

CALENDAR STUDIES

THE OMITTED DAY

In 1961 I published two inscriptions from the archonship of Pytharatos (271/0) found in the Athenian Agora.¹ They are decrees with dates in their opening lines in part preserved and where not preserved capable of certain restoration:

Prytany XII 23 = Skirophorion 21 (δεκάτη ὑστέρρα).

Prytany XII 31 = Skirophorion 29 (ἔνη καὶ νέα προτέρρα).

I claimed the equations as proof that in a hollow month at Athens δεκάτη ὑστέρρα was not the omitted day. This seems obvious, for the date by month in the first equation is largely preserved on the stone: [δεκάτ]ει ὑστέρρα. W. K. Pritchett challenges this conclusion, and challenges also the restorations which I have proposed.² He offers no restorations of his own because, in his opinion, there are such large lacunae that nothing could be proved. It is regrettable, I think, that he has not offered at least a sample alternative restoration, if for no other reason, from my point of view, than to demonstrate how grotesque alternative restorations must be.³ The texts define a hollow month of 29 days in which there were only 9 days from the 21st to the ἔνη καὶ νέα inclusive. This month was made into a full month of 30 days by adding a second ἔνη καὶ νέα.

The year was intercalary, of 384 days, and the prytanies regularly had 32 days. There were irregularities earlier in the year which do not concern us.⁴ By the time the 21st day of Skirophorion (the last month) had been reached, simultaneously with the 23rd day of the 12th (and last) prytany, the irregularities had been resolved and the year could proceed normally to its conclusion, except only that an extra day had to be added so that months and prytanies could end together.

The months in a year normally alternated, full and hollow, each two-month period consisting of 59 days, but sometimes an extra day had to be added to keep the months closer in time with the moon or, at the end of a year, to come out even with the last prytany. The author Geminus, of the first century B.C., in his *Introduction to Astronomy* (8, 3) says of the months that the month was $29\frac{1}{2} + \frac{1}{33}$ days long, but that

¹ *The Athenian Year*, 1961, pp. 192-195, with photographs in Figures 3 and 4. The ordinal number of the prytany in the first equation should read [δωδεκ]άτης. See the photograph.

² *B.C.H.*, LXXXVIII, 1964, p. 465

³ In 'Ancient Athenian Calendars on Stone,' *Univ. of California Studies in Classical Archaeology*,

IV, 4, 1963, p. 324 note 42, he writes: 'There are, of course, quite different texts, as well as possible explanations, for the equations of the fragment published by Meritt in *Year*, pp. 194-195.'

⁴ *Hesperia*, XXIII, 1954, pp. 284-316. Cf. Meritt, *The Athenian Year*, pp. 151-152, 193.

in civic usage (πρὸς τὴν πολιτικὴν ἀγωγὴν) this was taken as by and large to be $29\frac{1}{2}$ days, each two-month period amounting to 59 days, and the months themselves in civic usage (κατὰ πόλιν) were alternately full and hollow, that is, of 30 and of 29 days. Since he also says (8, 7) that all the Greeks (ἅπαντες οἱ Ἕλληνες) managed their days and months in agreement with the moon, we learn that the rule for Athens, as well as for the rest of Greece, was one of conventionalized alternation.¹

The hollow month at the end of 271/0 was made full, but the equations show that it would have been hollow if the regular alternation had been carried out. It had been planned, so far as following a rule of convenience can be called planning, as a hollow month. The question of which day between δεκάτη ὑστέρα and ἕνη καὶ νέα was normally omitted in a hollow month is the subject of this article. It is also a subject on which W. K. Pritchett and I disagree. Relying on a scholion of Proklos Pritchett omits δευτέρα μετ' εἰκάδας (or δευτέρα φθίνοντος) from the backward count in the last decade.² I, relying on the inscriptions, on the *scholia vetera* to the *Clouds* of Aristophanes, and on certain literary testimony, notably Pollux (of whom more later), omit ἑνάτη μετ' εἰκάδας (or ἑνάτη φθίνοντος) or whatever the day with which the backward count began.³ The Aristophanic scholia must refer to a time earlier than 407/6, before which (it is not yet clear by how much) δεκάτη φθίνοντος and not ἑνάτη φθίνοντος or ἑνάτη μετ' εἰκάδας began the backward count.⁴

To keep the issue sharply defined, I take up first the equations to which Pritchett objects in 271/0, then the equations of 407/6, and finally the equations of 333/2. I conclude with Proklos, and a word about Pollux, and one or two other epigraphical and non-epigraphical observations.

I

The equations of 271/0 do not stand alone. The same calendar combinations occur in 303/2, again an intercalary year, in which there is additional evidence for the final day. The equations are:

I.G., II², 493, 494

Prytany XII 23 = Skirophorion 21 (δεκάτη ὑστέρα)

I.G., II², 495, 496, 497

Prytany XII 31 = Skirophorion 29 (ἕνη καὶ νέα προτέρα)

Hesperia, XXI, 1952, pp. 367-368

Prytany XII 32 = Skirophorion 30 (ἕνη καὶ νέα)

¹ See *T.A.P.A.*, XCV, 1964, p. 241.

² Pritchett and Neugebauer, *Calendars of Athens*, 1947, p. 25. Proklos's scholion on Hesiod's *Works and Days*, lines 765-768, reads as follows: ἄρχεται οὖν ὁ Ἡσίοδος ἐκ τῆς τριακάδος, καθ' ἣν ἡ ἀληθὴς ἐστὶ σύνοδος, ὅτε μὲν οὖσαν τριακάδα ἄνευ ἐξαιρέσεως, ὅτε δὲ εἰκοστὴν ἑνάτην ὅτε καὶ ὑπεξαίρεται ἢ πρὸ αὐτῆς ὑπὸ Ἀθηναίων. This is Pertusi's text (*Scholia Vetera in Hesiodi Opera et Dies*, Milan, 1955) except that I change the last ὅτε to ὄτε. Pertusi has approved the

change; cf. *Hesperia*, XXXIII, 1964, p. 2 note 6.

³ *Hesperia*, XXXIII, 1964, pp. 4, 15.

⁴ Pritchett's attempt to throw out the Aristophanic scholia altogether because there was, as he claims, no δεκάτη φθίνοντος is valid only if he can prove that there was in fact no day so called. It will take a lot of proving; Proklos says it existed at Athens (scholion on Hesiod's *Works and Days*, lines 817-818). See also my note in *T.A.P.A.*, XCV, 1964, pp. 208-209 note 27.

No ingenuity on the part of an unbeliever can manipulate these dates by the substitution of alternative texts. The first two are preserved in their entirety on the stone; the third is sure. The best comment on the calendar is to repeat what I wrote in 1964.¹

« Skirophorion must have been planned as a hollow month (29 days), for the *ἔνη καὶ νέα* had to be repeated to bring its total up to 30 days and allow the festival and the conciliar years to end together in the summer of 302. This is additional proof that in the hollow month the omitted day was not *δευτέρα φθίνοντος* (or here *δευτέρα μετ' εικάδας*), for if the count had come down through the twenties just as in a full month, which is what Pritchett and Neugebauer claim for every hollow month until they reach *δευτέρα φθίνοντος*, there would have been no need for an intercalated *ἔνη καὶ νέα* to round out the thirty days; the count could simply have let *δευτέρα φθίνοντος* stand as the 29th and *ἔνη καὶ νέα* could have been in quite normal order the 30th. But the Aristophanic scholia show that the omitted day in a hollow month came where the backward count began. When *δεκάτη φθίνοντος* was the 21st day in a full month, this day was omitted in a hollow month and the backward count began with *ἐνάτη φθίνοντος* as the 21st. When *δεκάτη ὑστέρα* meant the 21st, the backward count began with *ἐνάτη μετ' εικάδας* and this day was therefore omitted in a hollow month. In the closing days of Skirophorion in 302 the naming was as follows:

- Skirophorion 21 = *δεκάτη ὑστέρα*
- Skirophorion 22 = *ὀγδόη μετ' εικάδας*
(*ἐνάτη μετ' εικάδας* omitted in this hollow month)
- Skirophorion 23 = *ἑβδόμη μετ' εικάδας*
- Skirophorion 24 = *ἕκτη μετ' εικάδας*
- Skirophorion 25 = *πέμπτη μετ' εικάδας*
- Skirophorion 26 = *τετράς μετ' εικάδας*
- Skirophorion 27 = *τρίτη μετ' εικάδας*
- Skirophorion 28 = *δευτέρα μετ' εικάδας*
- Skirophorion 29 = *ἔνη καὶ νέα προτέρα*
- Skirophorion 30 = *ἔνη καὶ νέα (ἐμβόλιμος)*

There was no help for it, as the month drew to a close, but to have an intercalated day to round out the thirty and allow the festival year and the conciliar year to end together. If we believe that the omitted day in a hollow month was *δευτέρα μετ' εικάδας*, we are faced with the curious dilemma that the Athenians must have omitted this day *even as they knew* that an extra intercalation would have to be made to take the place of it. They might have passed over the 21st as a routine matter of alternating full and hollow months, but the problem on the 29th was immediate. Their only need was to bring the month out even with the last prytany which had the normal number of days (32) for an intercalary year. They could do this simply by letting

¹ *Hesperia* XXXIII, 1964, pp. 6-7. See also comment by Paul Clement in *A.J.A.*, LXIX, 1965, pp. 192-193.

δευτέρα μετ' εικάδας stand (according to Pritchett's counting), but the intercalation on which they had to rely shows that δευτέρα μετ' εικάδας was not available to them for the 29th. It had, in fact, already been used for the 28th, for backward count, in a hollow month, omitted the first day (ἐνάτη μετ' εικάδας) with which the backward count began.»

Pritchett holds that one cannot be sure of the regular succession of dates in comparing the festival calendar with the prytany calendar, because of the possibility of «tampering» in the festival calendar. «One cannot posit from the left side of the equation,» Pritchett writes of 271/0, «that the days on the right side, those for the festival calendar, progressed in regular sequence, without additions or subtractions.»¹ It is of no moment whether they did or not, so long as we learn from the very terminology of the preserved texts that δευτέρα μετ' εικάδας was not available for the 29th day. Had it not already been used for the 28th it would have been a normal 29th. Before the 28th we can follow Pritchett as far as we like in assuming confusion. But this does not save his scheme for the omitted day. He must arrive at the next to last day, omit it (whatever its name) because he has a hollow month, cancel the omission because he needs a full month, and reinstate the same day with a different name. By what must seem an odd coincidence he finds the same (or similar) hypothetical confusion both in 303/2 and in 271/0. He has frequently solved his problems by assuming confusion, though that is of no help here. The temptation, I think, should be resisted to «see an Indian behind every tree.»

II

Pritchett goes on to say that the error of assuming a regular progression of days in the last decade of the month is proved by his study of the calendar of 408/7 B.C.² This study of his is taken up almost immediately under the caption «Calendar of the Year 407/6 B.C.» I have already written a criticism of this study,³ and thought it hardly necessary to discuss the «alternative» scheme proposed by him,⁴ whereby he omits a day (irregularly) between Metageitnion δεκάτη ὑστέρᾳ and ἕκτη φθίνοντος and then lets the month run smoothly and regularly to its end, a total of 29 days. He admits that «a day was positively omitted from the festival calendar between the 20th and the 24th.» He says that the suppressed day in Metageitnion «would presumably be in compensation for a day intercalated earlier in the year,» and then erroneously interprets the equation

$$\text{Prytany II } 1 = \text{Metageitnion } 8$$

as belonging to 407/6. There is no excuse for this; the equation is the first sure equa-

¹ *B.C.H.*, LXXXVIII, 1964, p. 465.

² *B.C.H.*, LXXXVIII, 1964, p. 465. He must mean the calendar of 407/6.

³ *T.A.P.A.*, XCV, 1964, pp. 204-212.

⁴ I see now that I must make my objections more readily intelligible to those who have worked only superficially with the calendar. In reviews

of Pritchett's *Ancient Athenian Calendars on Stone* by Alan Samuel in *Gnomon*, XXXVIII, 1966, pp. 475-480, and by G. Huxley in *A.J.P.*, LXXXVI, 1965, pp. 301-306, Pritchett's conclusions are accepted. A more discriminating study of the evidence (divorced from a good deal of P.'s polemic) ought to yield a different result.

tion we have for 406/5. I hope that Pritchett's optimism is justified about eventually being able to read the equations in lines 89-93, but they will belong to 406 and not to 407.

It is hard to follow some of Pritchett's argument because he gives no schematic diagram of what his equations imply.¹ An examination of what he has written shows that his arithmetic is two days in error. If one recedes to the beginning of the year from the equation

$$\text{Prytany II } 13 = \text{Metageitnion } 20$$

with prytanies I and II of 36 days each one finds that Hekatombaion will have had 29 days (30-1, not 30+1). Pritchett has a quotation from his own work in 1963 which gives the beginning, according to him, of the year 407/6:²

Prytany I 36 days Hekatombaion 30+1 (embolimos day)

Prytany II 36 days Metageitnion 30 days

He continues: «Returning to the data on p. 39,³ we may make the following table for the fourth and fifth equations:

Prytany II 13	Metageitnion 20	([δεκάτ]ει π[ρο]τέραι)
↑	↑	
Elapsed days = 3	Elapsed days = 4	
↓	↓	
Prytany II 17	Metageitnion 25	(ἕκτει φθίνοντος)

The suppressed day in Metageitnion would presumably be in compensation for a day intercalated earlier in the year. The intercalation must have taken place before the date of the third equation. Our 1963 interpretation, then, would seem to be correct with Hekatombaion having 31 days, and Hekatombaion and Metageitnion both being full months.»

My quotation from Pritchett's analysis ends here. A simple arithmetical error invalidates his argument.⁴ Hekatombaion may indeed have been full, but this means that Prytany I had 37 days and was, in all probability, the last prytany in the old fifth-century scheme of the prytany-year.⁵ But Hekatombaion had no extra day, and there was nothing to compensate by a later omission in Metageitnion. The day omitted in Metageitnion, epigraphically attested between δεκάτη προτέρα and ἕκτει φθίνοντος, was a normal routine omission to make Metageitnion a hollow month. It was the same omission that was made in Skirophorion of 303/2 and in Skirophorion of 271/0, and, as we must also record, in Metageitnion of 333/2.

