentence is still thrall to the interrogative tone of 'ποῦ'. 'In what way', we ask ourselves, 'does Helios at first come together with the Lion?' The phrase 'the first' need not be a pronoun. As a substantive aligned with 'ἡλίου', 'τὰ πρῶτα' could mean 'the first part of, or the beginning of, [the Sun]'. Once again the text begins to slide into a self-reflexive, analytical key. Leaving to one side for a moment the meaning of 'the beginning of the sun', we note that the verb 'συνερχομένοι' means *inter alia* 'joining into one [as of rivers meeting]'. It is also applied to stars coming into conjunction with one another. Now if the discourse were to modulate into an allegory about letters and words, we could plausibly suggest that the first letter of 'Helios' was intended to 'join' the letters of 'the lion' ('Λέοντι'). This would produce the word 'ἡ/λεων' meaning 'of the crazed'. This is a promising start. The effects produced by Sirius are first attested in Homer. At Iliad 22.31 Sirius is said to bring much 'fever' to wretched mortals. The delirium of fever is a well-known symptom. Ovid in exile in Tomis suffers from an illness that causes him to talk distractedly and with 'maddened lips' ('Tristia 3.3.19-20: 'quin etiam sic me dicunt aliena locutum / ut foret amenti nomen in ore tuum').

However we also recall Plato's allusion to another version of Helios, namely 'ἄλιος'. If we were to detach the beginning of this word and reattach it to 'λεων' we would create the word 'ἄλεων' assuming we ignore the breathing. This means 'grinding' or 'bruising'. It is specifically used of dehulling grain such as barley. At Odyssey 20.109 we hear of a maidservant who is still milling after the others had 'ground their wheat'. Barley had also been part of the meal being produced ('ἄλφιτα τεύχουσαι ... ἐπεὶ κατὰ πυρὸν ἄλεσσον': 20.109-120). The word appears in Aratus as a powerful omen that the fields have indeed been harvested. 'Milling' ('ἄλεων') is now in full swing. However, we approach even closer to Aratus in a line from a poet recorded by Sextus Empiricus: 'Late grind the mill-stones of the gods, but they grind (even) the hulls'<sup>45</sup>. Divine vengeance is late in coming, we are told, but inordinately severe when it does. Of most interest is the last clause 'ἄλεουσι δε λεπτα'. Aratus' poetics, as we shall see, have always been considered closely connected to 'λεπτοτης' ('subtlety'). However the original meaning of the word 'λεπτος' is 'peeled' and, as a neuter plural, it can mean 'husks' as in the above verse. In order to be eaten at their best barley grains have to be dehulled with great care, lest the bran is lost. This is today the process that produces 'whole grain' as opposed to 'pearl'. We suggest that Aratus' 'λεπτοτης' is the result of the reader carefully peeling away the tough (even austere) outer hull of Aratus' poetry to reveal the full flavour and goodness of his barley. The process is slow and painstaking but the benefits of the care applied are manifold.

There are further layers to be peeled from the trope in line 150. If 'ἡλιος' can become 'ἄλιος' then 'λεων' can become its only real synonym namely 'λις'. This produces 'ἄλις' and 'ἡλις'. The former means 'in crowds' 'abundantly' 'sufficiently'. It seems most

<sup>45</sup> Adversus Mathematicos 1.287

suitable as a description of the abundant grain harvest we have been discussing. Aratus' passage is about to delineate the summer round of trading that depends on the Etesians winds bringing ships to and from (one assumes) the Black Sea. Black Sea grain was much prized by the Athenians in particular during the Peloponnesian War. Yet the theme of trading suggests that this adverb is intended to thematically evoke not only the lavish profits to be gleaned from a summer in the Aegean, but also the inability of mankind to content itself with what is 'enough' or 'sufficient'. The double meaning in 'άλις' makes a trenchant point and looks back to Virgo with her corn-ear in hand surrounded by the increasingly greedy generations of men.

The word 'άλις also means 'άλμυρις' that is 'of salt'. As mentioned above, the passage on the corn-fields is about to modulate into a vignette of the traffic by sea in the summer<sup>46</sup>. This trading on the salt-water will bring profits that can be salted away. Salt was a symbol of plenty as the entry of Suidas intimates 'άλσασιν ύει' ('it is raining with salt'). However 'salt' was then as now, a symbol of humour and particularly wit. Whilst this may be a reflection on Aratus' own double meanings of which there is an abundance here, nevertheless the author must also have something more specific in mind. If we return to our original word 'ή/λεων' and consider it the 'meaning' of the entire line 151, we might feel moved to try to integrate it into the syntax of line 150. This would produce the meaning of 'the fields of fools haven't a corn-ear between them'. This now reads as a sardonic quip at the expense of folly. The modern equivalent would be 'No grain in the silo'.

Lastly we suggest that there is a reference here to the area of Elis or 'Ηλις (Iliad 2.615). The area's coast was, and is, fringed by sandy plains with salty lagoons. This brings us back to the synonym of 'άλις' namely 'άλμυρις' which is itself a synonym of 'άλιπεδον'. This refers to the sandy plain around the Pireaus (though its etymology also suggest nearness to the sea). The sandy plain of Attica has thus found an alter ego on the other side of mainland Greece. Lastly there is a strong Iliadic connection between Elis and Bouprasion. In the Catalogue of Ships they form one contingent (2.615). Later Bouprasion is termed 'rich in wheat' by Nestor during his excursus on the Pyleans' battle against the Eleans (Iliad 11.756). In conclusion Bouprasion is evocative of Elis, and Elis therefore will bear a flavour of Bouprasion's 'rich grain fields'. Today's Elis, particularly the northern 'Hollow Ellis' of the ancients, is chiefly known for the production of corn. This brings us back to the beginning of our own excursus.

### **Prognostica and Etymology:**

Hitherto it may have seemed as if we have concentrated exclusively upon exploring the oracular aspects of these two poems as suggested by a particular interpretation of their title-words. Yet it must have become clear that the subject matter unearthed by this oracular approach to the interpretation of words is wholly bound up with aspects of the lives of Aratus and those around him. This will become a recurrent theme of our work. The authors speak the - often scientifically-supported - truth about

<sup>46</sup> This modulation in itself argues for our interpretation of line 150

the world around them, but through an oracular medium. One aspect of their oracularity, as we have seen, is etymology. In the *Topica*, Cicero defines 'etymology' mot-à-mot as 'veriloquium' ('truth-speaking')<sup>47</sup>. Whilst it is a riddle that the truth about the world consists in etymologies because 'etymology' etymologises as 'truth-speaking', nevertheless for a didactic poet anxious 'to speak the [sober] truth' etymologies will provide an oracular ('truth-speaking') medium. This crystallises the meaning of *Diosemeia* and *Prognostica* as 'things which are oracularly prescient'. The prescience of Aratus' *Phaenomena* consists in the surprisingly creative ways (including etymologies) through which Aratus' text opens the path towards the truth. In general there seems to be a seismic and polarised shift in the way these authors should be now understood. The argument is now oracular, the content scientific. Hitherto, in both authors the roles had seemed reversed.

Cicero's etymologically-based argument would have been found convincing by the Stoics in whose number Aratus would have counted himself<sup>48</sup>. As outlined in Cicero's *De Natura Deorum* (2.64-66), Stoic Philosophers felt that the truth about the world could be determined by studying the roots of words. Thus Cicero's argument is the more incontrovertible in its appropriation of the Stoics' dialectical terrain. In fact in the *De Natura Deorum*, Cicero's Stoic interlocutor himself opines that 'seas are shaken by the winds' ('maria agitata ventis': 2.26). In the *Prognostica* passage then, Cicero's dialectical methodology and his conclusions are wholly Boëthan. Meanwhile the 'Alexandrian' tautology, far from being otiose, is one of the fainter oracular signs that guides the helmsman-reader across the skies of the text.

