

GREEK CHRONOGRAPHY IN ROMAN EPIC: THE CALENDRLICAL DATE OF THE FALL OF TROY IN THE *AENEID*

The last chapter of Politian's first *Miscellanea* dealt with the *amica silentia lunae* through which the Greeks sailed back to Troy (*Aen.* 2.255). He argued that the phrase should not be taken literally, as a statement that Troy fell at the new moon, but in an extended sense, as a poetic indication that the moon had not yet risen when the Greeks set sail.¹ This reading had one merit: it explained how Virgil's moon could be silent while the Greeks were en route but shine during the battle for the city (*Aen.* 2.340). Yet Politian's effort to identify the phase of the moon described by Virgil was anything but clear:

Non igitur aut sera fuerit aut pernox luna, tum nec lunae quidem omnino coitus, sed tempus arbitror potius quamdiu illa non luceret.²

Accordingly, though his arguments were sometimes repeated by commentators and teachers,³ they won little assent from scholars who occupied themselves seriously with the passage. In his *Adversaria* Turnebus took *silentia lunae* as referring 'ad noctis taciturnitatem... non ad interlunium'.⁴ In the first chapter of his *De rebus per epistolam quaesitis* Giano Parrasio sharply criticised the fuzziness of Politian's explanation: 'Ambages istae sunt, ambages'. More important, he quoted a line from the *Little Iliad*:

νύξ μὲν ἔην μέσση, λαμπρὰ δ' ἐπέτελλε σελήνη.

This he rendered 'Nox erat intempesta, nitebat et aurea coelo Luna', and inferred from it that the moon had been up when Troy fell.⁵ In his *Virgilius collatione scriptorum Graecorum illustratus*, finally, Fulvio Orsini published a scholium on Euripides' *Hecuba*, one which quoted both the line from the *Little Iliad* and an analysis of it by the Peripatetic Callisthenes. He too took the line as refuting Politian.⁶

One commentator, Johannes a Meyen, tried to show that Politian's argument could be saved: 'Atque hoc ipsum [Politian's view] cum Leschis verbis consentit: . . . Nondum enim luna lucebat, cum illi a Tenedo sub vesperam navigabant, sed statim urbe capta

¹ *Miscellanea* 1.100 (1489) [o vi^r – p^r], repr. e.g. in *Lampas*, ed. J. Gruter, 1 (1602), 116–17; quoted and analysed by A. di Prima, 'Tacitae per amica silentia lunae', *Paideia* 6 (1951), 277–90 at 285–6; cf. R. V. Cram in *CP* 31 (1936), 253–9. Politian's point is that *silens luna* is normally a technical term for the moon's conjunction with the sun or interlunium, as in Pliny, *N.H.* 16.190.

² *Miscellanea* (1489) p^r.

³ Politian's argument is tacitly accepted by C. Landino *ad loc.* (ed. Venice, 1520) [HH v^r] and simply incorporated word for word into the standard commentary by Jodocus Badius Ascensius (ed. Paris, 1507), fo. 261^v. It was also accepted by L. Hortensius, *Enarrationes* [1559] (ed. 1596), col. 321, and an annotated copy of the Tiguri 1547 Virgil now in Princeton (VRG 2945.1547) contains the note: 'silente pro non lucente'.

⁴ In what follows we treat arguments in the order of their appearance in print; in this case A. Turnebus, *Adversaria* (1564–5), 12. 5, accepted by G. Vaillant *ad loc.* (1575), 204, whose summary we quote.

⁵ A. G. Parrasio, *De rebus per epistolam quaesitis* 1 [publd. 1567], in *Lampas*, ed. Gruter, 1, 725–8 = di Prima (n. 1 above), 286–9, drawing on schol. Lyc. 344.