¹ The discussion is in *B.C.H.*, LXXXVIII, 1964, pp. 472-473. Pritchett quotes at length my own schematic diagram, which we both now know to be incorrect. I hold no brief for it and have now replaced it with correct diagrams in *T.A.P.A.*, XCV, 1964, pp. 206-209. Pritchett has frequently accused me of changing my mind; I do so whenever the evidence requires it. So far as I can observe, Pritchett has not allowed the new evidence to

make any change in his position.

² *B.C.H.*, LXXXVIII, 1964, p. 472, quoting «Ancient Athenian Calendars on Stone», *Univ. of California Publications in Classical Archaeology*, IV, 4, 1963, p. 287.

³ The correct reference is to p. 471.

⁴ The error was noticed by Malcolm F. McGregor and reported in *Phoenix*, XX, 1966, p. 218.

⁵ See *T.A.P.A.*, XCV, 1964, p. 208.

III

There are two calendar equations at the beginning of the year 333/2.

Prytany I 39 = Metageitnion 9¹ = 39th day

Prytany II 15 = Metageitnion 24² = 54th day

I have written at length about these texts, and published a photograph of *I.G.*, II², 339.³ There is the possibility of restoring the date by prytany as [ἐβδόμηι καὶ δεκάτη]. But if the 15th is correct it means that the month Metageitnion was hollow and that the δευτέρα φθίνοντος was not omitted on the count back from ἔνη καὶ νέα at the end of the month. The day omitted, making the month hollow, must have been before ἕκτη φθίνοντος. We have, in fact, exactly the same circumstances that obtained in 407/6: same full Hekatombaion, same hollow Metageitnion, same day (presumably) omitted.

If one wishes it otherwise, one might restore the prytany date as 17th, and let the date in Metageitnion actually be the 26th, though called ἕκτη φθίνοντος. This could be done by assuming the intercalation of an extra day in the festival calendar, but there was no preceding irregularity to correct, nor is there any observable irregularity in the calendar three months later in the fourth prytany,⁴ nor for that matter eight months later in Elaphebolion, where the last day of the month was the 26th day of the eighth prytany.⁵ The calendar is quite regular with the omitted day in the hollow month that day with which the count backward began. As in 407/6, 303/2, and 271/0, where the 21st day was δεκάτη ὑστέρα, the omitted day may be taken with confidence as ἐνάτη φθίνοντος or ἐνάτη μετ' εἰκάδας. Wherever the epigraphical test can be applied one has to assume tampering with the festival calendar if the omitted day in Athens is to be made the day before the last in a hollow month. Pritchett may continue to disagree with my interpretation, but if so he operates under rules of his own choosing, the main criterion, apparently, a saving article of faith: «Heads I win; tails you lose.»

What then of Proklos? He was a learned man and may well have known a great deal about the classical calendar of Athens. It is a nice question of methodology, even so, whether one should use an excerpt from the fifth century after Christ to prove something about the fifth century before Christ. Plutarch reported that in the month of Boedromion at Athens the second day was always suppressed.⁶ There was,

1 *I.G.*, II², 338. The upper part of this inscription is preserved intact.

2 *I.G.*, II², 339. The writing is stoichedon, but the date has to be restored: [πέμπτηι καὶ δεκάτηι] in the prytany equals ἕκτηι φθίνοντος in the month.

3 *The Athenian Year*, pp. 48-51 with Fig. 1.

4 *The Athenian Year*, p. 84. The text of *I.G.*, II², 358 belongs to 307/6 (cf. *Hesperia*, XXXIII, 1964,

pp. 13-14). This attribution was correctly made by S. Dow, *Harv. Stud. Clas. Phil.*, LXVII, 1963, pp. 56-60.

5 The evidence is in *I.G.*, II², 336b, lines 5-7. See *Hesperia*, XXXII, 1963, pp. 434-435, for the regularity of the calendar with alternating full and hollow months. See pp. 77-78, above.

6 *On Brotherly Love*, 18 (Loeb Classical Library),

then, no Boedromion 2. Plutarch even wrote an essay on the reasons for the omission.¹ Yet on the Choiseul Marble the date Boedromion 2 is given for a payment of money to the hellenotamiai of 407/6, showing that Plutarch's evidence is not valid for the fifth century B.C.² This epigraphical evidence of classical date is immeasurably superior to the later literary tradition. It is, in fact, incontrovertible. The epigraphical evidence of this same inscription of 407/6 is likewise immeasurably superior to any contrary literary tradition from the fifth century after Christ, almost a thousand years later. Yet Pritchett's case for the omission of the next to last day in a hollow Athenian month rests on the transmitted text of Proklos, and on this alone.³ Ironically, it has been Pritchett's own new readings of *I.G.*, I², 340B, that have made the case against the accepted text of Proklos conclusive.

I have elsewhere urged the emendation of Proklos's text by deleting the words ὑπὸ Ἀθηναίων at the end.⁴ In a grammatical and logical *non-sequitur* they make him seem to say something that could not be true in classical Athens. Pritchett writes that I mistranslate Proklos (I confess that I condensed my translation) and do not understand the Greek.⁵ So I emphasize again my main objections to the text, primarily as a matter of intelligible or unintelligible Greek, not as part of a calendar problem.

Pritchett himself gives no translation of Proklos's scholion. It is clear how he interprets (or misinterprets) it, but how he translates the Greek is another matter. I give my own translation again, not abbreviating it in any way: «Hesiod begins from the 30th, on which (day) is the true conjunction, sometimes (this day, that is) being the 30th without subtraction, sometimes the 29th, when in fact the day before it is subtracted by the Athenians.» The καί in the temporal clause is an important word. It combines with ὅτε to limit the time and define it more closely. I commented on this in 1964.⁶ But Pritchett now refers for its usage to Herbert W. Smyth's *Greek Grammar* (1501a). This has no bearing on the problem, and to show how inapposite it is I quote Smyth in full:

«After adjectives and adverbs of likeness we also find καί, ὅσπερ (ὡσπερ). Thus, παθεῖν ταῦτὸν ὅπερ πολλάκις πρότερον πεπόνθατε *to suffer the same as you have often*

Moralia, 489B: Ἀθηναῖοι δὲ τὸν περὶ τῆς ἔριδος τῶν θεῶν μῦθον ἀτόπως πλάσαντες ἐπανόρθωμα τῆς ἀτοπίας οὐ φαῦλον ἐνέμιξαν αὐτῶ· τὴν γὰρ δευτέραν ἐξαιροῦσιν αἰετὸν τοῦ Βοηδρομιῶνος, ὡς ἐν ἐκείνῃ τῷ Ποσειδῶνι πρὸς Ἀθηναίων γενομένης τῆς διαφορᾶς.

1 *Table-Talk*, IX, Question 6 (Loeb Classical Library), *Moralia*, 740F-741B: τί αἰνίττεται ὁ περὶ τῆς ἔριδος τοῦ Ποσειδῶνος μῦθος; ἐν ᾧ καὶ διὰ τί τὴν δευτέραν Ἀθηναῖοι τοῦ Βοηδρομιῶνος ἐξαιροῦσιν; Hylas, one of the participants in the symposium, asks of his interlocutor Menepheylus: «ἐξεῖνο δέ σ',» εἶπεν, «ὦ Μενέφυλε, λέληθεν, ὅτι καὶ τὴν δευτέραν τοῦ Βοηδρομιῶνος ἡμέραν ἐξαιροῦμεν οὐ πρὸς τὴν σελήνην, ἀλλ' ὅτι ταύτη δοκοῦσιν ἐρίσαι περὶ τῆς χώρας οἱ θεοί;»

2 *I.G.*, I², 304B, lines 54-56: ἔλλενοταμίαις καὶ πα-

ρέδροις Λυσιθέοι Θυ[μαι]τάδει καὶ συνάρχουσι τετάρτει καὶ εἰκοστῇ τῆς πρυτανείας δευτέραι Βοηδρομιῶνος ἐς [τὴν] διοβελίαν ΡΗΙΙΙC. The text is from Meritt, *Athenian Financial Documents*, pp. 119-120.

3 The calendar of Rhodes (*I.G.*, XII, 1, 4) is of Roman date, late and not applicable to Athens. There is no need to recite the long history of this problem. The epigraphical evidence from Athens is now far more abundant than it was even a decade ago.

4 *Hesperia*, XXXIII, 1964, pp. 1-4.

5 *B.C.H.*, LXXXVIII, 1964, p. 466 note 2.

6 *Hesperia*, XXXIII, 1964, p. 2 note 7. For the scholion see p. 78 note 2, above.

suffered before D. 1. 8, οὐχ ὁμοίως πεποιήκασι καὶ Ὅμηρος *they have not composed their poetry as Homer did* P. Ion 531d.»

This has no connection with or applicability to the Proklos text. Pritchett must himself have misunderstood the Greek. A better reference would be to Denniston's book on the Greek particles, where he discusses at length the various usages of καί. Particularly appropriate to the present text is his comment on its transition in meaning from «also» or «even» to «actually»:¹

«In the idioms which I have considered above καί everywhere denotes the connexion between two ideas, either expressed, or fairly clearly implied (the line between expression and implication cannot be sharply drawn), and bears the sense 'also' (addition) or 'even' (climax). Hence, by an easy transition, the sense of addition sometimes recedes into the background, while the sense of climax predominates, a ladder of which only the top rung is clearly seen. 'Even' then passes into 'actually,' and καί is little more than a particle of emphasis, like δὴ. As such, it precedes, and emphasizes, various parts of speech (a convenient classification, which must not, however, be taken too seriously, since the words which follow the particle often coalesce into a single entity).»

Its similarity in force to δὴ is illustrated by two passages in Thucydides, which are compared by Classen: I, 8, 2, οἱ γὰρ ἐκ τῶν νήσων κακοῦργοι ἀνέστησαν ὑπ' αὐτοῦ, ὅτεπερ καὶ τὰς πολλὰς αὐτῶν κατόκιζε, and III, 54, 5, καὶ ὑμῖν, ὃ Λακεδαιμόνιοι, ἰδίᾳ, ὅτεπερ δὴ μέγιστος φόβος περιέστη τὴν Σπάρτην. Among translators whom I have consulted, neither Arnold, nor Crawley, nor Smith, nor de Romilly translates καὶ as «also.» The consensus agrees with Classen that the particle is intensive; de Romilly renders «au moment que.»

The part of speech which follows καί in the Proklos text is the verb ὑπεξαίρεται, and the proper translation of καί is «actually» or «in fact». If one carries the text further so that the words which follow the particle may in this instance, as Denniston says sometimes happens, coalesce into a single entity, the translation becomes (1) «when in fact the day before it is subtracted,» or (2) «when in fact the day before it is subtracted by the Athenians.» The first version makes sense, and is intelligible; the second version is nonsense and is not intelligible. Hesiod's calendar with its forward count of days in the last decade omitted the next-to-last day in a hollow month. Hence either the 30th or the 29th might be called τριακάς. Even the terminology is non-Attic. As I wrote in 1964 the omission of Hesiod's 29th day was not brought about by anything done in Athens, and the absurdity of saying so condemns the tag ὑπὸ Ἀθηναίων.²

Pritchett defends the text as it stands as characteristic of Proklos's style, especially with reference to his digressions on Athenian practice. But the two digressions which he cites (pp. 236, 10; 247, 7: Pertusi)³ are not comparable to the present text. Both

¹ J. D. Denniston, *The Greek Particles*,² Oxford, 1954, pp. 316-317.

² *Hesperia* XXXIII, 1964, p. 2.

³ 247, 7 is a wrong reference for 244, 7.

begin with an introductory διὸ καὶ Ἀθηναῖοι. If Proklos, in his note on the omitted day, wished to make any reference to Athens we have every right to expect at least ὡσπερ καὶ ὑπὸ Ἀθηναίων. I have suggested this as a possible textual emendation, but it has no virtue if in fact it is not what the Athenians did. It is not legitimate to take the καὶ before ὑπεξαίρεται and construe it with ὑπὸ Ἀθηναίων as «also.» This is what Manuel Moschopoulos (ca. 1300) did when he paraphrased the present text with an interpretation equally erroneous with that of Pritchett.¹ Denniston has a valuable comment on the position of καὶ when it is used adverbially:² «it normally comes next before the emphatic word, except where that word is preceded by article or preposition.» If Proklos meant to say that the next-to-last day was also omitted by the Athenians he had the option of writing καὶ ὑπὸ Ἀθηναίων, which he did not do.

As it stands, the text is corrupt. It is ambiguous. It seems to make Proklos affirm something (not in his usual style) about Athenian practice which we now know to be untrue. It cannot carry the meaning as Greek which Pritchett puts upon it. The words ὑπὸ Ἀθηναίων must be deleted, and the scholion, presumably as Proklos wrote it, reads as follows:

ἄρχεται οὖν ὁ Ἡσίοδος ἐκ τῆς τριακάδος, καθ' ἣν ἡ ἀληθὴς ἐστὶ σύνοδος, ὅτε μὲν οὖσαν τριακάδα ἀνευ ἐξαιρέσεως, ὅτε δὲ εἰκοστὴν ἐνάτην ὅτε καὶ ὑπεξαίρεται ἢ πρὸ αὐτῆς.

Ludwig Ideler, in his study of the calendar, urging that the Athenians did not omit the day before the last in a hollow month, quotes this scholion from Proklos and omits mention of the Athenians.³ His translation of the final temporal clause, with which I concur, is «wenn der Tag vor dem dreissigsten weggelassen wird.» Pertusi, in writing to me about the ambiguity of the text and the fact that the phrase ὑπὸ Ἀθηναίων is omitted in two manuscripts (Z and B), says «La soppressione però può essere stata determinata proprio dal contenuto del testo - - -.» I suggested this in my discussion of the scholion in 1964; if true, it was a correction long overdue. But I also called attention then, as I do again now, to the warning of Hermann Schultz, on whose work in part Pertusi's study has been based, that «für die Proklos-Scholien zu den Erga lernen wir, dass wir überall mit Auslassungen und Interpolationen zu rechnen haben.»⁴ The phrase ὑπὸ Ἀθηναίων is one of the interpolations.