### **Phatne: the Oracular Prognostica:**

We now propose to consider another form of creative prognostication. A passage of Cicero's begins with the apparently innocuous line 'atque etiam ventos praemonstrat saepe futuros' ('and often the sea also reveals in advance the winds that are imminent'). The subject is presumed to be the sea ('mare') which occurs in the following line ('inflatum mare cum subitoque penitus tumescit')<sup>49</sup>. However we should be encouraged by the riddle of 'καὶ μάλα'/'μάλακαὶ' to be watchful for 'soft feet', especially, we would suggest, as there is a tautology created by the prefix 'prae' and 'futuros'. This reminds of the (only) apparently otiose nature of 'καὶ μόλα πᾶς ἀρίδηλος' (*Phaenomena* 94). To return to the Ciceronian passage, it follows the author's one surviving line on Phatne, an obscure star cluster which nevertheless much preoccupies Aratus, whilst also interesting Theocritus<sup>50</sup>. In Aratus, Phatne consists of a patch of haze sandwiched

<sup>47</sup> *Topica* 35: 'Multa etiam ex notatione sumuntur. Ea est autem, cum ex vi nominis argumentum elicitur; quam Graeci ἔτυμολογίαν appellant, id est verbum ex verbo veriloquium'.

<sup>48</sup> See further Kidd (1997) pp.10-12

<sup>49</sup> *Prognostica* III.1-2

<sup>50</sup> Aratus *Phaenomena* 892-908, 995-998; Theocritus *Idylls* 22.21-22. On a parenthetical note, Theocritus creates a numerological allusion to Phatne. His line numbers and poem number (22.21-22) combine to represent the condition of Phatne and the Asses. Phatne is the central '1' surrounded by one more '2' on the left than on the right. The weather is improving in Theocritus suggesting he is developing Phatne's role as a predictor of calm after the storm (Aratus 995-998).

between two stars to the north and south. At times when the haze thins and disappears, these two stars (called 'Onoi' or 'the Asses') appear to converge. When the haze reasserts itself, the Asses diverge. This oscillation is related to changes in the weather. Thus when the haze 'darkens', the Asses separate, and the night is clear, rain is forecast. Conversely when the haze disappears and the Asses re-converge, a rain-storm is threatened.

In Latin 'Phatne' is translated by the word 'Praesaepae' ('manger, stall')<sup>51</sup>. It is also spelt 'less correctly' as 'Praesepe'<sup>52</sup>. Such a word is easily deconstructed into 'prae' and 'saepae' (= 'in front of / a fence'). Now if Cicero were concerned to 'stuff full' his passage, not with 'praesensiones' of rain, but with meteorological indicators of rain, then he will have wished to allude to the phase of Phatne's which signals rain. One way of doing this would be to use his oracular text as a visual counterpart of the sky. He could have represented the divergence of the Asses by separating a word by *tnesis*. We suggest then that the words 'praemonstrat saepe' achieve this end. The conjoined Asses as represented by the integral word 'Praesaepae' have been thrust apart by the word 'monstrat' which represents the thickening of the haze that is Phatne. 'Praesaepae' has become 'Prae ... saepe'. The cluster's configuration as represented by 'Prae ... saepe' currently portends rain, according to Aratus' observations.

However, with the appearance of 'Praesaepae' a new text also emerges. This also allows an etymological reading of 'inflatum mare' ('the blown-upon sea') to become properly integrated into an empirical discourse about the behaviour of wind at sea. Thus we translate as follows: 'and Praesaepae also reveals that winds are about to arrive, and then suddenly ('cum subito') and deeply the sea, having been blown upon, begins to heave'. The sentence now follows the progression of Aratus' later argument (Aratus 903-908). Phatne performs a second role in predicting wind. In Aratus, this wind will come from the direction of whichever Ass is less hazy and brighter. Given the nesting of 'praemonstrat saepe' within 'ventos ... futuros', and given the antithesis of 'inflatum ... tumescit' in the following line, it seems Cicero is simply observing the potential of the wind to come from either direction. This summarises Aratus' view that the brightness of the Asses is continually oscillating, a circumstance which has a corresponding effect upon the direction from which the wind arrives.

The new sentence we have forged also has an empirical thrust. Phatne is less a presentiment of weather, more a genuine, if last-minute, indicator of wind. The Chinese hold that a halo round the Sun brings wind, whilst a halo round the moon brings rain. Cicero is suggesting that, at night, a phenomenon of haziness between stars, such as seems to lever them apart, is a meteorological indicator [not a 'praesensio'] of wind that is immediately imminent ('futuros' = 'on the point of coming into being'). We may compare this with empirically-proven phenomena that are common in our own experience of the weather. For instance, when the horizon seems pencil-sharp and the hills seem close to the viewer, rain will not be far off.

<sup>51</sup> Pliny *NH* 18.353; Avienus 1651

<sup>52</sup> Lewis & Short *A Latin Dictionary* s.v. 'praesaepae'

Cicero's oracularly-arranged textual signs express his empirical evaluation of the weather, but his interest (in the surviving lines) is focused not on Aratus' rain but on the causal link between (a) Phatne and the Asses (b) wind (c) the swollen sea. With Phatne present and visible ('monstrat') the Asses separate (Prae ... saepe). This will indicate rain at some future point and indeed the word 'etaim' in line III.1 may suggest that Cicero had already dealt with this aspect of Phatne. But before the rain arrives the Asses will indicate the provenance of the wind depending on their relative brightness. This wind, when it arrives, will cause the sea to swell. As a corollary of this we may also assume that a violent rain-storm is not preceded by wind at all. Such a calm will be the calm before the storm. And the calm before the storm and the storm before the calm is also the (oscillating) message that we receive from Aratus' second passage relating to Phatne (Aratus 994-998). Phatne is not content with predicting bad weather. She can also predict the opposite.

In Cicero's view of nature, the wind is both a 'prognosticon' ('that which can be known in advance by indicators' [such as the Asses]) and a 'phaenomenon' (the wind is proved by the disturbance of the sea). On the other hand, *as a component of Cicero's text*, the word 'Prae ...saepe' is a 'diosemeion' which is 'an oracular sign of the unobserved [Asses]' but is also a 'phaenomenon' in 'appearing to view'<sup>53</sup>. Meanwhile 'Praesaepe' (the Manger) and 'prae ...saepe' (both 'often .... in advance' and 'the Asses') effectively constitute a triple meaning<sup>54</sup>. Indeed the superficial meaning ('*often reveals in advance*') may now be thought to metamorphose into a gloss on the behaviour of the Asses and Phatne.

Ancients texts were written as 'scripta continua'. There were no gaps between any of the letters in a hexametric line of poetry. Thus an ancient eye had to create its own mental spaces between words. This may have made it easier for Cicero to disguise such a legerdemain as '**praemonstratsaepe**'. Whatever the case, the word 'monstrat', represents the haze of Phatne within our celestial schema. However it also means (out of context) 'it reveals' 'it shows by example'. It is a word then that is very at home in the sphere of (Cicero's) Phaenomenal poetics. Along with 'Prae ... saepe', by its meaning and presence it 'shows by example' the relative positions of Phatne and the Asses. As a sign it also represents something else: it 'betrays' or 'reveals' the internal division of integral words ('Prae / saepe'). Finally, there is one other sign, the presence of which is easy to ignore. The lateral movement of the words 'Prae ... saepe' are paralleled by the wider stellar context. Praesaepe lies within Cancer, or the Crab, namely, the crustacean that famously advances by moving sideways. Yet as we shall see this image is itself not simple. For what can scuttle sideways in one direction may then scuttle back in the

<sup>53</sup> The word 'saepe' continues to have a marked presence in the surviving fragments of Cicero's *Prognostica*. It occurs (with significance for our passage) as 'barrier' or 'fence' at III.6 and as 'often' at IV.4. These are confirmatory signs of the double meaning which we should apply to 'prae ... saepe'. See below on the ololygon.

<sup>54</sup> Aratus tells us that when three signs point in the same direction (as here) we can be 'bold' (1142-1144). This also confirms we were correct to show 'boldness' in the case of the triple occurrence of the soft-footed 'καὶ μάλα'.

other direction. This oscillation is also a distinguishing feature of Phatne and it will much occupy us when we turn to the reading of the text backwards.