⁶ Ed. 1747, 273–4, quoting the scholium to Eur. *Hec.* 910 (modern text in the OCT Homer, [1961], v.132 [*Ilias parva* 12] = *FGrHist* 124 F 10 = F. Jacoby, *Das Marmor Parium* [1904], 148–9).

lucere coepit'.⁷ But the authority of this poor corrector, of whom his contemporaries thought little and we know less, could not outweigh those of Turnebus, Parrasio and Orsini – far less that of Joseph Scaliger, who argued only a few years after a Meyen wrote that Troy fell 'in plenilunio, fine Veris, paulo ante solstitium, anno Mundi 2767'.⁸ The views of Parrasio and Scaliger were summarised in Fr. Taubmann's influential commentary and boiled down to a more manageable size in the school text of Farnaby and the variorum editions of Schrevelius.⁹ They became the vulgate explanation.

Aeneid 2.255 has remained a *locus desperatus*, and many efforts have been made to explain its relation to the *Little Iliad*.¹⁰ But the later history of the problem has seen few efforts to grapple with all of the evidence. Commentators on epic have concerned themselves only with the *Little Iliad* fragment, not with the commentary on it by Callisthenes that Orsini discovered. Students of Greek chronography have repeatedly studied the fragment of Callisthenes and related passages in other Greek historical works, but not the passage in Virgil that first drew modern scholars' attention to the state of the moon on the night when Troy fell.¹¹ In fact, in this as in many other cases *ποιητής* and *κριτικός* must be studied together if one hopes to understand either.

The line from the *Little Iliad* means 'It was the middle of the night and a bright moon *epetelle*'. Clement of Alexandria, from whom Parrasio derived the line, took it as evidence that Troy fell *πληθυσούσης σελήνης* (*Strom.* 1.104). Evidently he thought that *epetelle* meant 'shone' or something of the sort, and Parrasio followed him when he rendered it by *nitebat*. But as Scaliger wrote, 'pace eruditissimi scriptoris, ἐπιτέλλειν non significat lucere, . . . sed oriri et incipere apparere'.¹² The line must be rendered: 'It was the middle of the night and a bright moon was rising'.

This interpretation is confirmed, and its significance is made plain, by the Euripides scholium mentioned above:

Callisthenes writes as follows in *Hellenica* 2: 'Troy fell in the month Thargelion, on the twelfth of the waxing month according to some historians, but on the eighth of the waning month according to the author of the *Little Iliad*. For he fixes the fall by saying that Troy was seized when

It was the middle of the night and a bright moon was rising.

But it rises at midnight only on the eighth of the waning month, and on no other night.'¹³

The last sentence makes the crucial point. The moon rises more or less with the sun at new moon, around midday at first quarter, around dusk at full moon, and around midnight at third quarter. Since the verse from the *Little Iliad* set moonrise at midnight, Callisthenes – or his source – inferred that Troy fell when the moon was at third quarter, around the 8th day from the end of a lunar month.

⁷ Ed. 1580, 231. For a Meyen see B. Schneider, *Vergil. Handschriften und Drucke der Herzog August Bibliothek* (1982), 79–81. His edition first appeared in 1576; this note is clearly provoked by Parrasio or Orsini, and rewrites Politian.

⁸ Scaliger, *De emendatione temporum* (1629³), 376–80 as summarised by Fr. Taubmann *ad* 2.255 (1618), 451.

⁹ Cf. the first Schrevelius variorum (1646), 355, Farnaby (1650), 129, and the second Schrevelius (1652), 324.

¹⁰ See e.g. the comms. on *Aen.* 2 by V. Ussani jr. (1952) and R. G. Austin (1964) *ad loc.*; the former is more helpful.

¹¹ Thus Allen's collection of passages in the OCT Homer (n. 6 above) omits Dion. Hal. *R.A.* 1.63, which, as will appear, is crucial for the chronological argument; Jacoby by contrast has Dionysius but omits Virgil. A. Böckh used all the texts in *CIG* 2 (1843), 327–30, as the foundation for a brilliant reconstruction which we discuss below (and which we regretfully reject).

¹² Scaliger (n. 8 above) 378. For this sense of the word see *LSJ* s.v., (B).

¹³ For the text see the editions cited in n. 6.