But there is more to be said about the scholia and Pritchett's interpretation of them. In a comment on Hesiod's *Works and Days* (lines 817-818) Proklos defined the use of backward count in the last decade of a month in Athens:⁵ τοῦτ' ἐναργῆς ἐποίησεν, ὅτι τρίτην εἰνάδα κέκληκεν οὐ κατὰ Ἀθηναίους τὴν δευτέραν εἰκοστὴν ἀνάπαλιν ἀριθμοῦντας τὰς φθινούσας — δεκάτην, ἐνάτην, ὀγδόην καὶ ἑξῆς — , ἀλλὰ τὴν

1 See *Hesperia*, XXXIII, 1964, p. 3.

2 J. D. Denniston, *op. cit.*, pp. 325-326.

3 *Handbuch der mathematischen und technischen Chronologie*, I², 1883, p. 284.

4 Hermann Schultz, *Abhandlungen der königl. Gesell-*

schaft der Wissenschaften zu Göttingen, phil.-hist. Klasse, NF XII, 4, 1910, p. 64.

5 *Scholia Vetera in Hesiodi Opera et Dies* (ed. Pertusi, Milan, 1955), pp. 254-255.

πρὸ τριακάδος. Proklos knew that the Athenians counted the last decade of the month backward and that δεκάτη φθίνοντος was used for the 21st day. Pritchett now denies that any day at Athens was called δεκάτη φθίνοντος.¹ Since I have used the *scholia vetera* of the Ravennas and Venetus manuscripts of Aristophanes to show that δεκάτη φθίνοντος was the omitted day in a hollow month,² Pritchett continues his attack upon them by saying «one fact which is demonstrated anew is the worthlessness of Meritt's scholium, as I, following Starkie and many students of the calendar and the scholia, have urged through several publications.»³

This leads to a dilemma, for if Pritchett's argument is accepted then Proklos too, by the same token, must be declared «worthless» in describing the count of days in the last decade of a month at Athens. Both scholia must be interpreted in the light of all the facts as we now know them. Neither is «worthless.» Proklos gives the count for a full month, the as yet unknown source of the Aristophanic scholion gives the count for a hollow month. We now see that they are descriptive of the calendar earlier, probably, than 407/6, and it is both natural and economical to refer them to the count of days as introduced by Solon early in the sixth century.⁴

The *scholia vetera*, whether on Hesiod or on Aristophanes, the testimony of Plutarch, and the evidence of the inscriptions, are all in agreement that the backward count depended on the count back from the last day of the month. The count of days in the fifth century toward the end of a prytany is comparable. For example, the statement in *I.G.*, I², 296, line 32, that eight days were left when a payment was made to the generals ((ἐ)μέραι λοιποὶ ἔσαν ὀκτ[ό]) shows that the prytany still had eight days to run. In the nomenclature of a month the phrase would have been ὀγδοεὶ φθίνοντος. Pritchett makes a telling point that the use of the numeral in backward count «is positive evidence for predetermined lengths of prytanies.»⁵ The same can in justice be said of the count in the last decade of the month.⁶ I see no need to belabor the point, though perhaps there is need after all, since Pritchett's hypotheses have found favor in reviews like those of Samuel and Huxley.⁷

1 *B.C.H.*, LXXXVIII, 1964, p. 464. Having objected to εἰκοστή as «legal terminology» for the 20th day, though it appears on the stone in 407/6 B.C., he adds that «more importantly, we must also now remove δεκάτη φθίνοντος.»

2 Meritt, *The Athenian Year*, 1961, pp. 43-44.

3 *B.C.H.*, LXXXVIII, 1964, p. 464. This depends on his new readings in *I.G.*, I², 304B. I add, parenthetically, that I believe his readings to be correct, though his conclusions are wrong.

4 Plutarch, *Solon* (Loeb Classical Library), XXV, 3: After the twentieth he did not count the days by adding them to twenty, but by subtracting them from thirty, on a descending scale, like the waning of the moon (Perrin's translation). The Greek reads: τὰς δ' ἀπ' εἰκάδος οὐ προστιθείς, ἀλλ' ἀφαιρῶν καὶ ἀναλύων, ὥσπερ τὰ φῶτα τῆς σελήνης ἑώρα, μέχρι τριακάδος ἡρίθμησεν.

5 «Ancient Athenian Calendars on Stone», *Univ. of California Studies in Classical Archaeology*, IV, 4, 1963, pp. 312, 357. See my criticism in *T.A.P.A.*, XCV, 1964, p. 229. What I did not discover in 1964 is that Pritchett gives a wrong reference and confuses two references. The text he quotes on p. 357 is *I.G.*, I², 296 of the year 432/1 B.C. and not *I.G.*, I², 324. The prytany is the ninth and according to his own showing should have had 36 days, not 37. The eighth day from the end is therefore not the 31st but the 29th. He quotes *I.G.*, I², 324 on p. 312. This is typical of his careless writing and casts doubt on the lucidity of his thinking (as Huxley describes it). See also McGregor's criticism in *Phoenix*, XX, 1966, p. 226 note 47.

6 See *T.A.P.A.*, XCV, 1964, pp. 229-230.

7 See p. 80 note 4, above.

It is indeed perverse to maintain that the backward count was false in every hollow month, as Pritchett's insistence on the omission of δευτέρα φθίνοντος implies. He is, of course, committed to another fundamental error, namely, that the Athenians did not know when the last day of the month would come until they determined it by observation. In prehistoric times every lunar calendar was undoubtedly an observational calendar, but in classical times, when the Athenians, and the Romans, began to count the last days of the month backward, they had to know when the last day of the month was planned to come *regardless of observation*,¹ else there was no base from which to measure the backward count. Neither the Athenians nor the Romans omitted the next-to-last day. The theory that the Athenians did so omit it in hollow months is the sad legacy of Pritchett's interpretation of a corrupt and, as it stands, unintelligible scholion of Proklos. His necessary collateral hypothesis that the Athenians had an observational calendar for the festival year is without any basis whatsoever. *Es svebt völlig in der Luft*. I emphasized this damaging fact in 1961, stating that in Athens with all her literature, and with all the epigraphical and archaeological evidence now available, it is astonishing (were observation the rule) that nothing is said about observing the lunar crescent to fix the ending or the beginning of a month.² My reference was to the civil calendar, the now so-called festival calendar, of Athens. Pritchett has dubbed my claim «slightly ridiculous,»³ but so far as I can discover he has not a single item of evidence to disprove it, and though he writes copiously he has yet to demonstrate that anywhere in his festival calendar, tampered or otherwise, any new moon date or any ἔνη καὶ νέα was determined by observation. This is Pritchett's own private calendar, divorced from all ancient evidence and refuted by literary and epigraphical testimony alike. It is one of the three major errors that blemish and invalidate much of his calendar study.⁴ The backward count can have come into use only

1 See Agnes K. Michels, *The Calendar of the Roman Republic* (Princeton, 1967), pp. 139-140. Had Mrs. Michels kept δευτέρα φθίνοντος in her Athenian calendar there would have been no need for the first part of her note 48 on p. 140. The Athenians always knew the planned length of the month.

2 *The Athenian Year*, p. 17. See now *T.A.P.A.*, XCV, 1964, p. 230.

3 *University of California Publications in Classical Archaeology*, IV, 4, 1963, p. 328.

4 The third error is his unbending interpretation of Aristotle's statement (Ἄθ. Πολ., 43, 2) about the lengths of prytanies. This *dictum* of Aristotle that the first four prytanies were of 36 days and the last six of 35 days states a general rule, and its interpretation must be read in the light of all the evidence. What G. Huxley says in *A.J.P.*, LXXXVI, 1965, p. 304, about my treatment of Aristotle is a gross distortion and simply not true. McGregor rightly warned (*Phoenix*, XX, 1966, p. 213) that Pritchett's *Ancient Athenian Calendars on Stone*, which Huxley professed to review, «will delight the sa-

distic, convince the gullible, and deceive the innocent.» Study of the epigraphical texts shows that most of the time, where the rule is applicable, four prytanies of 36 days were followed by six prytanies of 35 days. But this sequence was not inviolable, and the rule cannot be taken *au pied de la lettre*. We know of differences in the sequence, but we know of no prytanies between 407/6 and the date of Aristotle's death which break these limits, either up or down, in an ordinary year. Pritchett's new discoveries in *I.G.*, I², 304B, added to the already extant epigraphical evidence, show that it is not always true that the 36-day prytanies all come at the beginning of the year. Frequently they did, six times, to be exact, out of ten in the years from 337/6 down to 323/2 (not counting intercalary years) in Aristotle's lifetime. Two 36 day prytanies came at the end of 407/6. There is, then, still this variable in the definition of the prytanies, a variable which is evident also when there were twelve instead of ten prytanies after 307/6. See *T.A.P.A.*, XCV, 1964, pp. 201-212, for a full discussion.

when observation of the new moon had given way to the convenience of alternating full and hollow months. The test for new moon day by observation, therefore, had been abandoned before Solon.¹ The planned length of the month from then on had to be known, whether 30 or 29 days.² For one reason or another the month might not always be carried through as planned, but the plan, and belief in the plan, had to be in mind before that day of the month with which the backward count began.

Other evidence now falls into place. It is no longer necessary to discount the plain statement of Pollux that *every* month had a δευτέρα φθίνοντος. Writing of the Court of the Areopagus at Athens he says (VIII, 117; ed. Bethe, Leipzig, 1931): καθ' ἕκαστον δὲ μῆνα τριῶν ἡμερῶν ἑδέκαζον ἔφεξις, τετάρτη φθίνοντος, τρίτη, δευτέρα. This was duly emphasized by Ludwig Ideler,³ who also compared the known count of the Roman calendar, backward in the latter part of the month before the Kalends, which he attributes to the reforms of the Decemviri in the fifth century B.C., saying that they (the Romans) «offenbar das attische berücksichtigt haben — Sie zählten die Tage der letzten Abteilung ihrer Monate in rückgängiger Ordnung bekanntlich allemahl so, wie es die jedesmalige Länge derselben mit sich brachte.» They began this count after the Ides, omitting any necessary day or days at the beginning of the backward count, like the Athenians, and not omitting the day before the Kalends. Pridie Kalendas, like δευτέρα φθίνοντος, was always present.⁴

Pollux, in his *Onomasticon*, has a double tradition about the count of days at the end of an Athenian month. Some manuscripts give the count for a full month, beginning with δεκάτη φθίνοντος for the 21st day, and some manuscripts give the count for a hollow month, beginning with ἐνάτη φθίνοντος for the 21st day. The tradition has been obscured over the years as editors have attempted reconciliation to achieve uniformity, with a liberal assumption of error and textual confusion. This is unnecessary and in method of textual criticism here unsound.

It will be useful to recall, briefly, some of the editions. I have not seen the *editio princeps* (Aldus, 1502), but the same text was printed in Florence in 1520 by Bernard

1 Agnes K. Michels, *The Calendar of the Roman Republic*, pp. 139-140 with note 48, dates the backward count «either when or after they (the Romans) adopted the pre-Julian calendar,» at least as early as the fifth century B.C. and after the observational lunar calendar had been abandoned.

2 Pritchett's «regulatory» calendar, according to him, had new moon dates determined by observation and was always «untampered.» The alleged evidence is set forth in *B.C.H.*, LXXXV, 1961, pp. 26-28, under eight rubrics, of which only the first, referring to the early period (i.e., prehistoric times), concerns an observational determination for the beginning of the month. As for the rest, of course the Athenians used a lunar calendar, but to rule

the month «according to the moon» demands only a conventional rule of convenience, and the statement (*h*) that in Geminus «there is no reference, explicit or implicit, to the Athenian lunar calendar, or, indeed, to Athens at all» is not true. *The Athenian Year*, pp. 33-37, carries a statement which I have no wish or reason to alter. See Paul Clement's note in *A.J.A.*, LXIX, 1965, p. 192, and my summary in *T.A.P.A.*, XCV, 1964, p. 241. See also p. 78, above.

3 *Handbuch*, I², pp. 284-285.

4 The ancient testimony is in Macrobius, *Saturnalia*, I, 16: Latii veteres incolae morem Graeciae in numerandis mensium diebus secuti, sunt ut retroversum cedente numero ab augmento in diminutionem computatio resoluta desineret.

Junta and in Basel in 1536 by Simon Grynaeus.¹ The reading of I, 63, which deals with the days of the month, runs as follows in the Basel edition: *καὶ ἡ μὲν πρώτη ἡμέρα, νουμηνία. ἀπὸ δὲ τῆς β' ἄχρι τῆς α' δεκάδος, τὸ ἰσταμένου προσθετέον. μετὰ δὲ τὴν ι', Ἡσίοδος μὲν, ε. τὴν μέσην φησί, τὴν ε, τε καὶ ι' λέγων. ἡμῖν δὲ ῥητέον α' ἐπὶ ι' καὶ β' ἐπὶ ι' καὶ μέχρι τῆς εικοσάδος. τὸ δὲ ἀπὸ τούτου α'. ἐπὶ εἰκάδι· ἢ δ' αὐτὴ, καὶ θ'. φθίνοντος· θ' γὰρ λοιπὰ, ἀπὸ τῆς κα. Καὶ ὁμοίως ἄχρι τῆς τριακάδος ἦν οἱ Ἀττικοὶ καλοῦσιν ἔνην καὶ νέαν.*

It is obvious that from the 21st to the last day of the month (*ἔνη καὶ νέα*) the Athenians counted the days in a hollow month (29 days) omitting *δεκάτη φθίνοντος* and beginning the backward count with *ἐνάτη φθίνοντος* as the 21st day. Henry Dodwell, in 1701², noted the equation *ἐνάτη φθίνοντος = εἰκὰς πρώτη* but considered the passage corrupt, as known from the hitherto available manuscripts (in *Codicibus hodiernis*), because he preferred a reading that was reported to him from a codex belonging to Isaac Voss «in quo ita concipitur: τὸ δὲ ἀπὸ τούτου ἂ ἐπὶ εἰκάδι [ἢ δὲ αὐτὴ καὶ δεκάτη φθίνοντος, καὶ δευτέρα ἐπὶ εἰκάδι] ἢ δὲ αὐτὴ καὶ ἐνάτη φθίνοντος. Verba uncis inclusa docent non *Pollucis*, sed *Librariis* *Pollucis* verba mutilantibus, sententiam illam esse tribuendam quae ἐνάτη φθίνοντος cum πρώτη ἐπὶ εἰκάδι conjunxerit.»