### The Aratean Phatne:

Εἰ δὲ μελαίνηται, τοῖ δ' αὐτίκ' ἑοικότες ὦσιν ἀστέρες ἀμφοτέρω, ἐπὶ χ' ὕδατι σημαίνουσιν.  
Εἰ δ' ὁ μὲν ἐκ βορέω Φότνης ἀμηνῆν φασίνοι λεπτόν ἐπαχλύων, νότιος δ' Ὀνος ἀγλαὸς  
εἶη, δειδέχθαι ἀνέμοιο νότου,  
Phaenomena 903-907

That similar 'Phatnean' divisions and realignments will be found in Aratus' text is a certain corollary of the above analysis. A particularly strong Phatnean oscillation occurs in lines 903-904. Like Cicero's 'praemonstrat saepe' these lines appear to summarise Phatne's configuration when rain is predicted: 'Εἰ δὲ μελαίνηται, τοῖ δ' αὐτίκ' ἑοικότες ὦσιν / ἀστέρες ἀμφοτέρω, ἐπὶ χ' ὕδατι σημαίνουσιν' ('if [the Manger] darkens, and both stars are alike<sup>55</sup> at the same moment, they will be giving an indication of rain'). This is the point above all where one would expect words to behave in a Phatnean manner and indeed the letters of 'περὶ χ' ὕδατι' seem to adequately represent a schema in which a central haze is flanked by two 'recognisable' stars. The fact that Phatne will be represented by the letter 'chi' here is also significant, since it represents the dynamically chiasmic structure of Phatne vis-à-vis the Asses<sup>56</sup>. Yet the character of 'περὶ χ' ὕδατι' can only be considered to be properly Phatnean if the outer elements (the Asses) can be shown to be capable of coalescing with the resulting eradication of Phatne and the production of a new text. Phatne must always disappear when the Asses conjoin.

The words 'περὶ /χ' / ὕδατι' can be successfully, if unmetrically, fused together (but also redivided) as 'περίχυδα τι'. In conjunction with the verb 'σημαίνουσιν' this will now mean 'should they be indicating somewhat by sprinkling'<sup>57</sup>. The word 'τι'

<sup>55</sup> The word 'ἑοικότες' means 'alike to themselves', that is 'recognisable'. However it also means 'fitting' 'seemly' and as such will suggest the members of the cluster by remaining apart ('alike to themselves') are obeying the metrical constraints of the line. They are behaving in a 'seemly' manner. That is, the metricality of 'περὶ χ' ὕδατι' can only be preserved if its members remain at a distance from each other and if the χ that represents Phatne retains its individuality vis-a-vis the words on either side. The word 'ἑοικότες' then will constitute a sign of textual conformity.

<sup>56</sup> See also the chiasmus of lines 906-907 with their north:south:south:north pattern. Note also the chiasmus of 994-995 when Phatne returns.

<sup>57</sup> For 'περίχυδα' see Hippocrates 'περὶ παθῶν' 52: 'τὸ ἄλφιτα ὀβρέκτων τῶν κριθῶν περίχυδα ἐπιτισμένων ἰσχυρότερα ἢ βεβρεγμένων'. The passage contrasts the methods for peeling raw barley. Sprinkling the skins is considered preferable to soaking them. Note that Hippocrates' reference to 'soaking' is co-opted into an extra-textual sign of the meteorological 'soaking' effect of Phatne now that she has disappeared. Her disappearance is announced by the formation of 'περίχυδα' as a result of which her absence becomes a prognostic of the soaking rain-storm that will finally ensue. The allusion to the Hippocrates passage creates of it an allegory of its own. The objective in sprinkling or soaking the barley is to 'peel' it. As we have seen, the word for 'peeled' in Greek is 'λεπτός' which has been a key word in Aratean poetics particularly since the discovery of the acrostic at lines 783-787 ('λεπτή'). At Iliad 20.497 the word 'λεπτός' ('refined' 'subtle'/'peeled') is used in the context of peeling, specifically barley. Thus in our allegory the 'sprinkling' of the barley, since it will enable the hulls to be removed without taking the bran with it, will articulate the careful, personal preparation of the text by the reader who is in search of the final goal of 'λεπτοτης' (subtlety, 'refinement') by peeling the hull. The removal of the hull will

['somewhat'] perfectly complements the sense of a light shower which emerges from 'περίχυδα' ('by sprinkling'). Meanwhile Phatne will no longer be represented by the 'χ' of 'περίχυδα' because the chi now belongs to the element 'χυδα' which is a suffix deriving from the adverb 'χύδαν' which means 'abundantly', 'overflowingly'. This alerts us to the etymology of 'περί/χυδα' which in fact suggests 'complete inundation' and (lying as it does beneath the superficial meaning) points ominously to the drenching of the fields by the storm, which always ensues when Phatne vanishes and the Asses merge (899-900; 902)<sup>58</sup>. Thus the etymology departs from the superficial meaning ('by sprinkling') and looks forward to the violent denouement. As readers we ourselves await this storm having forced the verbal 'Asses' to coalesce. However we will only descry the storm in the text if, alongside the etymological link, we can find a path from the drizzle of 'περίχυδα τι' to the full-scale storm that the disappearance of Phatne must always signal.

In Aeschylus' Agamemnon, the Chorus fear the arrival of a heavy, metaphorical rain-storm of blood following the cessation of what they term 'drizzle'<sup>59</sup>. Clytemnestra has murdered Agamemnon. The House of Atreus, no longer flecked with drops of blood, is soon to be steeped in a welter of gore. The power of the image depends on drizzle being the precursor, not to mere rain, but to a torrential downpour. Therefore the sprinkling of rain produced by the integration of 'περί χ' ὕδατι' constitutes a meteorological sign (not a presentiment) of a deluge that will leave the fields drenched. Thus an oracular approach to the text unearths not the phenomenon itself but its meteorological indicator. Oracular signs lead to empirically-proven signs. The drizzle is in fact part of the calm before the storm which we noted above. Lastly, 'περίχυδα τι σημαίνουσιν' could also mean 'they will be indicating something by sprinkling'. The word 'τι' points towards the rain-storm in the same way as the constellation Perseus points to the throne of Cassiopeia and as the Centaur points to the Altar.

### Word Reversal:

The kinesis of the text is permanent. In fact Aratus's text goes beyond the condition of music in the sense that its counterpointed parts are played simultaneously but without any 'notational' addition to the 'score'. However we should attempt to take the instability of his text a stage further and examine a thoroughgoing reversal of his

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constitute the final task, just as the convergence of 'περίχυδα' does not in itself unleash the storm. The soaking of the text suggests by contrast that the text is treated as an artefact - perfunctorily, at arm's length, insensitively. Peeling after soaking extracts the bran from the barley. The bran then must represent the difference between reading Aratus the old way and reading him the way explained here. This Hippocrates passage will become a touchstone of the interpretation of the storm as we describe it below. The contrast between 'sprinkling [drizzling]' and 'soaking' parallels the two faces of the storm. The northern drizzle is on this reading representative of the way to access Aratus' 'λεπτοτης' (906 with 894). 'Northern' also translates as 'read from the north' which means 'backwards'. The southern aspect proves by contrast to be a harsh environment where little can be gleaned. Yet the literary world assumes the southern Ass portends good weather.

<sup>58</sup> Aratus 902: 'οὐκ ὀλίγωι χειμῶνι τότε κλύζονται ἄρουραι'. The etymology mentioned is a concise example of the way etymologies operate on the oracular, truth-speaking level.

<sup>59</sup> Agamemnon 1534-1535: 'δέδοικα δ' ὄμβρου κτύπον δομοσφαλῆ / τὸν αίματηρόν: ψακὸς δὲ λήγει'.

words. This, it is hoped, will constitute the culmination of the ‘soft-footed’ poetics of ‘καὶ μόλα’ / ‘μόλα καί’.