Parrasio and Orsini, in short, were wrong to think that their new evidence refuted Politian. As Johannes a Meyen saw, the *Little Iliad* does not state that the moon shone all night. And further evidence that neither Politian nor his critics considered is also relevant. The Euripides scholium does not answer one obvious and vital question: how did one know *which* lunar month was that of the fall? The *Little Iliad* line reveals nothing about the season, much less the Attic month. But another passage – one connected with the scholium long ago by Scaliger and Casaubon¹⁴ – suggests an answer. In *Roman Antiquities* 1.63 Dionysius of Halicarnassus writes:

Ilium was taken at the end of the spring, seventeen days before the summer solstice, and the eighth from the end of the month Thargelion, according to the calendar of the Athenians; and there still remained twenty days after the solstice to complete that year (tr. E. Cary).

During this period of 37 days, Dionysius presumes, the Greeks busied themselves with arranging the affairs of the city, receiving embassies, and concluding a treaty, before setting sail at the beginning of the new year. The Trojans, he says, set sail at about the time of the autumnal equinox. All of this suggests rather specific information, presumably derived from earlier historians who in turn had made precise chronological deductions from stray remarks in earlier epic sources. Somewhere in the literature that Dionysius drew on, the argument was advanced that the third quarter when Troy fell preceded the summer solstice by 17 days – and therefore came in the penultimate month of a normal Attic year, Thargelion.¹⁵

Before we can try to fix the date and identify the author of this argument, however, we must examine still other sources that also give the exact date of the fall of Troy. In particular, Plutarch – in his immortal discussion of unlucky days in *Camillus* 19 – says that Thargelion has been a bad month for barbarians. Among other misfortunes, Troy fell on the *seventh* day before the end of the month according to Ephorus, Callisthenes, Damastes and Phylarchus.¹⁶ This date cannot simply be a textual error or the result of a slip on Plutarch's part, for it also appears in the Parian Chronicle.¹⁷ And in fact, since Thargelion could be taken as either a 29-day or a 30-day month (it can assume either value, in alternation with Skirophorion), both the seventh and the eighth day could fit the chronology given by Dionysius. Fig. 1 illustrates both possibilities. In it the beginning of the month at new moon – that is, first visibility – is N; full moon, which we have placed by convention on the 14th day, is F; first and third quarters are 1/4 and 3/4, and the summer solstice is S. In each case the third quarter of Thargelion precedes the solstice by 17 days and 20 more days remain until the end of the year. Since both dates are possible, neither can be dismissed out of hand, and we make no choice between them.¹⁸

How then was the general dating found in Dionysius arrived at? Böckh offered a remarkable reconstruction in *CIG* 2, 330. He projected the Metonic Cycle – as reconstructed by Ideler – back to 408 years before the first Olympiad – that is, to 1184/83 B.C., the traditional year of the fall of Troy according to Eratosthenes and

¹⁴ See Casaubon on Dion. Hal. *R.A.* 1.63 (1588); Scaliger, *Thesaurus temporum* (1658²) *Συναγωγή* 376.

¹⁵ For Dionysius and his sources E. J. Bickerman, 'Origines Gentium', *CP* 47 (1952), 65–81 remains fundamental; further references appear below.

¹⁶ *Camill.* 19.7 = *FGrHist* 124 F 10 b.

¹⁷ *FGrHist* 239 A 24.

¹⁸ The standard explanation is that the two dates actually refer to the same night, the one between 23 and 24 Thargelion; the difference would then reflect different starting-points for the day rather than a substantive disagreement. But since all the names associated with the dating are those of Greeks who would start the day from sunset – and since starting the day at midnight would not in fact produce this disagreement – the explanation has no merit.