Dodwell's text was taken over completely, with no *apparatus criticus* to show its omissions and additions, by Immanuel Bekker in his edition of 1846 in Berlin: τὸ δὲ ἀπὸ τούτου πρώτη ἐπὶ εἰκάδι (ἢ δ' αὐτὴ καὶ δεκάτη φθίνοντος) καὶ δευτέρα ἐπὶ εἰκάδι (ἢ δ' αὐτὴ καὶ ἐνάτη φθίνοντος), καὶ ὁμοίως ἄχρι τῆς τριακάδος. The backward count for a hollow month was thus forgotten and the text became evidence for the count of days in a full month where the backward count began with *δεκάτη φθίνοντος*. This was Bethe's text of 1900, though Bethe gave an *apparatus criticus* which enabled one to follow the transition from its description of a hollow month to its description of a full month. He also discussed the manuscripts and commented on earlier editions, of which the so-called Amsterdam recension is most important for the history of the text. He gave a stemma of the extant manuscripts and showed them all to be derived in four main categories from an archetype in the possession of Archbishop Arethas of Caesarea in Cappadokia about the beginning of the tenth century.

Manuscripts M A and V omit *καὶ δευτέρα ἐπὶ εἰκάδι* (ἢ δ' αὐτὴ καὶ ἐνάτη φθίνοντος). The codices in the tradition of B had provided the Aldine text, as printed above. To judge from his *apparatus criticus* Bethe's text as printed agrees with S and F, though these two manuscripts omit the word *καί* before *ὁμοίως*, and though it suffers confusion (as will appear below) in reporting the 16th day from Hesiod's *Works*

¹ See Erich Bethe, *Pollucis Onomasticon*, Leipzig, 1900, p. XVI. A photostatic copy of the pertinent passage in the exemplar of the Basel edition now preserved in Leiden has been kindly supplied to me through the courtesy of Willem den Boer. The

Florentine edition omits *ε*, in the phrase *τὴν ε, τε καὶ ι' λέγων*.

² *De veteribus Graecorum Romanorumque Cyclis* (Oxford, 1701), Dissertatio I, Section XXXVIII.

and Days. But the Amsterdam edition, prepared by Heinrich Lederlin and Tiberius Hemsterhuis, gives the old Aldine text with the variant readings introduced in the notes. To be sure, they claim that the equation of the 21st day with ἐνάτη φθίνοντος is a corruption, confirmed in part by the reading of S from which, out of notes of Andreas Schott, Gottfried Jungermann records the following: ἡ δ' αὐτὴ καὶ δεκάτη φθίνοντος καὶ δευτέρα ἐπ' εἰκάδι· ἡ δ' αὐτὴ *mox vacat* θ' γὰρ λοιπὰ ἀπὸ τῆς κα'.¹

Through the kindness of Martín Ruipérez of the University of Salamanca I have obtained a xerox copy of the relevant passage in S. Schott's excerpt, as reported by Jungermann, is in error, for the manuscript clearly reads πρώτη ἐπ' εἰκάδι· ἡ δ' αὐτὴ καὶ δεκάτη φθίνοντος· καὶ δευτέρα ἐπ' εἰκάδι· ἡ δ' αὐτὴ καὶ ἐνάτη φθίνοντος· ὁμοίως ἄχρι τῆς τριακάδος. I have so far not found whence Schott derived his version. There is no reference to it in Bethe's apparatus. The words θ' γὰρ λοιπὰ ἀπὸ τῆς κα' belong to the B tradition. It may be that they are a gloss, as was suggested by Hemsterhuis in the Amsterdam commentary.² But they can only be a gloss on ἡ δ' αὐτὴ καὶ ἐνάτη φθίνοντος, with a month of 29 days, and they show that this was the reading on which the gloss (if it is a gloss) was made. The double tradition must have existed in the epitome possessed by Arethas from which all our manuscripts descend.

Where the *editio princeps* as copied in the Basel text reads μετὰ δὲ τὴν ι, Ἡσίοδος μὲν, ε. τὴν μέσην φησί, τὴν ε, τε καὶ ι· λέγων the Salamanca manuscript reads μετὰ δὲ τὴν δεκάτην, Ἡσίοδος μὲν, πέμπτη δ' ἡ μέσση φησὶν τὴν πέμπτην τε καὶ δεκάτην λέγων. There is misunderstanding here and incorrect expansion, which have crept into the now accepted texts, as in Bethe, who reads πεντεκαίδεκατην λέγων, with a note in the *apparatus criticus* that manuscripts S and F (that is, Π) and B read πέμπτην καὶ δεκάτην and that B adds τε after πέμπτην. In fact, S also has τε after πέμπτην and B has simply ε, τε καὶ ι· λέγων. In his apparatus Bethe also attributes to B the reading Ἡσίοδος μὲν πέμπτην τὴν μέσην φησί, whereas the texts dependent on B have only Ἡσίοδος μὲν ε, τὴν μέσην φησί. To agree with what Hesiod actually wrote it was long ago proposed that this be interpreted and written Ἡσίοδος μὲν ἕκτην μέσην φησί, for Hesiod's text reads (*Works and Days*, line 782) ἕκτη δ' ἡ μέσση Hesiod was not writing of the 15th day at all, but of the 16th, and the text of Pollux in both cases where the 15th has been assumed must be read as 16th. This is written into the margin of the Basel codex now in Leiden in the hand (*teste* Willem den Boer) of Lodewyk Kaspar Valckenaer (1715-1785) who succeeded Hemsterhuis as professor of Greek at Leiden and who doubtless knew and approved the emendation in the notes of Hemsterhuis' edition of 1706: Ἡσίοδος μὲν ἕκτην μέσην φησί, τὴν τε ἕκτην καὶ ι· λέγων. This was the suggestion of Leopard; Willem Canter of Utrecht (1542-1575) suggested as a correct text Ἡσίοδος μὲν ἕκτην τὴν μέσην φησί, τὴν τε ἕκτην καὶ ι· λέγων, a version also reported in Hemsterhuis' notes. It is important to observe

¹ *Julii Pollucis Onomasticon*, edd. Joh. Henricus Lederlinus et Tiberius Hemsterhuis (Amsterdam, 1706), note 16 *ad loc.*
² Preface, p. 38, *ad loc.*

that the textual tradition of B, which also gives the 21st day as ἐνάτη φθίνοντος, is equal to, or superior to, that of the other families of manuscripts which frequently misinterpret or expand incorrectly the double tradition of the original archetype.

There is nothing strange about this double tradition. Bethe himself comments on it and gives proofs of it in this very epitome of Pollux now under discussion.¹ It is clear from the examples preserved that the manuscripts are not in error, only that they carry now the description of backward count in a hollow month (B) and now the description of backward count in a full month (e.g. F, C).

When Pollux wrote the *Onomasticon* and dedicated it to Commodus Caesar (not yet Emperor) ca. 166-176 A.D. he described the Athenian month both full and hollow. He, at least, was not selective, and wanted to give the young prince a full and comprehensive account. In the epitome, which was made well before the ninth century (Bethe), the major work — as Bethe says, maius quam quod posteriorum usui aptum videretur, commodius tamen quam quo oratores scriptores egere vellent — was much condensed and the scribes who wrote the later manuscripts continued the process of condensation by copying now the one type of month, now the other. But there is here no misreading of θ' for ι' from the original, and no misunderstanding of the calendar. Moreover, we are dealing not with scholia on an ancient author (unless θ' γὰρ λοιπὰ ἀπὸ τῆς κα' be such) but with the text itself of the ancient author, datable precisely to the third quarter of the second century after Christ. Pollux knew that there were two ways of counting the days in the last decade of an Athenian month: from the 21st to the 30th in a full month (from δεκάτη φθίνοντος to ἔνη καὶ νέα), and from the 21st to the 29th in a hollow month (from ἐνάτη φθίνοντος to ἔνη καὶ νέα).² Like Proklos almost three centuries later he was describing the calendar of Solon, before the new names for the 20th and 21st days had come into use toward the end of the fifth century. And the omitted day in the hollow month was that with which the backward count began, not δευτέρα φθίνοντος. He knew, of course, as we learn elsewhere from the *Onomasticon* (VIII, 117), that δευτέρα φθίνοντος occurred in every month, whether full or hollow.³ This is also the unanimous testimony of the inscriptions, evidence from which is much more abundant today than it was before the excavations of the Athenian Agora were begun in May of 1931.

¹ Bethe, *op. cit.*, p. VI: apparet archetypum --- utramque lectionem exhibuisse alteram superscriptam, et aliis scribis hanc, illam aliis placuisse, alios diligenter descripsisse utramque.

² The text of Pollux is confirmation of the reliability of the *scholia vetera* on the *Clouds* of Aristophanes,

which also carry the tradition of the count for a hollow month. Cf. Meritt, *The Athenian Year* (1961), pp. 43-44.

³ See above, p. 88. Cf. also Meritt, *op. cit.*, p. 44, note 7.

THE METONIC CYCLE AT ATHENS

It is common knowledge that the year of the archon and the year of the Council in Athens were coterminous in the fourth century and later. Since 1928 it has been known that the year of the Council in the fifth century differed from the year of the archon, being approximately a solar year, whereas the year of the archon was a lunar year of either 354 (355) or 384 days depending on the absence or inclusion of an inevitable intercalary month.¹ As our understanding has increased, it has become necessary to revise the first tables of correspondences between these two different calendars and their relationships to our Julian reckoning of time. Even within the last few years improvements have been made, and it has been possible to fix definitely upon the year 407/6 as the time when the old fifth-century scheme gave way to the new coincidence which was to be maintained throughout the rest of classical antiquity.²

There were, however, exceptions, which are of interest in themselves and which throw much light on some of the most difficult problems of the calendar.

The first anomaly of this nature that can be demonstrated comes in 221/0 where the year of the archonship of Thrasyphon begins with a disparity of one month between a normal date by month and a normal date by prytany. The month Maimakterion, fifth in the festival calendar, was the same as the sixth prytany in the year of the Council.³ Counting a one-to-one correspondence between months and prytanies, it appears that the year of the Council in Thrasyphon's year had already begun with the last month Skirophorion in the year of his predecessor Archelaos of 222/1.⁴

The reason for the overlapping of one month from 222/1 into the year of the Council of 221/0 is found in the anomaly of 222/1 itself, which began as an ordinary year of twelve months (to which the prytanies were duly scaled) and then was turned into an intercalary year of thirteen months by the irregular addition of a second Anthesterion.⁵

¹ B. D. Meritt, *The Athenian Calendar in the Fifth Century* (Cambridge, Mass., 1928).

² For the progressive development of these tables of correspondence, see Meritt, *op. cit.*, pp 115, 118-120; *idem*, *Athenian Financial Documents of the Fifth Century* (Ann Arbor, Michigan, 1932), pp 104, 176-179; *idem*, *The Athenian Year* (Berkeley and Los Angeles, 1961), p. 218. The correspondences from 426/5 to 420/19 must now be read in *Phoenix*, XXI, 1967, p. 88, and those from 411/0 to 404/3 as in *Transactions of the American Philological Association*, XCV, 1964, p. 210. In this latter article (pp 208-210) the beginning of the coincidence between the year of the archon and the year of the Council is demonstrated.

³ *I.G.*, II², 839, as restored in *Athenian Year*, p. 174,

reading [ἔκει ἐπὶ δέκα] for the date by month in line 9 to correspond to the date ἔκει καὶ δεκάτει for the date by prytany in line 10.

⁴ This is discussed more fully in *T.A.P.A.*, XCV, 1964, pp. 256-259, where some misconceptions are rectified.

⁵ For the second Anthesterion, see *I.G.*, II², 844, line 33: Ἀνθεστηριῶνος ἐμβολίμου. The normal intercalation, had the year been planned as intercalary from the beginning, would have been a second Posideon. The fact that the year began as an ordinary year is shown by the equation of Boedromion 24 with Prytany IV 3. See the text of *I.G.*, II², 848, as published in *The Athenian Year*, p. 173, and the comment on the calendar count in *T.A.P.A.*, XCV, p. 256, note 200.