Line 905 provides the material and coincidentally picks up the story of Phatne where we left it in the previous section (‘Εἶ δ’ ὁ μὲν ἐκ βορέω Φότνης ἄμενηνὰ φαεῖνοι’). Firstly the members of ‘Εἶ δ’ ὁ μὲν’ may be brought together through another Phatnean convergence. Here the chiasmic structure is doubled (ABCBA) with the missing eta (C) already giving advance indication of the disappearance of the central Phatne (C). This is a small but engaging sign of the instinct of the text to ‘signal’ at every level. Now this step undertaken by the reader in binding ‘Εἶδομέν’ together needs to be contextualised. In the previous line Phatne had been predicting merely rain until the reader intervened to bind the letters of ‘περίχυδα’ together. This had set a train of events in motion which we should now re-examine. A full-stop should be inserted before ‘περί’ to allow the storm phase of Phatne to evolve its own conditional clause to balance that of the rain phase which was expressed in metrical language : ‘Εἶ δὲ μελαίνηται, τοῖ δ’ αὐτίκ’ εὐκότες ὤσιν / ἀστέρες ἀμφοτέρου’; ‘if Phatne darkens, at once both stars are distinguishable’ (903-904). We now move on to a quite different conditional clause beginning with the protasis: ‘should they [the Asses] give a sign of something by sprinkling...’. The metrical discourse has been rudely appropriated, indeed hijacked, by the binding together of the members of ‘περίχυδα’ and subsequently ‘Εἶδομέν’. This has suddenly taken us into Phatne’s storm phase. This is also cue for the Asses to give a long-range sign of the storm by generating drizzle.

With ‘Εἶδομέν’ in place the storm is gathering pace. This fresh ‘sign’ constitutes a subtextual indication from the author whose eyes are trained on something (‘Εἶδομέν’ = ‘we see’ ‘we perceive’). What Aratus and the compliant reader see together is the reversing of the letters of ‘ἀμενηνὰ’ to create ‘ἀνηνεμὰ’ (‘windlessness’)<sup>60</sup>. As we shall see, this unprecedented action is sanctioned *post factum* by the message received from this oracular reading of the line. With ‘εἶδομέν’ governing ‘ἀνηνεμὰ’ we translate as follows: ‘we perceive [both the letters of and the meteorological conditions of] windlessness’ [coming] from the north of Phatne’ (‘Εἶδομέν ἐκ βορέω Φότνης ἀνηνεμὰ’). As we have noted on many other occasions in Cicero’s text, an oracular sign creates an empirical indicator of weather. Windlessness to the north of Phatne means the weather-watcher will instead turn south and expect a storm from that quarter instead. With Phatne consigned to temporary oblivion, the northern Ass can only gleam faintly. Meanwhile the southern Ass is bright. In these conditions the wind will blow from the south<sup>61</sup>. Hence, logically, we have ‘windlessness’ from the north. This is also entirely naturalistic, for Boreas was a notoriously dry wind who blew the storm-clouds both ahead of it and away from it. The North wind gathers the cloud ahead of it like a train pushing carriages (Aristotle *Problemata* 26.56). The southerly Notus was the bringer of cloud, heavy rain, and mud just as we find in the drenched fields of Aratus (Aristotle *Problemata* 26.46).

<sup>60</sup> Ironically the windlessness itself is an unobservable phenomenon.

<sup>61</sup> Phaenomena 905-6: ‘... φαεῖνοι / λεπτόν ἐπαχλύων, νότιος δ’ ὄνος ὀγλαδὸς εἴη’.

Thus 'Εἶδομ'εν ἐκ βορέω Φότνης ἄμενηνὰ' is a parenthetical aside. We continue with the second and third protases of the conditional clause we had started, followed by the climactic apodosis: 'φαεῖνοι / λεπτόν ἐπαχλύων, νότιος δ' Ὀνος ἀγλαός εἴη, / δειδέχθαι ἀνέμοιο νότου'; '[should the Asses drizzle] and should he [the northern Ass] shine faintly<sup>62</sup> as he darkens, and should the southern Ass be bright ... then expect a southerly wind'.

### Verbal Representation:

This schema is also represented visually by the words in the text. Phatne in line 905 provides the fulcrum. She has however, we must imagine, been rendered invisible by the reader's intervention. To the north of her is 'περί χ' ὕδατι' in the same metrical *sedes*. This would have been a microcosmic indication of Phatne's role in bringing rain had the letters not been bound together and redivided to create the conditions for a storm ('περίχυδα τι'). The new text means 'by a slight sprinkling [of drizzle]'. But the words also literally mark the domain of the Northern Ass who is just above Phatne on the page and therefore just to the geographical north of her in the sky. This Ass is faint and dim ('λεπτόν ἐπαχλύων'). However its glint is a subtle one ('λεπτόν')<sup>63</sup>. It is after all the northern Ass that the reader has addressed in the process of 'peeling back' ('λεπτόν') the text. The 'feebleness' of the Northern Ass's glint makes 'ἀμενηνὰ' into a synonym of 'λεπτόν'. Little wonder then it is the word that is 'peeled back'.

Returning to the skies over Phatne, it must be the case that, with the southern Ass shining in full splendour, the drizzle will be produced from the mistiness above which the windless northern Ass is almost shrouded from view. Thus the position and meaning of the words 'περίχυδα τι' both verbally explain the northern Ass's slight drizzle and locate the northern Ass above the cloud and just above 'Phatne' on the page (905). The fact that the northern Ass is not named in the text reflects its virtual invisibility behind the drizzling mist which has now become nearly penetrable as reflected in the letters: 'περί χ' ὕδατι' becoming 'περίχυδα'. The engulfing windlessness keeps the celestial conditions from altering. When Phatne looks south however, 'down the page', she finds directly below her *sedes* the words for 'southern [Ass]' ('νότιος [Ὀνος]') which is highly visible and indeed magnified both spatially and verbally by 'ἀγλαός'. Finally, directly below the southern Ass - again just after the caesura and on cue - comes the southern wind ('νότου') just as predicted by the behaviour of the southern Ass. The rain-storm will soon follow.

### A summary:

Aratus has embedded into his text a subtext that presents a highly scientific exposition of a storm. His superficial discourse gives one to feel that it is the rain stage of Phatne that is operative when the Asses start to oscillate in brightness thereby

<sup>62</sup> Note that the adverbial 'λεπτόν' now follows the main verb not the participle.

<sup>63</sup> The textual word 'ἀμενηνὰ' meaning 'faint' but also 'fleeting' and 'impermanent' contextualises the appearance of its alter ego.

predicting wind. In fact the rain phase has already been subverted by the storm phase which is introduced by the reader and Aratus fusing the letters of 'περί χ' ὕδατι' together to produce a new meaning (drizzle) which is symptomatic of, not rain, but a storm. Simultaneously the fusing emblematises the disappearance of Phatne in the way the letters coalesce. Following this another fusing of words (Εἰ δ' ο μὲν) articulates the ever gathering storm but also provides a channel for the author's editorial voice which directs the reader towards a third oracular sign ('ἀνηνεμᾷ'). This indicates the windlessness of the northern skies where the drizzle must be falling. This is Aratus' step-by-step recreation of the development of a storm. To the north, around the cloudy northern Ass, all is eerily quiet and damp. The southern Ass is free of cloud and bright but this only flatters to deceive. In short order the gale-force southerly will arrive<sup>64</sup>. After that will come the torrential rains that will flood the fields.

In sum, the poetics of 'καὶ μόλα' / 'μόλακαὶ' in the shape of 'mollipedes' is revealed as a the foundation-stone of Aratus' Phatnean poetics. The softening effect upon prosodic feet articulated by the poetics of 'μόλακαὶ/mollipedes' is a necessary contributor to the Phatnean poetics that govern the convergence and disappearance of words, the redivision of the same words, and even the reversal of the letters of the text<sup>65</sup>. The words 'μόλακαὶ' and 'mollipedes' emblematises the metrical soft-footedness of the poems<sup>66</sup>.