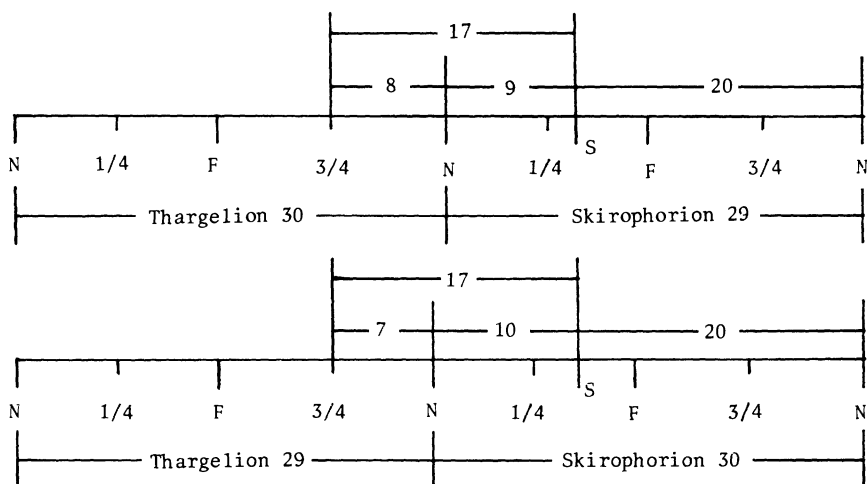


Fig. 1

other ancient sources. He found that his reconstruction agreed with the first of our schemes, setting the third quarter on the eighth day before the end of a 30-day month. Even more remarkably, he found that the summer solstice fell on 9 Skirophorion, exactly 17 days later. However, we cannot see how he managed to locate the solstice in the Cycle some 750 years before Meton's observed solstice on 13 Skirophorion (27 June 432 B.C.), and we very much doubt that any ancient writer, however inclined to scientific accuracy, would have attempted a long-term backward projection of the Metonic Cycle with both a fixed pattern of intercalary months and a fixed sequence of 29-day and 30-day months.

In fact, though Scaliger and Böckh assumed that Dionysius' source meant to fix the *year* of the fall, the texts that mention the dating treat it only as an effort to fix the position of the fall within the year. It seems likeliest to us that the passage from the *Hellenica* quoted by the scholiast on Euripides and the related passage in *Roman Antiquities* 1.63 both formed part of a larger, connected argument about the calendrical date, not the year, of the fall. This argument rested partly on the careful inference from a line of the *Little Iliad* that the scholiast preserved and partly on an interval between the date of the fall and the beginning of summer – probably also derived from an epic source. Now, no extant source explains the interval of 17 days. Indeed, 17 is not in itself a number obviously likely to inspire poets and chronographers. It is hardly a key number in numerology – though any number can figure in that absorbing pursuit – and it has no significance in later Greek astrology.¹⁹ Yet it has one crucial literary virtue. With some help from its friend the conjunction, it scans. 'Ἑπτὰ δὲ καὶ δέκα make two dactyls and appear no fewer than three times in the *Odyssey*, always at the beginning of a line and always expressing duration. In 5.278 and 7.267 Odysseus sails on for 17 days after leaving Calypso's island; in 24.63 the Greeks mourn Achilles for 17 days and nights. In each case, as part of a repetitive pattern, the interval of 17 days is followed by 'On the 18th' day (ὀκτωκαίδεκάτῃ), suggesting that we have here a canonical interval in Homeric verse. Given the care with which the creator of our argument used the line from the *Little Iliad* about the

¹⁹ Professor Momigliano informs us that in Southern Italy the number 17 is considered extremely unlucky.

appearance of the moon, it seems reasonable to conjecture that he drew the remainder of his evidence with equal precision from another line, perhaps one from the same source, in which the Greeks were described as sacking Troy – or, with greater civility as Dionysius has it, arranging the affairs of the city – for 17 days before high summer and then sailing home. The two pieces of evidence, taken together, would exactly fix the date as given in our sources.

What we have been discussing is, then, a very early attempt to establish chronology on the basis of pre-historical textual evidence – in this case, significantly, epic poetry, the traditional precursor of history, and, along with inscriptions and lists of magistrates, kings, and priests, the principal evidence that early historians had at their disposal. The fanciful date of the fall of Troy has some solid interest, since it provides evidence about the methods used by early Greek chronographers. Yet a number of questions remain unanswered. Who first carried out this deduction? For what purpose? In what context?