We may suppose that the prytanies were kept impartially to the lengths already held as available for them and that the year of the Council ended with the last day of Thargelion.¹ This resulted, of necessity, in the running over of a superfluous month into the year of the Council of 221/0. The equation of *I.G.*, II², 839 (above p. 92 note 3) not only shows 221/0 to have been intercalary in the scaling of the prytanies, but it shows that the extra month preceded Maimakterion. It is a matter of economy to leave the year of the archon Thrasyphron with a normal complement of twelve months and to attribute his long prytany year to the maladjustment caused by the intrusion of Anthesterion under Archelaos. The year 222/1, therefore, was intercalary in the festival calendar and ordinary in the conciliar calendar,² and the year 221/0 was ordinary in the festival calendar and intercalary (if one may use this term) in the conciliar calendar.³

The same dislocation by a month occurred between 167/6 and 166/5. I studied this problem again several years ago,⁴ but came to an erroneous conclusion because I forgot that 167/6 had to be intercalary in the archon's year as shown by the numismatic evidence. The year of the archon Nikosthenes was I rather than 0,⁵ and though I allowed for a solution in which the year 167/6 might be intercalary⁶ this is not enough; on the basis of such evidence as we have the year 167/6 must be taken as surely intercalary.⁷ At least, it was a year with 13 months, for the month letter nu (13) appears on some of the silver tetradrachms.⁸ Yet its prytanies must have been scaled to a year of twelve months, for the conciliar year of Achaïos (166/5) began one month earlier than his festival year. The evidence of two inscriptions of this year (*I.G.*, II² 946, 947) shows that at least from Anthesterion, and thereafter, the prytany date was equated with a calendar in which the months were one month ahead of the calendar *κατ' ἄρχοντα*. This calendar to which the prytany dates were equated was the calendar *κατὰ θεόν* (so named in the inscriptions), and its beginning in the year of Achaïos was with Hekatombaion *κατὰ θεόν*, commencing a new Metonic cycle. This cycle was the 15th of the 19-year cycles in the lunar calendar which Meton inaugurated in 432/1 B.C. Wherever in the record of Athenian calendar dates a distinction is made between dates *κατ' ἄρχοντα* and dates *κατὰ θεόν*, the prytany dates correspond (without exception) to the dates *κατὰ θεόν*, and show that perfect regularity which was essen-

1 In 307/6 an irregular intercalation was absorbed by lengthening all remaining prytanies. When the month Gamelion was irregularly intercalated the last six prytanies, which should have been of 29 days, were each given an extra five days, making them have 34 days each. Cf. *The Athenian Year*, pp. 176-178, which is now to be revised as in *Hesperia*, XXXII, 1963, pp. 435-437, and in *Hesperia*, XXXIII, 1964, pp. 13-15, where a reason for the irregular intercalation is suggested.

2 The prytanies were scaled to a year of twelve months, possibly: 27, 27, 27, 27, 27, 27, 27, 27, 27, 28, 28, 28 (354 days in thirteen prytanies).

3 The prytanies marched *pari passu* with the months (Skirophorion of 222/1 and all twelve months of 221/0), a total of 384 days in all.

4 *T.A.P.A.*, XCV, 1964, pp. 242-247.

5 *Ibid.*, Table on p. 239. See now *Hesperia*, XXXVII, 1968, p. 236.

6 *Ibid.*, p. 243, note 145.

7 Cf. *The Athenian Year*, p. 181, and Table on p. 236.

8 Margaret Thompson, *The New Style Silver Coinage of Athens* (New York, 1961), pp. 140-141. The significance of this is the subject of a chapter in *The Athenian Year*, pp. 180-191.

tial to the astronomical validity of Meton's scheme. The fact that in 166/5 the new conciliar year began with a final month *κατ' ἄρχοντα* left over from 167/6, while the months *κατὰ θεόν* were in accord with Meton's scheme, explains not only the calendar anomalies of both years but is a confirmation of the identity of the calendar *κατὰ θεόν* with the Metonic cycle.¹

The consequences of these anomalies must be followed through in the restorations and interpretations of the texts of these two years. Although it has been shown that the one inscription of the archonship of Nikosthenes which contained a calendar equation can be restored either for an ordinary² or an intercalary³ year, the twelve prytanies came to an end at the end of the twelfth month, leaving Skirophorion *κατ' ἄρχοντα* to run with the first prytany of 166/5 and to be the equivalent of Hekatombaion in that year *κατὰ θεόν*.

There is nothing to show which month in 167/6 was irregularly intercalated but it did not disturb the succession of prytanies that had already been planned for, an ordinary year. Indeed, the year 167/6 *κατὰ θεόν* must have been ordinary (no matter what was done with the year *κατ' ἄρχοντα*) so that the 14th Metonic cycle (*κατὰ θεόν*) might come to its end correctly. A tentative restoration of Dow's text may be given as follows:⁴

Hesperia, Suppl. I (1937), p. 135, No. 72

a. 167/6 a.

NON - ΣΤΟΙΧ.

ἐπὶ Νικοσθένου ἄρχοντος ἐπὶ τῆς Οἰνείδος ἕκτης πρυτανεί

[ας ἦι - - - - -]^{ca. 23}ος ἐγραμμάτευεν· δήμου
[ψηφίσματα· Ποσιδεῶνος ἐνάτει μετ' εἰκάδας,] δευτέραι καὶ εἰ
[κοστεῖ τῆς πρυτανείας· ἐκκλησία ἐν τῷ θεάτρῳ] τῶν - - κτλ.

This brings us now to the first available text in 166/5, namely, *Hesperia*, Suppl. I (1937), pp. 135-136, No. 73.⁵ Here no date *κατὰ θεόν* was given. So we have assumed, as always when no date *κατὰ θεόν* was given, that the equation was between the date by prytany and the month date *κατ' ἄρχοντα*. The month was Maimakterion, and in normal circumstances one would restore the number of the prytany as fifth,⁶ especially since the date by month seems to agree closely with the date within the prytany.⁷ But the prytany calendar in this year ran *pari passu* with the calendar *κατὰ θεόν*, which began earlier by a month than the calendar *κατ' ἄρχοντα*: it included the

1 See my discussion in *T.A.P.A.*, XCV, 1964, pp. 235-238, 240, 246.

2 S. Dow, *Hesperia*, Suppl. I (1937), p. 135, No. 72; Pritchett and Neugebauer, *Calendars of Athens* (Cambridge, Massachusetts, 1947), p. 85; B. D. Meritt, *T.A.P.A.*, XCV, 1964, p. 243.

3 B. D. Meritt, *The Athenian Year* (Berkeley and Los Angeles, 1961), p. 183.

4 The date ἐνάτει μετ' εἰκάδας is the 22nd in a full month. The consensus now is against any assumption of forward count with μετ' εἰκάδας. Cf. *T.A.P.A.*,

XCV, 1964, p. 256, note 200.

5 Published first, with a photograph, in *Hesperia*, III, 1934, pp. 21-27, No. 19.

6 As has, in fact, been done by all students heretofore.

7 Meritt, *Hesperia*, III, 1934, p. 21, restored Μαιμακτηρ[ῶ]νος πέμπτη ἰστα[μένου ἕκτη] τῆς πρυτανείας. Pritchett and Neugebauer, *Calendars*, p. 85 note 24, altered this to Μαιμακτηρ[ῶ]νος πέμπτη ἰστα[μένου πέμπτη] τῆς πρυτανείας.

final month of the archonship of Nikosthenes. This relationship must be kept firmly fixed in mind. The month Maimakterion κατ' ἄρχοντα was therefore the equivalent of the sixth — not the fifth — prytany, and the first three lines of the text in question should be restored as follows:

Hesperia, III, 1934, p. 21, No. 19

a. 166/5 a.

ca. 10

NON - ΣΤΟΙΧ.

ἐπὶ Ἀχαιοῦ ἄρχοντος ἐπὶ τῆς - - - - - ἕκτης πρυτανείας ἦν Ἡρακλέων
Ναν(ν)άκου Εὐπυρίδης ἐγραμμάτευεν βουλῆς ψηφίσματα Μαιμακτηριῶ
νος πένπται ἰστα[μένου, πένπται τῆς πρυτανείας βουλή ἐν βουλευτηρίῳ]

The next inscription, though it depends largely on restoration, is similar, namely, *I.G.*, II², 948. The dates should read [- - - - ὠνος τρίται ἐπὶ] δέκα, τρίται καὶ [δεκάται τῆς πρυτανείας].¹ The name of the month and the name and number of the prytany are not known, but again the ordinal number of the prytany must be greater by one than the number of the month.

Only in Anthesterion (κατ' ἄρχοντα) and in Elaphebolion (κατ' ἄρχοντα) did the scribe think it desirable to indicate the true month dates (κατὰ θεόν) with which the prytany dates coincided.² Even here the addition of the date κατὰ θεόν in one of the texts was an afterthought and had to be accommodated in a long erasure.³ The dates by prytany were scaled to the months of the Metonic cycle, as they had been in fact in the two earlier texts though only the dates by month κατ' ἄρχοντα were there given.

To keep the evidence before us, it will be well to repeat here the preambles of these two later inscriptions with dates both κατ' ἄρχοντα and κατὰ θεόν.

I.G., II², 946⁴

a. 166/5 a.

NON - ΣΤΟΙΧ.

ἐπὶ Ἀχαιοῦ ἄρχοντος ἐπὶ τῆς - - - - - ἰδος ἐνάτης πρυ
τανείας ἦν Ἡρακλέων Νανγ[άκου Εὐπυρίδης ἐγραμμάτευ]
εν Ἀνθεστηριῶνος δευτέρα[ι μετ' εἰκάδας κατὰ θεόν δὲ Ἐλα]
φηβολιῶνος τετράδι μετ' εἰκάδα[ς ἐβδόμη καὶ εἰκοστή τῆς πρυτανεί]
5 ας ἐκκλησία ἐμ Πειραιεῖ τῶν προέδρων ἐπεψήφισεν - - - - -]
Πτελεάσιος καὶ συμπρόεδροι [ἔδοξεν τῇ βουλῇ καὶ τῷ δήμῳ]

I.G., II², 947⁵ (second part)

a. 166/5 a.

NON - ΣΤΟΙΧ.

[ἐπὶ Ἀχαιοῦ] ἄρχοντος ἐπὶ τῆς - - - - - ς ἐνδεκάτης πρυτ[α]ν[ε]ία[ς] ἦν [Ἡρα]

¹ Cf. *Hesperia*, III, 1934, p. 26. See also *Hesperia*, XXIII, 1954, p. 240, No. 10, for the close correspondence between month and prytany, though the date within the year is uncertain.

² *I.G.*, II², 946, 947.

³ *I.G.*, II², 946. See the photograph in *Hesperia*, III, 1934, p. 24, and the commentary in *T.A.P.A.*, XCV, 1964, p. 244.

⁴ The text is that of Pritchett and Neugebauer, *Calendars*, p. 85 with note 25. The photograph in *Hesperia*, III, 1934, p. 24, shows the erasure in lines 4-6 and the closer spacing required by the addition of the date κατὰ θεόν. For the original text before the erasure, see *T.A.P.A.*, XCV, 1964, p. 244.

⁵ The text is that of the *Corpus* except for the syllabic division at the end of line 9.

- 10 [κλέων Νανν]άκου Εὐπυρίδης ἐγρ[αμμάτε]υεν· Μουνιχιῶνος [δ]ωδ[εκα]τά[τη]ς
[κατὰ θεὸν δὲ] Θαρρηλιῶνος [δωδ]ε[κάτη] δωδεκάτη[ι τῆ]ς πρυ[τανείας]
[ἐκκλησία κ]υρία ἐν τῷ θεάτρῳ· [τῶ]ν π[ρο]οέδρων ἐπεψήφισεν Εὐρ[- - -]

As noted above (p. 94) it has been an assumption that the calendar dates in all Attic decrees, unless otherwise designated, are dates κατ' ἄρχοντα.¹ No doubt this is generally true, but the existence of one sure equation between a prytany date and a date by month κατὰ θεόν where no date κατ' ἄρχοντα appears raises the suspicion that the civil date could at times be simply the date κατὰ θεόν even if not so specified.² The text in question reads as follows:³

Hesperia, V, 1936, p. 428, No. 16

a. 191/0 a.

NON - ΣΤΟΙΧ.

[ἐπὶ - - - - - ^{ca. 10} ἄρχοντ]ος ἐπ[ι]

[τῆς - - - - - ^{ca. 10} ὀγδόης π]ρυτα

[νείας ἦι - - - - - ^{ca. 12}] Πρα[σ]ιεὺς

[ἐγγραμμάτε]υεν· Ἀνθεστ]ηριῶνος

5 [ἐνάτηι ἰσταμένου κατὰ θε]όν, ἐνά[τη]

[τῆς πρυτανείας· ἐκκλησ]ία κυ[ρία]

[τῶν προέδρων ἐπεψήφισ]εν Ε[- - -]

lacuna

Since the first publication of this text G. A. Stamires has restored two more inscriptions, both decrees of the same day in the archonship of Alexis (173/2), in which the equations are again in dates by prytany and month κατὰ θεόν where no date κατ' ἄρχοντα appears, as follows:⁴

Hesperia, XVI, 1947, p. 163, No. 61

a. 173/2 a.

NON - ΣΤΟΙΧ. ea 40 - 45

[ἐπὶ Ἀλέξιδος ἄρχοντος ἐπὶ τῆς Πτολεμαίδος δεκάτης]

[π]ρυ[τανείας] δήμου ψηφίσματα· Μουνιχιῶνος ἐνδε

κάτε[ι κατὰ θεόν, ὀγδοί και δεκάτει τῆς πρυτανείας· ἐκ]

κλησία κ[υρία] ἐν τῷ θεάτρῳ· τῶν προέδρων ἐπεψήφισεν Φ[ι]

5 λήσιος Διογ[υσο] - - - - - ^{ca. 10} και συμπρόεδροι· ἔδοξεν]⁵

1 Cf. Pritchett and Neugebauer, *Calendars*, p. 19.

2 See *Hesperia*, XXXIV, 1965, p. 89, where I promised to discuss later the implication of this κατὰ θεόν date. I now make good this promise.

3 For the date, see *T.A.P.A.*, XCV, 1964, pp. 239-240.

4 His restorations are in *Hesperia*, XXVI, 1957, p. 39.

5 The rest of the text, as known, is published in *Hesperia*, XVI, 1947, p. 163, No. 61, with corrections in *Hesperia*, XXIX, 1960, p. 417.

I.G., II², 996

a. 173/2 a.