### **Ametrical Poetics:**

Any collateral damage caused to the hexameter or to the textual diacritics by the evolution of 'περίχουδα', 'Εἶδομέν' and 'ἀνηνεμᾷ' can be excused by Aratus' ametrical poetics. 'Phaenomena' are not only 'things which appear to the senses (notably to the sight,)', but also 'things which appear to be [such and such]'<sup>67</sup>. We are warned by the title to be impressionable. We are also warned to rely on sight rather than sound by what we take to be the first word of the Diosemeia (733: Οὐχ ὀρόαις? = 'Do you not

<sup>64</sup> See Aristotle *Historia Animalium* 597b11 for the Notos (South Wind) as wet and boisterous.

<sup>65</sup> Through the effect of the oscillating brightness of the Asses on the direction of the wind.

<sup>66</sup> Note too that Cicero's cattle herd may also contain the oxen that would have been used to pull the ancient plough. The ploughing was done in such a way that a continuous furrow was formed which serpentine up and down the field. The earliest ancient texts were written in this continuous, serpentine manner such that alternate lines read backwards ('boustrephedon' text). Any reversal in the words of either author may therefore be considered a function of a poetics of 'boustrephedon' ('ox-turning'). Two examples of such 'boustrephedon' poetics seem to be worth mentioning. The cows inhale the (liquid) essence ('sucum') from the air at Prognostica IV.10. However what emerges in the opposite direction from their nostrils ('naribus') will be the reverse of 'sucum', namely 'mucus' ('mucous'). This oscillation is highly Phatnean and also perfectly naturalistic. Furthermore, to the Romans 'nostrils' may be read as emblematic of a dual discourse on the basis of Servius' suggestion in his etymology of the river Nar (= 'Nose'), a river which had two sources in the hills of Umbria (Ad Aeneid 7.517: 'Nar ... quod in modum narium geminos habeat exitus'. A second example of 'boustrephedon' poetics comes from IV.3 where we suggest 'sono' may be concealing a reference to 'onos' that is (when transliterated into Greek) 'the Ass'. The adjective 'absurdo' provides the required contextualisation of 'preposterousness'. The word 'preposterous' in Latin literally means 'back to front'.

<sup>67</sup> See *Iliad* 9.94 for the verb 'φαίνομαι' in this sense used without an infinitive.

see?')<sup>68</sup>. Furthermore, the uncontextualised pun on Aratus' name in line 2, warns us to treat the text as one that is 'not spoken' ('ἄρρητον'). Aratus' text should be seen but not heard just as the stars 'silently' slip across the sky<sup>69</sup>.

In regard to Aratus' style of argument, the famous word 'ἄρρητον' (2), thought to be a reference to his name, could be considered an Attic form of the Doric 'ἄρρᾶτον' which means (in Plato) 'harsh' or 'ἀμεταστροφος' ('not-to-be-turned')<sup>70</sup>. The superficial text of Aratus certainly presents as 'austere'<sup>71</sup> and 'unadorned'. However what most strikes one here is that Plato's word 'σκληρος' is the precise antonym of 'μόλακος' the word that is totemic of the oracular approach to Aratus' text<sup>72</sup>. This further enhances the status of Cicero's 'mollipedes' as the corresponding key word in his text. Hesychius meanwhile has a plethora of synonyms for 'ἄρρητον' itself namely 'αἰσχρος' ('deformed' 'ugly') 'ἀφραστός' ('unutterable' 'not to be perceived') 'ἄφωνος' ('voiceless') 'ἄπορρητον' ('secret' 'not to be spoken' 'enciphered'). The meanings of 'enciphered' and 'deformed' are particularly relevant to a hidden poetics of ametricity. Meanwhile the voicelessness of Aratus also throws emphasis on what can be seen.

Further discussion of the name 'Ἄρητον' (Aratus) will shed light on the author's attitude to the metre. 'Aratus' constitutes an alternative spelling of 'ἄρρητον', and would not affect the metre were it substituted for it in line 2. Indeed confusion exists in the same metrical *sedes* at Iliad 17.37 between 'ἄρρητον' and 'ἄρητον'<sup>73</sup>. Thus Hesychius' two definitions of 'ἄρητον' should be accorded some weight. These are 'βλαβερον' and 'πολυχρονον'. The first of these means 'harmful' and may suggest that the text contains an arsenal likely to wound the reputations of those caught in Aratus' sights. Aratus' pen will prove mightier than the sword if wielded against his enemies. However the 'harming' may also be self-inflicted. By severing the members of his text in the manner we have seen, Aratus is also guilty of severing his own limbs. The word 'κωλον' means both 'human limb' and 'metrical unit' or member of a strophe'.

The second definition of 'Ἄρητον' is strikingly apposite as an epitome of his poetics. The word 'πολυχρονον' means (a) 'of ancient times': Aratus text is written in the Homeric style; he is a deliberate archaiser; this allows him to allude very directly to Homer; Homer's sheer scale ensures Aratus has a rich source of secondary narratives by which his own text may be informed; (b) 'of long-standing': Aratus' theme is as old as the universe itself; the stars and their motions are nothing new; this in turn prompts us to wonder what is new about Aratus; (c) 'of long duration': Aratus' text proved to be extremely popular in later antiquity and it now appears the author was confident it

<sup>68</sup> See *contra* Kidd (1997) p.425. On this reading, Cicero's question to the frogs at IV.1 reads as a re-beginning of the Prognostica ('vos quoque signa videtis?').

<sup>69</sup> *Aeneid* 3.515: 'sidera cuncta notat tacito labentia caelo'

<sup>70</sup> *Cratylus* 407e. In our view this word will have suggested to Aratus a subversive meaning of 'turning a great deal' (the 'α' prefix interpreted as intensive). This complements the polarisation of 'harsh' and 'soft'. Once a thing is soft it can be 'turned' a great deal.

<sup>71</sup> The word 'austere' conjures up (in Latin) Auster the South Wind which as we have seen, as Notus, is totemic of the received text. This is another indication of the Latin influence on Aratus' text. See above.

<sup>72</sup> See Aristotle *Rhetorica* 1408b9

<sup>73</sup> See Kidd (1997) p.164 for further arguments.

would survive; it is our task to discover why; (d) 'long-protracted': long as it is, Aratus' poem is short compared to the epic of Apollonius Rhodius; yet it contains the seeds of a much longer work; we are reminded that even had Homer had a heart of bronze, ten mouths, ten tongues, and a voice that never tired he would not have been able to articulate his message<sup>74</sup>; the bee, to which Hellenistic poets were compared, is renowned for its ability to secrete an abundance of pollen into honeycomb cells; sampling the sweetness from even one cell of Aratus' hive takes a considerable length of time<sup>75</sup>.

Lastly, the etymological meanings of 'πολυχρονιον' will prove to be the most revealing: (1) 'very long-tarrying'<sup>76</sup>: this we suggest evokes the number of long syllables to be found in the text; whilst 159 of Aratus' lines end in two spondees ('spondeiazontes'), we suggest the poet is also referring to short syllables that will be treated as long in the 'deformed' or 'unseemly' versions of his hexameters<sup>77</sup>; (2) the word 'χρονος' ('metrical quantity') lies at the root of 'πολυχρονιον' which will therefore convey the meaning 'of many metres'; this is very specific and sets the seal on the remarks in the previous entry; time, always a relative concept, is particularly relative for Aratus whose quantities flouted the *schema* he was technically bound to respect.

Whilst these remarks go some way to explaining why we should be tolerant of the inability of 'περίχυδα' to fit the metre<sup>78</sup>, nevertheless a further remark is in order. The adverb 'περίχυδα' etymologises as 'περί / χυδαν' which *inter alia* produces the meaning 'wholly prosaic' 'wholly unfettered by metre'. The phrase 'τα χυδαν' ('prose') is the opposite of 'τα μετρα' ('verse'). Thus the convergence of the 'Asses' in the shape of 'περίχυδα' creates its own poetics. Even as 'περίχυδα' is formed, it proclaims its prosaicness within the surrounding 'feet'. Its etymological sense of 'complete drenching' is accompanied by another nuance of 'thoroughgoing unmetrality'.