As to the first, the earliest authority mentioned by Plutarch is Damastes of Sigeium, a contemporary of Herodotus and pupil – according to the *Suda* – of Hellanicus, and thus part of the earliest school of Greek historiography.²⁰ This makes good sense in general terms. Hellanicus both tried to establish the chronology of the earliest Greek history, using genealogies, lists of magistrates, and above all the list of Argive priestesses of Hera, and tried to connect the history of apparently non-Greek peoples, like the Romans, with the Greek past.²¹ Moreover, the testimony of our sources, if arranged schematically, gives good reason to attribute this specific dating to Damastes. Consider the evidence:

Plutarch associates the date 7th before the end of Thargelion with Damastes; **Dionysius**, who elsewhere claims to use Damastes (*R.A.* 1.72.2), associates the date 8th before the end of Thargelion with an elaborate calendrical argument; **Callisthenes** makes clear that this argument was directed against historians who set the fall at 12th Thargelion; **Clement**, finally, makes clear that the date 12th Thargelion comes from Hellanicus.

Dionysius (loc. cit.), Pliny (*N.H.* 7.154 = *FGrHist* 5 F 5) and Valerius Maximus (8.13. ext. 6 = *FGrHist* 5 F 5) all suggest that Damastes went over ground that Hellanicus had already covered. The logical inference would seem to be that Hellanicus mistakenly took the *Little Iliad* as supporting a date near or at full moon. Damastes, however, refuted him – and to give his arguments extra elegance showed that Troy could have fallen either on the eighth or the seventh before the end of Thargelion. This thesis has a nice implication. Damastes made his pioneering historical use of the lunar calendar at exactly the historical moment when the Athenians mastered the calendar's elements. For Damastes knew and used the testimony of Diotimus, *strategos* in 433/2 B.C. – and thus was actively writing at exactly the time that Meton and

²⁰ What can be known about Damastes is set out by E. Schwartz in P.-W., s.n. Damastes (3). Rather more than can be known is set out by S. Mazzarino, *Il pensiero storico classico* (1966), i.203–7; see the gentle but definitive rebuttal in D. Ambaglio, 'L'opera storiografica di Ellanico di Lesbo', *Ricerche di storiografia antica* 2 (1980), 145. For the fragments and testimonia see *FGrHist* 5, though the texts on Homer that we associate with him are found at *FGrHist* 124 and elsewhere.

²¹ See in general Ambaglio (n. 20 above) and *FGrHist* 4. The exact nature of Hellanicus' work on the voyage of Aeneas and the origins of Rome remains controversial. The chief text is Dion. Hal. *R.A.* 1.72.2 = *FGrHist* 4 F 84. For contrasting discussions see Ambaglio 92, N. Horsfall, 'Some problems in the Aeneas legend', *CQ* 29 (1979), 372–93 at 376–83, and A. Momigliano, *Settimo Contributo* (1984), 107–9, 443–4.

Euctemon observed their solstice and Meton published the *parapegma* of his cycle.²² Callisthenes, then, comes later in the tradition, reporting (like a good Peripatetic) the arguments of his predecessors; perhaps, indeed, his *Hellenica* preserved the views of both Hellanicus and Damastes. At all events, the evidence suggests that he and Ephorus, like Phylarchus and the Parian Chronicle in the next century, merely repeated an accepted date.

The question of motivation is more difficult. On the one hand, as we have already suggested, we do not think it likely that Damastes used his calendrical information to establish a year for the fall. If he had one – and we think that entirely likely – he probably found it by counting backwards through regnal lists as far as these went and then making a guess about how much earlier the fall of Troy occurred. To take a later example, it is known that Eratosthenes counted back through king lists as far as the Return of the Heraclidae, and then assumed that the two preceding generations since the fall of Troy amounted to 80 years. This is the source of the date most often quoted, 408 years before Ol. 1, 1, the Julian equivalent of which is 1184/83 B.C.²³

On the other hand, we do have some suggestions about the general interests that propelled Damastes – though we do not consider them complete or profound. Modern scholars working on this material, from Scaliger to Jacoby, have been most impressed by the strictness of the philological reasoning and the sophistication of the scientific arguments here deployed.²⁴ The natural inference to draw would be that Hellanicus and Damastes were sensibly trying to establish a rational chronology, using whatever evidence they could lay hands on in order to fuse the traditional records, legends and stories of the various Greek states into a coherent, plausible history. But the case of Herodotus – who can hardly be accused of not knowing the requirements of history in his own time, and who clearly took little interest in exact chronology of the kind cultivated by Damastes – warns us that the real motivation may be less straightforward. Perhaps, we suggest, Damastes' date is the relic of an early approach to history, when it was still identified above all with epic poetry rather than with the independent investigations of a contemporary writer. If history was epic, chronology initially meant unravelling the order of events in an epic, dating them exactly if possible – much as Plato's amusingly conceited rhapsode Ion claimed to know, and could doubtless explain, a thousand obscure details in the Homeric poems unknown to any save a student of his single-minded dedication. No one can doubt the fascination of Homeric *προβλήματα*; Sir Thomas Browne could still write that