NON - ΣΤΟΙΧ. ca. 51 - 54

[ἐπὶ Ἀλέξιδος ἄρχοντος ἐ]πὶ τῆς Πτολεμ[αίδος δεκάτης πρυτανείας]
 [δήμου ψηφίσματα Μουν]ιχιῶνος ἐνδε[κάτει κατὰ θεόν, ὀγδόει καὶ]
 [δεκάτει τῆς πρυτανείας]ς ἐκκλησία κυρ[ία ἐν τῷ θεάτρῳ τῶν προ]

[έδρων ἐπεψήφισεν Φιλ]ήσιος Διονυσο[- - - - - καὶ συμπρόεδροι]

[έδοξεν τῷ δήμῳ⁵]ς Νικηράτου Φλυε[ὺς εἶπεν^{ca. 12} - - - - -]¹

W. K. Pritchett argues against accepting these texts because «so little is preserved» and they «present such anomalies as to leave me in doubt about their validity.»² He has also described the restorations as «surely incorrect.»³ Much is, indeed, restored, but the two preambles complement each other, and the lengths of line are pretty accurately known. The restorations can by no means be called «surely incorrect,» and in view of the sample available from 191/0 it is questionable whether the restoration of the date can even be considered an anomaly, unless indeed all dates κατὰ θεόν are to be so regarded.⁴ The texts proposed by Stamires deserve serious consideration in any study of the κατὰ θεόν calendar.

We are now dealing with the κατὰ θεόν, or Metonic, calendar. The simplest and most readily understandable description of it, following Geminus, has been given by J. K. Fotheringham.⁵ He has drawn up a table showing the months of the first year of the cycle. Without giving Julian equivalents of new moon dates I here expand this table, in schematic form, to cover all 19 years of the cycle,⁶ showing in each month the day omitted according to plan. The intercalary years are also designated as by Fotheringham.⁷ The days omitted are successively each 64th, *seriatim*, from the beginning of the cycle, and their sequence defines the full and hollow months of the years.

In the thirteenth year (173/2) of the Metonic cycle the last three months should be of 30 29 30 days. Hence the equations given by Stamires are preferable, for Mounichion 11 κατὰ θεόν falls into this sequence with $19 + 29 + 30 = 78$ days remaining in the year, to be equated with $14 + 32 + 32 = 78$ days remaining in the prytanies, with the date by prytany restored as the 18th. The year of Alexis κατ' ἄρχοντα differed from the Metonic year κατὰ θεόν both at its beginning and at its

1 The rest of the text, as published in the *Corpus*, must be considerably modified because of the longer length of line as determined by Rolf Hubbe in a careful study of the stone in the Epigraphical Museum at Athens. Cf. *Hesperia*, XXVI, 1957, p. 39.

2 «Ancient Athenian Calendars on Stone,» *University of California Publications in Classical Archaeology*, IV, 4, p. 336 note 9.

3 *B.C.H.*, LXXXI, 1957, p. 279 note 5.

4 I have suggested alternative readings for the two equations given by Stamires (*The Athenian*

Year, p. 159), and shown the month Mounichion with an intercalated day which was then compensated after Mounichion 12 by an omission. But this assumption of irregular tampering was unwise, and if Pritchett should choose to call my suggestion «surely incorrect» I should now agree with him.

5 *Monthly Notices of the Royal Astronomical Society*, LXXXIV, 1924, p. 385.

6 See Table, p. 98.

7 *Op. cit.*, p. 387. See Meritt, *T.A.P.A.*, XCV, 1964, p. 236.

end, for Hekatombaion was full κατ' ἄρχοντα and must have been hollow, according to plan, κατὰ θεόν.¹

But year in and year out the festival calendar of the Athenians must have been much the same as the true astronomical calendar of Meton's cycle, showing at most only slight variations, if any. It would be perverse to believe that it was out of step with the phases of the moon, on which both calendars in their schematic form de-

Meton's Nineteen-Year Cycle

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	O	I	O	O	I	O	O	I	O	I	O	O	I	O	O	I	O	I	O
Hek.		6		24			2	26	20				22	16				18	12
Meta	16				18	12				14	8				10		28		
Boe.		10	4	28			6	30	24			2	26	20		4		22	16
Pyan.	20				22	16				18	12				14				
Maim.		14	8				10		28			6	30	24		8	2	26	20
Pos.	24			2	26	20		4		22	16				18				
Pos. II	18															12		30	
Gam.			12		30		14	8		26		10	4	28			6		24
Anth.	28	22		6		24			2		20				22	16			
Elaph.			16				18	12		30		14	8				10	4	28
Moun.		26		10	4	28			6		24			2	26	20			
Thar.	2		20				22	16				18	12				14	8	
Skir.		30		14	8				10	4	28			6	30	24			2
	355	383	355	354	384	355	354	384	354	384	354	355	384	354	354	384	355	384	354
	Total Days 6940																		

Fig. 1. The Cycle with every 64th day indicated for omission.

ended, all the time, or even, for that matter, most of the time. During the second century the Athenians thought it worth while at uncertain intervals to be specific about the true month date κατὰ θεόν on which the prytanies depended. It is only between 196/5 and 95/4 that the distinction is known to have been recorded. They were especially concerned, evidently, at the transition from the 14th to the 15th Metonic cycle (166 B.C.) where the festival calendar κατ' ἄρχοντα was irregularly retarded by one month.

Having found calendar equations between prytanies and months in 191/0 and

¹ See the two decrees of the archonship of Alexis in *Hesperia*, XXVI, 1957, pp. 33-35, No. 6, and the equations in *The Athenian Year*, p. 159. The year of Alexis, with a new decree, is discussed further below.

possibly also in 173/2 where the month date is *κατὰ θεόν* and where no date *κατ' ἄρχοντα* is mentioned, one is entitled to ask whether in 166/5, at the beginning of the year in which Athenian concern for exactitude was most evident, the dates of *I.G.*, II², 948, and of *Hesperia*, III, 1934, p. 21, No. 19, are not *κατὰ θεόν* dates even though not so specified. It is a possibility to be borne in mind, and if true then the traditional restorations are correct as hitherto published. I have assumed that such an interpretation is as yet unjustified by available evidence, and have, therefore, suggested the restoration (above) of *κατ' ἄρχοντα* dates in both these early texts of the year.

What happened at the end of the year of Achaïos is again of interest. The equations of *I.G.*, II², 947, show that there were two and a half months *κατ' ἄρχοντα* still left with only one and a half prytanies in which to place them. A number of solutions can be rejected at once. It is almost inconceivable that the 11th and 12th prytanies were each given 45 days. Not only is this solution improbable in itself in view of the Athenian democratic feeling for equal opportunity among the phylai for holding office, but it would spoil completely the otherwise attested scaling of the prytanies to the months *κατὰ θεόν*. One suggestion has been that 30 days should be subtracted from the festival calendar (i.e. the calendar *κατ' ἄρχοντα*) somewhere during its last three months of Mounichion, Thargelion, and Skirophorion.¹ I believe it is better to let the *κατ' ἄρχοντα* months progress normally and to begin the archonship of Pelops (165/4) on Skirophorion 1 of 165 B.C. This is the same anomaly that occurred in 221 B.C.,² in connection with which it should be noted by those who feel that dislocations of a month are flagrant irregularities that they are much less disturbing in a lunar calendar than omissions or additions of days within a month, such as are known to have occurred at intervals throughout antiquity.³

We summarize our observations thus far in a series of conclusions:

- (1) The dates *κατὰ θεόν* in 166/5 are Metonic dates.
- (2) The conciliar year of the twelve prytanies was scaled to the Metonic year.
- (3) The last month of the archonship of Nikosthenes (*κατ' ἄρχοντα*) was the equivalent of the first month (*κατὰ θεόν*) of the 15th Metonic cycle.
- (4) Throughout the year 166/5 the months *κατ' ἄρχοντα* were a month behind the months *κατὰ θεόν*.
- (5) Dates by month not defined as *κατὰ θεόν* were probably *κατ' ἄρχοντα*.
- (6) Dates not defined in either way were certainly *κατ' ἄρχοντα* if incompatible with a normal prytany calendar.
- (7) No month was omitted from either calendar in 167/6 or in 166/5.

¹ W. K. Pritchett, «Ancient Athenian Calendars on Stone», *University of California Publications in Classical Archaeology*, IV, 4, 1963, p. 338.

² See above, p. 92.

³ See Jean Pouilloux, *B.C.H.*, LXXIII, 1949, p. 497, and comment by Meritt on Pouilloux's very sensible observations in *T.A.P.A.*, XCV, 1964, pp. 249-250. I would now revise my statement (*loc. cit.*,

p. 250, lines 6-7) only to the extent of substituting for «the particular circumstances of an irregularly intercalated month earlier in the year» a new wording: «the particular circumstance of having to begin the naming of the months *κατ' ἄρχοντα* ἐπὶ Ἀγαμοῦ later by one month than the true *κατὰ θεόν* Metonic names for the beginning of the 15th Metonic cycle.»

The archonship of Pelops (165/4) therefore began, as did the archonship of Achaïos (166/5), one month after the beginning of the year of the Council. It will have had twelve months in its own right, and the year of the Council of 165/4 will have had thirteen months, making the final month Skirophorion approximately the equivalent of the twelfth prytany.¹ Hence the prytanies should have been regularly of 32 days each, as was normal for a year of 13 months in the period of the 12 phylai. This would have been the case with a normal year *κατὰ θεόν*, for 165/4 was the second year of the Metonic cycle and as such intercalary *κατὰ θεόν*. The fact that the archonship of Pelops had only twelve months atones for the extra intercalation in 167/6, now being rectified. That year was ordinary (12 months) *κατὰ θεόν* and intercalary *κατ' ἄρχοντα*; in 165/4 the year was ordinary *κατ' ἄρχοντα* and the prytanies spanned a total of 13 months. One expects the calendar equation of *I.G.*, II², 949, to read *Σκιροφοριῶνος ἔκτει ἐπὶ δέκα ὀγδόει καὶ δεκάτει τῆς πρυτανείας*, but the date on the stone is unmistakably *Σκιροφοριῶνος ἔκτει ἐπὶ δέκα ἔκτει καὶ δεκάτει τῆς πρυτανείας*. The year of Pelops, therefore, has been taken by all scholars as ordinary, as indeed the archon year itself undoubtedly was. But the year of the Council must have had 384 days (or 383), not 354 or 355. The problem is not how to eliminate a month from the end of the year of Achaïos, for this would still leave Pelops, then in his own right, with an intercalary year (and the calendar problem remains), but how to add 30 days to the prytany year 165/4. I suggested in 1964 that the date *ἔκτει ἐπὶ δέκα*, which was omitted in *I.G.*, II², 950, and which appears in *I.G.*, II², 949, appears there as a conflation from the date by prytany, and should have been omitted there too,² or, alternatively, that the extra 30 days were absorbed during the first six prytanies of the year.³ If we are unable to find a sure solution it is because we have today insufficient evidence or lack the wit to discover it. I have one further suggestion to make, which will not appeal to those purists in epigraphical method who dislike emendation, but which I think ought to be made because it has some support in an epigraphical parallel where a similar error, about two generations later, can be documented from the stone.

In *I.G.*, II², 1028, line 67, *ἔκτει* was written by error for *ἐνάτη*, which appears correctly in line 2. If the date by prytany in *I.G.*, II², 949, was really *ἐνάτει καὶ δεκάτει*, though written *ἔκτει καὶ δεκάτει* under the psychological pressure of the date by month, or for whatever reason, then the last prytany had 32 days and the last month 29 days. The calendar equation then becomes

$$\text{Prytany XII } 1\langle 9 \rangle = \text{Skirophorion } 16$$

Since the year of Pelops (165/4) was the second year of a Metonic cycle, the last month of the year ought, anyway, to have had 29 days.⁴ There is no assurance here that the month date was *κατὰ θεόν* (it is not so named) or that it was the same as the

¹ *I.G.*, II², 949.

² *T.A.P.A.*, XCV, 1964, p. 243.

³ *Ibid.*, where the parallel of what happened in

307/6 is cited, though not with approval.

⁴ See the table on p. 98.

κατὰ θεόν date, but it is possible thus to allow the prytanies of the year to have normal lengths of 32 days,¹ as was suitable for the span they had to cover of 13 months. We may be sure that the Athenians of 165/4 managed their calendar of this year so that this was true. We do not know how it was done, but we can suggest such possible solutions as occur to us, and I think it is our duty to do so.

In Meton's calendar every 64th day was suppressed. This is the evidence of Geminus, accepted by J. K. Fotheringham² and cited with approval by B.L. van der Waerden.³ There can be no doubt, I think, that this was his method used to determine the succession of full and hollow months. Since Meton was an Athenian, the months were named with Athenian names and the years were designated by Athenian archons.⁴

Geminus treats not only of the 64th day, but he speaks also of the alternating full and hollow months, allowing no variation from this alternation except to have occasionally two full months together. According to Geminus there could be, for example, no sequence of two hollow months. He even applies this rule of alternation to the civil calendar κατ' ἄρχοντα (VIII, 3-7) saying that in civic usage the length of a month was taken by and large to be $29\frac{1}{2}$ days, each two-month period amounting to 59 days, the months themselves being alternately full and hollow. All Greece, he says, used this conventionalized alternation.

Yet a crucial question remains, on which there is no evidence contrary to Geminus's explicit statement except what can be gleaned, possibly, from the inscriptions. Was the κατὰ θεόν calendar as applied in Athens one that omitted every 64th day, no matter where it fell within the month, or was the κατὰ θεόν calendar modified sufficiently to accord with the Athenian practice of allowing each hollow month to omit that day with which backward count in the last decade of the month began?⁵ Such as it is, the evidence of the inscriptions must be studied.

In publishing a new text of the ephebic decrees of 127/6⁶ I found the calendar equation in the third prytany of the intercalary year to be

$$\text{Prytany III } 5 = \text{Boedromion } [10].$$

Another equation later in the same prytany was decipherable:

$$\text{Prytany III } 24 = \text{Boedromion } 29 \text{ ([ἐν]η καὶ νέ]α [κατὰ] θεόν)}$$

In commenting on this text as evidence for the Metonic year I noted that the date Boedromion 10 was an omitted day in the Metonic cycle and hence could not be taken here as a Metonic date.⁷ The month was hollow in any event, for only 19

¹ Since the whole year had only 383 days (the only intercalary year in the Metonic cycle with this number) one of the prytanies, chosen perhaps by lot, had 31 days. If the reconstruction here suggested is correct, the short prytany was not the last.