### **The Empirical Prognostica: Swallows and Frogs:**

We turn now to the swallows and frogs which, in Aratus, precede the passage relating to the cows, and which will be shown to have their own connection to 'soft-footedness'. The reputation of swallows as indicators of rain is well-founded. The saying 'low flies the swallow, rain to follow' epitomises the bird's usefulness to the farmer. The science behind the saying would suggest that before rain, when atmospheric pressure is low, insects, in the absence of thermals by which to ascend, are obliged to remain closer to the ground. In their turn the swallows are then obliged to fly lower to catch them. Alternatively the phenomenon can be explained by the insects sheltering beneath leaves in bushes to avoid the rain with predictable effects on the swallows' movements. Aratus'

<sup>74</sup> *Iliad* 2.488-490

<sup>75</sup> See further Francis Cairns *Tibullus; a Hellenistic Poet* (1979) pp.6-7 and notes 23 și 24

<sup>76</sup> See Callimachus *Epigrams* 29 (Loeb) for Aratus' 'long-tarrying' into the night. Note too Aratus' 'λεπτοτης' here and his [literal] 'turning' ('στροφος': line 1). In line 4 the adjective 'συντρονος' is elsewhere used of the 'harsher' Muses as opposed to the 'softer' ones. It also conveys a tight-stretched 'intensity'(of meaning).

<sup>77</sup> See further Kidd (1997) pp.33-36

<sup>78</sup> The 'υ' is now short in quantity at a point where a long syllable is required.

swallows appropriately strike the water with their stomachs as a sign of their low trajectory as they fly around the lake (945). Whilst they are not said to catch their prey, it is hard to imagine that Aratus is not alluding to their observable behaviour in advance of rain. This is a small sign of Aratus' interest in an empirical agenda. However it is also possible that he is alluding to a subsidiary meaning of the word for 'swallows' ('χελιδόνες'). These 'χελιδόνες' are flying fish (*Exocoeti*) which become airborne by 'smiting the water' repeatedly ('γαστέρι τύπτουσαι αὔτως εἰλυμένον ὕδωρ': Aratus 945)<sup>79</sup>.

If Cicero's had translated Aratus' lines on the swallows, that passage has not survived. However the words of both authors on the frogs have survived. Cicero uses the verb 'cietis' to articulate the frogs' activity<sup>80</sup>. However there are several ways of interpreting 'cietis'. It could mean 'by your discordant sound you *summon* or *call forth* springs and ponds'. This suggests the quasi-incantatory effect of the frog-song on the appearance of standing water, a phenomenon which will require the rain to fall in the interim. However 'cietis' could also be an unprecedented but entirely logical future tense deriving from 'cio, cire' ('you will summon, produce'). This future tense is signalled by a periphrastic future<sup>81</sup> in the first part of the 'cum' clause ('cum clamore paratis... fundere voces ... cietis': 'when you are about to pour forth your utterances with a clamour, and when you are on the point of calling forth the springs and pools ...'). Under both interpretations of 'cietis' the frog-song will trigger rainfall.

However the combination of future tenses will throw heavy emphasis back onto the present tense of the verb 'videtis' in line 1. The reader is anxious to know what signs ('signa') the frogs are looking at 'when they are on the point of pouring forth cries and about to summon the pools'. For this we turn to nature itself. In advance of their spring mating calls, the male of the common frog species will develop a dark brown or black shading on the inner fingers, those with which the female will be clasped during *amplexus*. In this context, our 'alumnae' will equate to the female frogs that 'see' the male markings and are attracted. However, technically, all frogs are feminine in the Latin Language ('rana') and one could therefore make the case that the males ('alumnae') also see the female markings. In fact the female common frog in her turn develops a deeper colouring in her eyes and on her throat during the mating season. In Cicero's text meanwhile the word 'signa' will now take on the specific meaning of 'body markings'. Like the night sky, the text rotates. The passage has metamorphosed into a chronological survey of the frogs' mating season which begins with visual changes in both sexes.

If now with our mind's eye we read the verb 'cietis' as a present tense with a different meaning we obtain the following sense: '[you frogs] *are disturbing* or *stirring up* the ponds and springs [i.e. the existing waters]'. Here Cicero may also be thought to

<sup>79</sup> LSJ suggest instead that 'dactyloptera' is the species of fish to which the name 'swallow' has been given.

<sup>80</sup> Cicero *Prognostica* IV 1-3: 'vos quoque signa videtis, aquai dulcis alumnae /cum clamore paratis inanis fundere voces / absurdoque sono fontis et stagna cietis'.

<sup>81</sup> We interpret 'paro' with the infinitive as though it were 'μέλλω' plus the infinitive. See W.M. Goodwin *A Greek Grammar* (1959) section 1254.

have allowed 'absurdo .... sono' to become a dative of purpose<sup>82</sup>. The sentence runs as follows: 'when you make ready to pour forth your vain sounds in a cry and you disturb the springs and ponds for the production of your discordant sound'. This makes good sense. The rains have fallen and the frogs are making preparations to unleash their mating calls. The notion that the frogs disturb existing water *in advance of* producing their song (not during it) alludes to a very specific aspect of batrachian behaviour as described variously by Aristotle, Plutarch, Aelian, and Pliny<sup>83</sup>. Pliny explains that in the breeding season the male frog will bring his lower lip to the surface of the pond and scoop 'a reasonable amount' of water [= 'disturb the water'] into the back of his mouth. He will then cause the back of his tongue to vibrate within this water thereby producing song. Thus the verb 'paratis' ('you prepare') becomes highly specific. It is the disturbing of the water in order to draw it into the mouth that constitutes the frogs' preparation to sing. In the meantime, whilst such preparation should imply that it has already rained, of equal moment is the fact that Pliny uses the technical word 'ololygones' to describe frogs specifically when they 'ululate' using their tongue in the water<sup>84</sup>.

Thus the alternative narrative is the one that articulates Cicero's empirical poetics. Cicero takes advantage of a double meaning to leave the reader with a choice of opposites. Either frog-song stimulates the rain, or the rain stimulates frog-song. Cicero's text operates on two polarised levels simultaneously. The irony is that Cicero, the scientist, uses double meanings ('oracular meanings') to access and articulate his sober, empirical agenda.

This agenda constitutes a reaction to Aratus' treatment of frogs and the 'ololygon', creatures which in his hands had become separate entities. Aratus' 'ololygon' abandons its sexually-charged, reptilian character and retreats to sing a lonely refrain. Here Aratus is putting new flesh and bone as it were on the prototypical Aristotelian sense of 'ololygon' as the [feminine] 'cry' of the male frog during the mating season<sup>85</sup>. Cicero

<sup>82</sup> See below

<sup>83</sup> See Aristotle *Historia Animalium* 536a11 ; Pliny the Elder *Historia Naturalis* 11. 173: 'inferiore labro demisso ad libramentum aquae modice receptae in fauces palpitante ibi lingua ululatus eliditur'; Aelian *Natura Animalium* (9.13); Plutarch 982e.

<sup>84</sup> At *Ad Atticum* 15.16a Cicero confirms his scepticism vis-à-vis his *Prognostica*. He hears frogs blurting like orators and is concerned that his *Prognostica* might be all too true. Clearly his tone is ironic.