What Song the *Syrens* sang, or what name *Achilles* assumed when he hid himself among women, though puzzling Questions are not beyond all conjecture.²⁵

And though the surviving *προβλήματα* show little sign of an interest in technical chronology, it is hard to imagine that the subject did not come up. And if Damastes' dating really stems from such a context, then it turns out to be – like so much of the rest of early Greek chronography – the application of a marvellously precocious

²² Strabo 1.3.1 = *FGrHist* 5 F 8; Schwartz (n. 20 above) col. 2050. For Meton see G. J. Toomer in *Dict. Sci. Biogr.* s.n. Meton; as Toomer there points out, Meton's work was meant for astronomical, not civil, use.

²³ On this whole subject the most thorough and interesting discussions remain Böckh, *CIG* 2, 327–30; Jacoby, *Das Marmor Parium*, 146–9; E. Schwartz, 'Die Königslisten des Eratosthenes und Kastor', *Abh. Ges. Wiss. Göttingen*, phil.-hist. Kl. 40 (1895). Professor Momigliano suggests that Damastes may have wished to establish calendar dates for the ritual observance of anniversaries.

²⁴ Scaliger (n. 8 above) 21; Jacoby on *FGrHist* 124 F 10.

²⁵ *Hydriotaphia* (1658), chap. 5, in *Selected Writings*, ed. G. Keynes (1968), 149.

scientific method to entirely fantastic data.²⁶ A nice parallel to it is provided by the work of those medieval rabbis who scrutinised the calendrical details of the account of Noah's Flood from the standpoint of their own, sophisticated understanding of the 19-year lunisolar cycle.²⁷

If we now return to Virgil, that is to a later epic, with this entire learned tradition in mind, the poetic chronology of Troy's fall in the *Aeneid* becomes clear at once. When Virgil has the Greeks set out in the silence of the moon and the Trojans recognise one another in its light later on, he simultaneously refers to the *Little Iliad*, dates the fall to the 7th or 8th day before the end of Thargelion, and shows that the Greeks set out between sunset and midnight. And when he later has the Trojans leave on their wanderings just after the summer solstice (*Aen.* 3.8: *Vix prima inceperat aestas*)²⁸ he is pointing as clearly as a Latin epic poet can to the brief interval between the fall of Troy and the beginning of summer. *Aeneid* 2.255, then, shows Virgil not just alluding to material from the Cyclic poems but incorporating Greek scholarship based on those poems into Latin poetry.²⁹ Ironically, the material first adduced to prove Politian wrong has proved him right after all. Virgil's silent moon did rise after the Greeks set sail for Troy. And Virgil turns out not merely to have used a technical term in an elegantly extended sense but to have understood and made his own one of the most elegant, and probably one of the earliest, technical arguments ever advanced in Greek chronology.

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²⁶ The *Suda* does ascribe to Damastes a work in two books on the ancestors of those who fought at Troy; but cf. Schwartz (n. 20 above).

²⁷ There may thus be precision as well as justice in Strabo's remark that anyone who would use the testimony of Damastes would also use that of Euhemerus (1.3.1 = *FGrHist* 5 T 7). Cf. in general Bickerman (n. 15 above).

²⁸ Dionysius has the Trojans leave at around the autumnal equinox. Perhaps Damastes and Hellanicus disagreed on this point too, and Virgil follows one and Dionysius the other; or perhaps this is Dionysius' own invention. At all events, he makes clear that there was ample debate in the scholarship he used at every point (1.63.1, 1.72.1).

²⁹ Cf. R. R. Schlunk, *The Homeric Scholia and the Aeneid* (1974).