² *Monthly Notices of the Royal Astronomical Society*, LXXXIV, 1924, p. 387.

³ *J.H.S.*, LXXX, 1960, p. 171; cf. also p. 177.

⁴ Three dates in Ptolemy's *Almagest* are given in terms of Meton's calendar; in 383/2, in 383/2 again,

and in 382/1. See Meritt, *The Athenian Year*, 1961, pp. 23-25.

⁵ I have written above on 'The Omitted Day.' See pp. 77-91.

⁶ *Hesperia*, XXXIV, 1965, pp. 92-95. Cf. also *Hesperia*, XXXVI, 1967, p. 100 (*Corrigenda*) and *S.E.G.*, XXII, 108.

⁷ *T.A.P.A.*, XCV, 1964, pp. 240-241. For the omission, see also the table on p. 98, above. The year 127/6 was second in the cycle.

days elapsed from Boedromion 10 to Boedromion 29. But it was perhaps a hasty judgment to say that Boedromion 10 could not, after all, be a Metonic date. Astronomically, if the rule of Geminus is rigorously applied, it had to be dropped, making Boedromion a hollow month. But the month could have been made hollow by omitting, in normal Athenian practice, ἐνάτη μετ' εἰκάδας. A much simpler Metonic cycle would, indeed, result if all the hollow Metonic months, as shown in the table on p. 98, were made hollow in this way. The date Boedromion may well have been a date in the festival calendar, but a date which there was no reason to correct (for there was no irregularity), and a date also in the Metonic regulatory calendar, which there was no need to mention because there was nothing which needed regulation.

There are not many years where κατὰ θεόν dates are known that can throw light on the question here being raised.¹ In the year of Achaios (166/5) there may be doubt whether the dates in the early inscriptions of the year are κατ' ἄρχοντα or κατὰ θεόν though not so named,² but there is no evidence to bear upon the omitted day.

A new inscription from an intercalary year, now to be attributed to the archonship of Alexis (173/2), is instructive. I published this in 1964,³ uncertain whether the date should be 186/5 or 173/2, both known to be intercalary in the civil calendar at Athens.⁴ But we now know that the κατὰ θεόν calendar belongs to the Metonic cycle. Hence the new inscription cannot be assigned to 186/5, the last year of a cycle, for the last year was always ordinary κατὰ θεόν. The opening lines should read as follows:

[ἐπι Ἀλέξιδος ἄρχοντος ἐπὶ τῆς [Ἰ]ππο[θωντί]δος ἐν[δ]εκάτης πρυταν[ε]ί

[ας ἦι ^{ca. 19} ----- ε]ὺς ἐγ[ραμ]μάτευεν Ἐταρ[γ]ηλιῶνος ἐνδ[ε]
[κάτει κατ' ἄρχοντα, κατὰ θεόν] δὲ ὀγδόει ἐπὶ δέκα, τρίτει καὶ εἰκοστ[ε]ί
[τῆς πρυτανείας ἐκκλησία κυ]ρία ἐν τῶ[ι] θε[ά]τρῳ τῶν προ[ο]έδρω[ν] ἐ]

for the continuation, see *Hesperia*, loc. cit.

Since the 18th day of Thargelion was the same as the 23rd day of the eleventh prytany, it is clear that the year still had 41 days to run.⁵ If the day omitted from Thargelion, to make it a hollow month, was the 64th day in the succession of omitted days according to the rule of Geminus, it would have been Thargelion 12.⁶ This would then leave 42 days (12 + 30) still to run during the rest of Thargelion and all of Skirophorion, and would be incompatible with the count of days (41) in the prytanies. On the other hand, if the rule of Geminus simply describes the mechanical device

1 For the list see *T.A.P.A.*, XCV, 1964, p. 237, to which *Hesperia*, XXXIII, 1964, pp. 183-184, No. 34, must now be added. The inscription of 196/5 published as *Hesperia*, V, 1936, pp. 422-423, should be omitted. The year was intercalary in the festival calendar (cf. *I.G.*, II², 785) and could not have had a date κατὰ θεόν. The record on the stone does not provide one, except by restoration: see *Hesperia*, XXXVII, 1968, pp. 235-236.

2 *Hesperia*, III, 1934, p. 21, No. 19; *I.G.*, II², 948.

See above, p. 99.

3 *Hesperia*, XXXIII, 1964, pp. 183-184, No. 34. See p. 98 note 1, above.

4 *The Athenian Year*, p. 236.

5 With prytanies of 32 days each, as regularly in an intercalary year, there were 9 days left in Prytany XI and 32 days in Prytany XII.

6 See the table on p. 98, for the 13th year of the cycle.

used to determine which months were to be full and which hollow, the omitted day would be ἐνάτη μετ' εἰκάδας, and the count of days in months (11 + 30) and prytanies (9 + 32) would be in perfect accord.

Something more may perhaps be gleaned from a study of 122/1.¹ Here a date Boedromion 9 κατὰ θεόν was equated with an intercalated Boedromion 8 κατ' ἄρχοντα. This came about in the 7th year of the 17th Metonic cycle, in which, if the rule for omitting every 64th day was rigorously applied, Hekatombaion 2 and Boedromion 6 would have been omitted days.² Boedromion 9 κατὰ θεόν, therefore, would have been the 67th day of the year (29 + 30 + 8). At the same time, in the calendar κατ' ἄρχοντα the first two-month period of 59 days was followed by 8 days and one extra. To obtain the same total of 67 (58 + 8 + 1) days the first two-month period could have had only 58 days, and both Hekatombaion and Metageitnion must be taken as hollow months — 29 days each, or whatever other irregularity might have produced a total of 58 days. But no irregularity exists and there is no epigraphical problem if the 64th day omissions merely indicate that Hekatombaion and Boedromion are to be made hollow, presumably omitting in calendar count that day after the 21st which would have been called ἐνάτη μετ' εἰκάδας. The day Boedromion 9 κατὰ θεόν now becomes the 68th day of the year and the calendar κατ' ἄρχοντα is normal except for the extra 8th day of Boedromion, the very abnormality, in fact, which called for the correction made by mention of the κατὰ θεόν calendar.

There is also something to be said about the year of Euergetes (164/3). This was an ordinary year κατὰ θεόν, as was suitable for the third year of the 15th Metonic cycle. The following text gives one of its calendar equations:

Hesperia, XXVI, 1957, p. 73, No. 22

a. 164/3 a.

NON - ΣΤΟΙΧ.

ἐπὶ Εὐεργέτου ἄρχοντος ἐπὶ τῆς Ἰπποθωντίδος ἐνάτης πρυτ[α]
νείας ἤι Διονυσόδωρος Φιλίππου Κεφαλήθεν ἐγραμμάτευε[ν]
Ἐλαφηβολιῶνος ἐνάτει ἐπὶ δέκα, κατὰ θεὸν δὲ δεκάτει ὑστέ[ραι],
δευτέραι καὶ εἰκοστῆ τῆς πρυτανείας· ἐκκλησία ἐμ Πειρ[αιεῖ]³

The omitted days in this year of the Metonic cycle were Boedromion 4, Maimakterion 8, Gamelion 12, Elaphebolion 16, and Thargelion 20. There were left, after Elaphebolion 21, therefore, 9 + 30 + 29 + 30 = 98 days in the astronomical Metonic calendar of that year κατὰ θεόν. The last four prytanies, in this case, must each have had 30 days, yielding 98 days after Prytany IX 22.

So far, so good. But the two other equations of this year cannot be reconciled with these lengths of prytanies. They are as follows:⁴

¹ See *I.G.*, II², 1004, 1006A.

² See the table on p. 98.

³ The continuation of the text is to be found in *Hesperia*, *loc. cit.*

⁴ *Hesperia*, XXVI, 1957, pp. 75-77, a republication, with new fragments, of *Hesperia*, Suppl. I, 1937, pp. 142-146, No. 79.

Prytany [VII] 21 = [Gamelion] 21

Prytany [VIII] 4 = [Anthesterion] 4

If Elaphebolion 16 was in fact the omitted day in the *κατὰ θεόν* calendar, the span from Anthesterion 4 (if this was a true date) to Elaphebolion 21 was only 46 days. From Prytany VIII 4 to Prytany IX 22 can be as little as 46 days only if Prytany VIII had only 28 days. This would be an unheard-of irregularity in the prytany calendar of the period of the 12 phylai. In ordinary years the prytanies were of 29 or 30 days, never more, never less. So one would have to fall back here on the assumption that the date in Anthesterion was not a true date, but one which had been «tampered,» to use a phrase familiar from W. K. Pritchett's calendar studies. It would be like the date Elaphebolion 19 in the text as cited above, though no corrective was applied by reference to the *κατὰ θεόν* calendar.

But if, even in the count *κατὰ θεόν*, it is permissible to omit, not Elaphebolion 16, as the law of Geminus specifies, but Elaphebolion *ἐνάτη μετ' εἰκάδας*, as was normal Athenian practice in hollow months, then it becomes possible to incorporate into the calendar scheme of the year the dates from Gamelion and Anthesterion, as well as from Elaphebolion with no irregularity other than that specifically attested as different from *κατὰ θεόν* in Elaphebolion.

Prytany [VII] 21 = [Gamelion] 21

(30 or 29 days) (30 or 29 days)

Prytany [VIII] 4 = [Anthesterion] 4

(29 days) (30 days)

Prytany IX 22 = Elaphebolion 21

(30 days) (29 days)

[Prytany X 1] = [Mounichion 1]

(30 days) (30 days)

[Prytany XI 1] = [Thargelion 1]

(29 days) (29 days)

[Prytany XII 1] = [Skirophorion 1]

(30 days) (30 days)

In this reconstruction of the calendar of 164/3 months and prytanies were marching *pari passu*, according to the rule of Pollux (VIII, 115),¹ except for one interchange between the eighth and ninth prytanies. Meager though the evidence is, one must, I think, count it as possible either that the hypothetical omitted day was transmuted in the Metonic cycle itself or that the Athenians used the cycle in this way to «regulate» their festival calendar.

In 330 B.C. the Kallippic cycle was propounded as a refinement of the Metonic cycle. But there is no help to be gained from the four dates by Athenian month cited by Ptolemy from Timocharis of Alexandria in terms of the Kallippic cycle.² These

¹ See Meritt, *The Athenian Year*, pp. 135 ff.

² *Almagest*, VII (ed. Heiberg), pp. 25, 28, 29, 32.

have been discussed by Fotheringham,¹ who shows them all in agreement with the omission of every 64th day. He assumes, in default of other information, that Kallippos used the same plan as Meton for determining the full and hollow months. But the Kallippic dates are equally well satisfied if the hollow months had the normal Athenian omissions. More evidence is needed. The astronomers, no matter what cycle they used, must have had a flawless and invariable *κατὰ θεόν* calendar. Whether it was managed precisely as claimed by Geminus is the question latent in the epigraphical record from Athens.

The thesis here developed that the Metonic calendar was the same as the *κατὰ θεόν* calendar in Athens requires a new interpretation of the effect upon it of the omission of every 64th day. If this interpretation is not correct, then the *κατὰ θεόν* calendar in Athens was not the Metonic calendar. There is a strong case from the epigraphical record that it was. The fact that the intercalations in the Athenian calendar down through the fourth century and into the third followed the Metonic pattern is indicative of the dependence of this calendar, both *κατ' ἄρχοντα* and *κατὰ θεόν*, on Meton's cycle. When, in 166 B.C., the *κατ' ἄρχοντα* calendar and the *κατὰ θεόν* calendar parted company, the *κατὰ θεόν* calendar followed the Metonic cycle, and there is reason to believe that it was indeed at that time equated with the Metonic calendar. So far as there is clear evidence, the other years *κατὰ θεόν* in the Athenian calendar are the same in character as the Metonic years, and the prytany calendar of the Athenian Council was scaled to them. Only in 196/5 is there — so far as we now know — a discordant note. One text in that year starts to give a date *κατὰ θεόν* and then does not do so. If the date *κατὰ θεόν* existed, even in garbled form,² then it is not a Metonic date, and some other explanation for the date here *κατὰ θεόν* must be found. If divorced from the Metonic cycle it can only be counted as a normal date, without archon's tampering. The Athenians had to know, before the year began, whether to scale the prytanies to an ordinary or an intercalary year, and one may assume that in normal times the calendar character of each year was known in advance. So too the months, in their alternation — full and hollow — were doubtless known, and this foreordained sequence is the best explanation for *κατὰ θεόν* in case the thesis for the Metonic cycle should prove not to be acceptable. As I wrote in 1964,³ one important task in the study of the Athenian calendar is to search out and explain, if possible, the evidence of its connections with Meton's cycle. This present essay is an effort in that direction.

¹ *Monthly Notices of the Royal Astronomical Society*, LXXXIV, 1924, pp. 389-390.

² As restored in *Hesperia*, V, 1936, p. 422 (No. 15, lines 3-4): 'Ελαφηβολιώνος τρίτει ἐπὶ δέκα (κατ' ἄρ-

χοντα) κατὰ θεὸν δὲ ὀγδόει (ἐπὶ δέκα, ὀγδόει) καὶ εἰκοστῇ τῆς πρυτανείας.

³ *T.A.P.A.*, XCV, 1964, p. 260.

OF ATHENIAN DATES AND DAYS

The Athenians had several ways of naming the twentieth day of a month. In order of their appearance in the inscriptional record they are:

- (1) εικάς. *I.G.*, I², 4, lines 20-21 (*a.* 485/4 *a.*).
- (2) δεκάτη προτέρα. *I.G.*, I², 304B, line 42, as read by W. K. Pritchett in *B.C.H.*, LXXXVIII, 1964, p. 463 (Metageitnion of 407/6).
- (3) εικοστή. *I.G.*, I², 304B, line 91, as read by B.D. Meritt in *Athenian Financial Documents* (1932), p. 122 (Hekatombaion of 406/5).
- (4) δεκάτη προτεραία. *I.G.*, II², 1673, line 77 (*a.* 327/6 *a.*).