<sup>85</sup> Whilst Aratus' 'ololygon' may technically be a tree-frog, this frog's lonely voice is emblematic, we suggest, of the retreat of its original meaning to a place where it cannot be accessed by grammarians or poets intent on giving it a new interpretation. As if to press home the point, Theocritus tries to eternalise the status the 'ololygon' had had when it was the voice of a frog. He entombs his 'ololygon' in 'thick thorns of brambles' (*Idylls* 7.139-140) rendering it effectively a disembodied voice. However, even there the creature is not safe from an attempt by Cicero to rename it. Cicero's 'acredula' is the Theocritan/Aratean ololygon in all but name. Yet Cicero also pays a handsome compliment to these two authors. The *acredula* may be interpreted as singing its own very sad song 'even now from the hedge' ('saepe etiam': *Prognostica* IV.4). 'Here Cicero alludes to the Theocritan 'ololygon' still calling 'even now' 200 years after Theocritus' description. Cicero is content that the bird should remain inaccessible and he applauds the 'perpetuating' work of Theocritus. The word 'saepes' often alludes to a thick thorny hedge. This is succinctly proved by Pliny's observation that 'they sow thorn-bushes to make a hedge' (NH 17.62). Ovid's *Perdix* lays eggs in such hedges proving they were thick and safe from predators (Met 8.258). See also Curtius 5.2.24. Lastly the *acredula*'s monotonous morning call (as reproduced in verse by Cicero's 'vocibus instat / vocibus instat': IV.5-6) reminds one of the collared dove. Whilst this bird is reported to have spread westwards from India as recently as the last century, nothing prevents it having been driven

however, turns his face against this development. He amalgamates this Aristotelian voice with the Plinian male 'ololygones' through the alternative nuance of 'cietis' ('you disturb the springs for the production of your discordant song'). In other words, both the specific sexual persona of the 'ololygon' which Pliny's sources had handed down to him, and the voice that was the 'ololygon' of Aristotle's sources, are seen and (are about to be) heard in the frogs' pre-mating behaviour in Cicero. By dint of 'cietis' meaning 'you disturb the water', Cicero turns back the clock and allows these meanings of the word 'ololygon' to re-express themselves at a subtextual level.

Furthermore, although in his next omen of rain Cicero presents a solitary female creature whose behaviour *does* evoke Aratus' female 'ololygon', this creature has by now metamorphosed into the 'acredula'. We are once again then in the presence of a word ('ololygon') that will remain forever in the south polar regions of the text. The 'ololygon' is fated never to be seen in Cicero's lines yet its presence in the penumbra of the text is more multifaceted than many other 'signs' that make their appearance in person. Its absence as a word symbolises its diffuse and indeed incorporeal identity in the literature<sup>86</sup>.

### The Horse's Frog:

The thread of our discussion leads back to Cicero's soft-footed cows. Greeks used their words for 'swallow' and 'frog' to define the same, very particular phenomenon, namely 'the frog on the sole of a horse's hoof'. This 'frog' is divided in two by a central 'sulcus' resembling the shape of a swallow's tail. Meanwhile, a real frog, like the horse's frog, is also triangular in shape, somewhat rubbery and glossy in texture, and with prominent 'thighs' or 'bulges' that mark the bottom corners of its triangular form. In sum, the terms 'frog' and 'swallow' in Greek have one thing in common: they both mean, and resemble, the frog of a horse's hoof. Now Aratus must have noted the sub-textual connection between these creatures, since his passage on frogs immediately follows that in which he describes the swallows. Once again then the signs lead to an invisible phenomenon<sup>87</sup>. Yet it is not entirely invisible. For it must occur to the reader that the 'soft fourth foot' ('καὶ μόλα' = 'μόλακαί') in line 952, may have been a deliberate device of Aratus' in order to signal *his* understanding of the soft-footed, equine connection between the swallow and the frog.

Now it is the keratin in the hooves of cattle that gives them their hardness. The hoof's border is especially resistant to wear. In sheep and goats the hoof is similarly

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to India in the first place by the insatiable Roman appetite for cheap sacrificial victims. After all, in more recent times the Passenger Pigeon was rendered extinct by excessive exploitation. The rhythm of 'instat / vocibus' (spondee / dactyl) in particular evokes the longer call of the collared dove with its heavy stress on the syllable '-stat'. European mornings have grown ever more the preserve of the plaintive song of the collared dove since the bird's inexorable migration started in earnest in the 1930's.

<sup>86</sup> Note that Aelian (*NA* 9.13) twice refers to the ololygon as a 'shout'. This informs our translation given above. The word 'inanis' ('vain': IV.2) will also gain focus from this reassessment. When a female frog approaches the male pool, she is often alone facing a barrage of males intent on copulating. Of the dozens of male frogs who make the attempt to engage in '*amplexus*', the vast majority will fail to achieve the object of their ololygonal cry. Their calls will be 'in vain'.

<sup>87</sup> Note the recurrent allusion in Aratus to two things combining into one (243, 459, 1143).

hard. However given the elasticity of the horse's 'frog', it seems reasonable to describe horses as 'soft-footed' or certainly 'pliant-soled'. Meanwhile Aratus's swallow and frog point, as we have seen, to the horse's hoof. Xenophon in his work 'On Riding' ('Περὶ ἵπικῆς') three times uses the word 'swallow' to define a horse's frog. He characterizes this 'swallow' as 'the softest part of a horse's hoof'<sup>88</sup>. The same author notes that this 'swallow' can be strengthened if gravel is scattered in the stable yard<sup>89</sup>. The Byzantine text *Geoponica* (16.1.9) meanwhile, chooses the word 'frog' to convey the meaning of 'horse's frog' ('βάτραχον μικρόν, ὄνυχια στερεόν'). Here the chiasmic antithesis of 'hard hoof' and 'little frog' at very least hints that the 'frog' is soft. In sum, of all quadrupeds, the horse is the best-qualified candidate for the title 'soft-footed' ('mollipedes').

Cicero, for his part, in describing cows as 'mollipedes', must have hoped to expand the pre-existing Aratean connection between swallows and frogs to the soft-footedness of cows by way of the subtextual channel provided by the soft frog of a horse's hoof. This thread will have been further extended by the intellectual rhyming of 'mollipedes' and 'millipeda'. But Cicero was facing an insurmountable problem, one which Aratus avoided by not giving his cows an adjective. Only horses have soft frogs. Only they are entitled to call themselves 'soft-footed' within this thread of associations that leads from the swallow to the millipede. The word 'mollipedes' as applied to cows must have constituted an impasse for Cicero's successors as translators of Aratus. They will have wished to avoid compromising their learnedness by attaching equine soft-footedness to a bovine context.

### **Mollipedes: Cicero's Empirical Agenda:**

Yet it is not the case that Cicero has made a mistake in calling cows 'mollipedes'. When a cow has been exposed to even a relatively short period in the rain, the keratin in their hooves softens, just as human nails soften in a hot bath. Although the edge of the cow's hoof is more resistant, the rest is vulnerable to saturation. In fact Plutarch alludes to this condition in his work 'De Serā Numinis Vindictā' (16: 'καὶ τῶν βοῶν, ἃν εἰς τὰς χηλὰς μαλακιῶσι, προσαλείφειν τὰ ἄκρα τῶν κεράτων'; 'and [it is not an act of injustice] to besmear the tips of the horns of cattle if they have grown soft in the hooves'). Clearly this was a well-known syndrome with a well-known form of alleviation<sup>90</sup>. Thus we can rescue - and indeed, further - Cicero's reputation if we suppose that his cows have spent a period standing in a flooded field, perhaps in one of the fields drenched by Phatne's disappearance (Phaenomena 902). In this case, the adjective 'mollipedes' ('soft-footed') will be very specific and contextualized in time. It will not allude to a trait of cows in general but to a temporary condition. This condition is precisely paralleled by the status of frogs as 'ololygones' during the course of the breeding season.

<sup>88</sup> *On Horsemanship* 1.3: 'τὴν χελιδόνα...τῷ μαλακωτάτῃ τοῦ ποδός':

<sup>89</sup> *On Horsemanship* 4.5: 'πόρρω ὀπὸ τοῦ δαπέδου ἔχουσι τὸς χελιδόνας δὲ τῶν ποδῶν οἱ οὔτω κεχυμένοι λίθοι στερεοῦσιν'.

<sup>90</sup> See Varro *Res Rusticae* 1.23.6 on Rosea's industrial production of cattle shoes, presumably to protect the cows' feet: 'ubi cannabim, linum, iuncum, spartum, unde nectas bubus soleas'. The hemp at Rosea grew taller than the fruit trees suggesting it was needed (and used) in bulk (Pliny *NH* 19.174).

Like a turning kaleidoscope, Cicero's vignette of the cows evolves into a critique of country life centred upon empirical observation. From a perspective in which cows merely serve to create omens of interest to rain-watchers, we are now in the presence of cows who have suffered foot-rot thanks to a previous cloud-burst<sup>91</sup>. The cows stare at the stars of the sky suggesting that the rain clouds have long since blown-over. In reality foot-rot is a symptom of the conditions caused by rain. It is not a sign of rain to come. Whether the farmer profits or does not profit from the cows as signs of coming rain is revealed as a sideshow. Cicero's real concern is focused on the suffering of animals and the short-sightedness of those who do not think to provide, for instance, paved stalls to prevent the wet conditions causing 'soft-footedness'<sup>92</sup>. In sum, Cicero's cows are indicators not that it will rain but that it has rained. It is the rain that has passed that constitutes the 'unobservable cause' of their symptoms. Cicero's cows are victims of weather at the same time as they are portents of the weather. Indeed in Cicero's scientific *Prognostica*, the cows, like the wind-blown sea and the frogs, are the source less of 'praesensiones' than of empirical information about the effects of meteorological phenomena.

In this passage Cicero's empiricism seems to take on an ethical mantle. We began this work suggesting that *Prognostica* might suggest 'things susceptible to being understood in advance'. The thrust of this interpretation is that it is one thing to learn that the cause of foot-rot consists in exposure to waterlogged conditions underfoot. However it is another thing to act on that knowledge so that the problem does not arise. Similarly, to know that seas are disturbed by wind is the first step towards having the good sense to stay in harbour when the winds are rising. Better still would be to watch Phatne for signs of wind before it rises.

However on a strictly lexical level, Cicero cannot have his cake and eat it. The connection between swallows, frogs, and a transient state of softness affecting cows' hooves is ultimately flawed. No matter how soft it becomes, a cow's hoof will never become a horse's hoof. We can summarize the difficulty succinctly: without the presence in the text of some reference to a horse's foot (not necessarily in the capacity of an omen of rain), the thread that binds swallow to frog to cow to millipede cannot be spun continuously<sup>93</sup>.

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<sup>91</sup>.Note that the meaning of Praesaepe is 'a cow's stall'. There are a host of subtle links that bind the texts together.

<sup>92</sup> See Varro *Res Rusticae* 2.5.16: 'Cum creverunt vituli, levandae matres pabulo viridi obiciendo in praeseptis. Item his, ut fere in omnibus stabulis, lapides substernendi aut quid item, ne ungulae putrescant'.

<sup>93</sup> In fact a horse's hoof does surface in the text of Aratus and may well have appeared in Cicero's *Phaenomena* had the relevant lines survived. In Aratus the forefoot of the winged horse Pegasus strikes the rock from which the Hippocrene spring gushes (219-220). Here a source of water is caused, not signalled, by an animal's behaviour. One is tempted to suggest that 'πληγῆ προτέρου ποδός' (220) means 'by a blow with the front of its foot' rather than 'with its forefoot'. This is an unprecedented use of 'πρότερου' but it would suggest Aratus was conscious of the vulnerability of the horse's frog at the rear of the hoof. The equivalent of 'πρότερου' in Latin ('prioris') can bear this meaning.

### 'Mollipedes' in Theocritus:

Nevertheless Cicero's 'mollipedes' is an epithet that alludes to 'soft-footedness' in other works of Classical Literature. The equivalent in Greek is 'μαλακὰι ποδᾶς' ('of soft feet') which is found at Theocritus 15.103 where the author uses the phrase to describe the 'Ἵραϊ' ('Hours', 'Seasons'). To trace the earlier history of the Hours will repay our efforts. In the Iliad, the gates of heaven are supervised by the Hours who have the power to open or shut the thick cloud (Iliad 5.749-51). Later, the Hours will come to be considered goddesses who bring benefits to people in general (Theocritus 15.105). By the age of Cicero they had become the Hours of night, which reminds us that Cicero's cows are watching the stars<sup>94</sup>. In Virgil they drive the Night forwards ('Nox acta Horis': Aeneid 3.512). These aspects of the Hours are distilled into Cicero's vignette of the cows. Although drenched by rain the cows watch the stars driven round by the Hours. The visibility of the stars in the ether means that the Hours in the firmament must have opened [that is 'dispersed'] the thick cloud which had brought the rains responsible for the softening of the cattle's hooves. The moment when the cloud is opened is described by Homer at Iliad 8.558 and 16.300. From the heavens, the Hours break open the ether to the view from below. In sundering the cloud from above in order that the armies at Troy may see the ether, the Hours use the same technique as that which now allows the cattle to see the entire sky<sup>95</sup>. True to their Theocritan characterisation, the Hours bring a boon to the cattle who gain respite from their suffering<sup>96</sup>.

### 'Mollipedes' in Herodotus:

In Greek there is another word that means 'with soft feet'. When Croesus, King of Lydia, addresses the Oracle of Delphi for the third time he is told his reign will last until 'the Lydian with soft feet'<sup>97</sup> is forced to flee when a mule ascends the Median throne. Here the adjective 'ποδαβρέ' reminds us that Cicero's cattle suffer from the scourge of soft feet in contrast to the soft-footed luxury of the Lydians<sup>98</sup>. But our interest focuses mainly upon the oracular ambience of the episode. Herodotus' oracular response has one accessible meaning and one that is enigmatic. In fact far from being impossible for a mule to ascend the Median throne, the mule proves to be Cyrus, the king of Persia. Just as a mule is a hybrid of different species, so Cyrus' father and mother are Persian and Median respectively. And, just as the notion of 'soft-footed cows' seems to be an impossibility but proves to be all too real for the cows, so the mule as king is a concept that comes back to haunt Croesus whose power is destroyed by Cyrus. Thus the

<sup>94</sup> The opening of the thick cloud creates clear conditions whilst the closing of the cloud leads to rain.

<sup>95</sup> Iliad 8.558;16.300: 'οὐρανόθεν δ' ἄρ' ὑπερράγη ἄσπετος αἰθήρ'; 'the word 'from heaven' locates the Hours by heaven's gates where we would expect them to be (Iliad 5.749-751). The verb 'ὑπερράγη' should be compared to e.g 'ὑποβλεπω ('I look up from below [eyebrows]'). It should be translated 'to be torn open to view from below'. See note 35 on the name 'Hours' as deriving from the verb to 'divide'.

<sup>96</sup> The Rosean plain in Umbria was notorious for its dew as Festus mentions in his etymological explanation of the word 'Rosea': 'quod ... arva rore humida semper serventur' (p.283.5-6 M. reading 'serventur'). The cattle there, as we have seen, were provided with shoes.

<sup>97</sup> 'Λυδὲ ποδαβρέ': Herodotus *Histories*1.55.2

<sup>98</sup> See Herodotus *Histories* 1.71.2

Herodotean passage stands as a touchstone of the oracular methodology required to access the 'sign-laden' text of the *Prognostica*.

In sum, in the history of ancient literature the word 'mollipedes' never recurs, perhaps because of a single discrepancy. Yet had Cicero not used it we would have lost a wealth of information about the literary substructures of didactic literature. 'Mollipedes' is a sign which not only transmits its multifaceted signal across Cicero's text but also engages with other works of Classical Literature. It may also stand as the totem of a poetics that seeks to undermine the most sacred tenet of Greek and Latin poetry: the sacrosanctity of the metre.

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### About the author

From 2000 Mr. **Barney McCullagh** is Course Tutor and Lecturer in Latin at Madingley Hall, Extra-Mural Department, University of Cambridge, UK (2000-present). He was Lecturer for Adult Education (ceramic Greek and Romanian culture): St Mark's Community Centre, Cambridge, UK (1995-1996); Professor of Latin, Head of Section: High School, Watford Girls 'Grammar School' Watford UK (1985-1994) and Latin teacher, Head of Department: College Felixstowe, UK (1981-1984). His main research starting from 1994 is *The poetry of Ovidiu*