Of these δεκάτη προτεραία must be considered a variant on δεκάτη προτέρα. By the end of the fourth century the terminology had settled down to δεκάτη προτέρα, which carried with it the designation of the 21st day as δεκάτη ύστερα. This latter makes its first appearance shortly after the middle of the fourth century in the newly discovered sacrificial calendar from Erchia,¹ but may be presumed for the late fifth century from the appearance of δεκάτη προτέρα in 407/6. The literary record gives εικάδες from Aristophanes (*Clouds*, 17: ὄρων ἄγουσαν τὴν σελήνην εἰκάδας),² Euripides (Ion, 1076-7: λαμπάδα θεωρὸν εἰκάδων ὕπεται ἐννύχιος),³ Andokides (I, 121: ταῖς δ' εἰκάσι, μυστηρίοις τούτοις),⁴ the Testament of Epicurus (Diogenes Laertios, X, 18: ὥσπερ καὶ εἰς τὴν γινομένην σύνοδον ἐκάστου μηνὸς ταῖς εἰκάσι τῶν συνφιλοσοφούντων ἡμῶν),⁵ and Plutarch (*Camillus*, XIX, 3: ἐν δὲ Σαλαμῖνι περὶ τὰς εἰκάδας).⁶ Later writers used εικάς,⁷ as did also Demosthenes, though he called the 21st day ύστερα δεκάτη (XIX, 59-60, naming days in Skirophorion of 347/6). The use of εικάς lived on, even in the inscriptions, in private and semi-private documents.⁸ The earliest appearance so far in the epigraphical record of εικάδες, meaning 20th, is in the phrase μετ' εικάδας (= after the 20th) of *I.G.*, II², 335 of the year 334/3:⁹ ἔκτι μετ'

1 G. Daux, *B.C.H.*, LXXXVII, 1963, pp. 604-610, lines Γ 2-3, Δ 2-3, 41-43.

2 See *T.A.P.A.*, XCV, 1964, p. 209 note 27 for the meaning.

3 The reference is to the night of Boedromion 20. Cf. August Mommsen, *Chronologie* (Leipzig, 1883), p. 105.

4 Maidment's note in the Loeb Classical Library claiming εικάδες for the last ten days of the month cannot be right. There were no 'twenties' of the month in the Athenian calendar (see the reference cited in note 2). Andokides makes it clear that the illegal suppliant's bough was placed on the altar in the Eleusinion at the time of the Mysteries (I, 110). Kallias had bribed an informant on the twentieth, at the time of the Mysteries (I, 121) to indict Andokides. It is not correct to translate ταῖς εἰκάσι as 'soon after the twentieth.'

5 August Mommsen, *op. cit.*, p. 105, suggests that this is not a sure reference 'da der Plural auch mit Bezug auf die in ἐκάστου liegende Pluralität gesetzt sein könnte.' But this is a strained objection. The Greek refers to a day of meeting (αἱ εἰκάδες) in each month, not to a plurality of meetings on days each of which was known individually as ἡ εἰκάς in all months.

6 This is the date of the great naval victory of 480 B.C. Plutarch elsewhere also uses the singular.

7 E.g., Proklos, in his commentary on Hesiod, and Pollux, in the *Onomastikon*.

8 As in the decree of a religious organization (111/0) published in *Hesperia*, XXX, 1961, pp. 229-230, No. 29: [Σκιροφοριῶνος εἰκάδι. Cf. also No. 28: [Σκιροφοριῶνος εἰκάδι].

9 For the text see *Hesperia*, IX, 1940, p. 339.

[εικάδας]. This phrase soon replaced φθίνοντος in designating the waning days of the month and was used consistently in preambles of Athenian decrees from 317/6 on.¹ The last appearance of a date φθίνοντος, not in the preamble of a decree, is in *I.G.*, II², 1492, line 98, of 306/5.

It is an attractive hypothesis that the formal naming of the days as we know them from the inscriptions of the fourth century was propounded by Meton when he inaugurated his reform of the calendar in 432 B.C. His terminology, valid for the astronomers, was not adopted at once in political life any more than was his 19-year cycle. The Athenian calendar with its ordinary and intercalary years from 432/1 down to the end of the century is approximately known,² and it does not follow the pattern of Meton's cycle, as it did in the fourth century and later, for many years.³

The use of εικάς for the 20th day by Pollux, Proklos, and various scholiasts and lexicographers shows that they were following the tradition which goes back before Meton even though it was continued by Demosthenes and the unknown scribe of 111/0. The later writers make no mention of epigraphical usage, and show no knowledge of it. Their calendar, with εικάς for the 20th, had either δεκάτη φθίνοντος or ένατη φθίνοντος for the 21st, as indeed must have been true of Solon's calendar as well. Proklos gives the count from the 21st to the 30th in an Athenian full month as δεκάτη φθίνοντος, ένατη φθίνοντος κτλ.⁴

The continued use of δεκάτη φθίνοντος or δεκάτη μετ' εικάδας has an echo in Eretria, to which reference has been made by Georges Daux and which I have used to show that μετ' εικάδας means «after the 20th» and not «among the twenties.»⁵ The date is early third century, and the same inscription refers to the 20th day in the calendar of Chalkis as εικάς or as εικάδες.⁶ These dates are not Attic, but they are significant for the continuation of the old tradition in an epigraphical context. I have even thought, though at present I consider it unlikely, that δεκάτη μετ' εικάδας for the

1 A date φθίνοντος occurs in *I.G.*, II², 383b (a.320/19a), Pritchett and Neugebauer, *Calendars of Athens*, p. 62; Meritt, *The Athenian Year*, p. 113; *Hesperia*, XXXII, 1963, pp. 433-434.

2 See B. D. Meritt, «The Metonic Cycle at Athens,» above, p. 92, with the references cited in note 2.

3 Cf. *T.A.P.A.*, XCV, 1964, pp. 237-238. The seasonal year of Thucydides, his method of reckoning time by summers and winters in the fifth century, was in no way dictated by the astronomers. It is surprising how uncritically the theory, for which there is no evidence whatsoever, of Pritchett and Van der Waerden (*B.C.H.*, LXXXV, 1961, p. 29) that Thucydides counted the evening rising of Arcturus as the beginning of spring has been accepted by scholars like W. den Boer (*Mnemosyne*, XX, 1967, p. 46) and Édouard Delebecque (*Thucydide et Alcibiade* [1965], pp. 33-34). See B. D. Meritt, «A Persian Date in Thucydides,» *Cl. Phil.*, LXI, 1966, pp. 182-184. Such unfounded hypotheses,

once taken into secondary writings, are hard to eradicate.

4 He says of Hesiod's calendar ότι τρίτην εινάδα κέκληκεν οὐ κατὰ Ἀθηναίους τὴν δευτέραν εικοστήν ἀνάπαλιν ἀριθμοῦντας τὰς φθινούσας — δεκάτην, ένατην, ὀγδόην καὶ ἕξῃς. Cf. A. Pertusi, *Scholias Vetera in Hesiodi Opera et Dies* (Milan, 1955), pp. 254-255.

5 *T.A.P.A.*, XCV, 1964, p. 209, note 27. The reference to the Eretrian calendar is in *I.G.*, XII, 9, 207, line 39: ὡς Ἐρετριεῖς [ἀ]γούσιν ἀπ[ὸ] τῆς δεκάτης μετ' εικάδα. I give my own reading from the photograph published by Kourouniotis in *Αρχ. Ἐφ.*, 1911, Plate 1, which confirms his correct spelling of Ἐρετριεῖς.

6 *I.G.*, XII, 9, 207, line 58: [πέμψαι] εἰς Χαλκίδα πρὸ τῆς εικάδος τοῦ Ἀπατουριῶνος μηνὸς ὡς Χαλκιδεῖς ἄγουσιν; *ibid.*, lines 60-61: τοῦ [Ἀπατ]ουριῶνος μηνὸς ὡς Χαλκιδεῖς ἄγουσιν π[ρὸ] εικάδων τῶν κατὰ θεόν.

21st might occur at least once in Athens in a decree of the fourth century, in the text published in *Hesperia*, III, 1934, p. 3 No. 5, of the year 327/6 B.C.¹

In the first publication of this stone I read lines 3-4 in part as follows: Μουνιχιῶνος [ἐκκλησία ἐν τῷ θεάτρῳ] ἐνάτει μετ' εἰκά[δας]. After examining the squeeze at the Institute for Advanced Study W. K. Pritchett came to the conclusion that the letter before ἐνάτει was delta, and in 1947 he published a new version of the text:² Μουνιχιῶνος [δευτέρα, ἡμερολογδόν] δ' ἐνάτει μετ' εἰκά[δας]. This restoration is not acceptable, and has been severely criticized;³ one strong argument against it is the necessity for assuming forward count in the use of δευτέρα (with μετ' εἰκάδας understood). It is ironical that this assumption should have been made by Pritchett, who elsewhere argues that the count of days with μετ' εἰκάδας was never forward.⁴ In 1964 I wrote a long account of the readings from the stone, though without an attempt at restoration.⁵

Whether the letters on the stone, as now recoverable, give δ' ἐγάτει or δεκάτει remains a problem. Apparently either is epigraphically possible.⁶ The problem of restoration resolves itself into finding a suitable supplement for the 19 letter-spaces after Μουνιχιῶνος. Pritchett thought that ἡμερολογδόν, as part of the supplement, would be appropriate to the period when φθίνοντος was being replaced by μετ' εἰκάδας in the count of days in the last third of a month.⁷ The word occurs only once, so far as is known, in Athenian inscriptions, in the designation of a date in *I.G.*, II², 458:⁸ Γαμηλιῶνος δευ[έ]ραι ἐ[μ]βολίμῳ ὀγδόε[ι] μετ' εἰκάδας ἡμερολογδόν. Except that it means «as one counts days,» its exact calendrical significance has been doubtful. It must be deduced, if it can be learned at all, from the context of its one certain appearance.

Were it true that it was used with μετ' εἰκάδας because this phrase in naming the days of a month was relatively new, replacing φθίνοντος, then it is surprising that it occurs so rarely and so late (307/6). The phrase μετ' εἰκάδας appears first in 334/3, and there without benefit of the explanatory ἡμερολογδόν.⁹ It also occurs in 325/4,¹⁰

¹ *T.A.P.A.*, XCV, 1964, pp. 222-225.

² Pritchett and Neugebauer, *Calendars of Athens*, p. 53.

³ E.g., by Arnold Gomme, *Cl. Rev.*, LXIII, 1949, p. 122; by Paul Clement, *A.J.A.*, LXIX, 1965, p. 194; by Malcolm McGregor, *Phoenix*, XX, 1966, pp. 214-217; and by me, *The Athenian Year*, 1961, p. 101 with note 43, and *T.A.P.A.*, XCV, 1964, pp. 221-225.

⁴ *University of California Publications in Classical Archaeology*, IV, 4, 1963, pp. 349-354. This is now, I think, generally recognized. I have been one of the last to give up the idea of a possible forward count. See my recantation in *T.A.P.A.*, XCV, 1964, p. 256, note 200.

⁵ *T.A.P.A.*, XCV, 1964, pp. 221-225.

⁶ Pritchett publishes a photograph of a latex

squeeze in *University of California Publications in Classical Archaeology*, IV, 4, 1963, Plate 20, b, and says of it that «all traces of the nu of the word *enatei* have disappeared.» The left upright is now (1968) seen by Bradeen, Laing, and McGregor, who have recently examined the stone in Athens, as well as by me. See my comment on the condition and preservation of the stone in *T.A.P.A.*, XCV, 1964, p. 222. A photograph of the stone itself is published in *Hesperia*, III, 1934, p. 4.

⁷ Pritchett and Neugebauer, *Calendars of Athens*, pp. 33, 53.

⁸ It does not occur in *I.G.*, II², 459, though it should in fact be there restored.

⁹ *I.G.*, II², 335.

¹⁰ *I.G.*, II², 361.

in 324/3,¹ in 305/4,² in 304/3,³ in 302/1,⁴ and thereafter exclusively in preambles of decrees in place of φθίνοντος, always without ἡμερολογδόν except in the one instance of 307/6. It seems, therefore, that the mere dating of an inscription by a day μετ' εικάδας in the last decade of the month is not in itself enough to call for ἡμερολογδόν. This phrase was not brought into the calendrical lexicon merely by a change from φθίνοντος to μετ' εικάδας.

But there were two additional elements of date in *I.G.*, II², 458: ἐμβολίμωι and its modifier δευτέρα. Apparently ἐμβολίμωι alone normally at this period stood without ἡμερολογδόν. The date Ἐλαφηβολιώνος ἔνηι καὶ νῆαι ἐμβολίμωι occurs without ἡμερολογδόν in this same year 307/6.⁵ It (ἐμβολίμωι) also occurs alone, as I believe, in 323/2 (restored),⁶ and it is on the stone, without ἡμερολογδόν, in 306/5.⁷ It is not necessary to search out parallels, though they exist, later than the end of the fourth century. It must be, therefore, that ἡμερολογδόν was thought necessary because more than one intercalated day was added, and because the cumbersome terminology called for an explanation. In the case of *I.G.*, II², 458, the explanation covered the fact that a day really the 24th was called the 22nd *plus* 2. But this was not always felt necessary, and in 271/0, for example, a date Elaphebolion 13 was called Elaphebolion 9 *plus* 4 without added ἡμερολογδόν,⁸ and in 181/0 a date which should have been Metageitnion 3 was called Hekatombaion 25 *plus* 8, again without added ἡμερολογδόν.⁹

The restoration of *I.G.*, II², 459, where ἡμερολογδόν has been assumed, has always been a problem. This honorary decree was on a stele of which a small fragment is preserved from the upper left corner, including part of the pedimental top, and it is written stoichedon. Pritchett and I studied this in 1940.¹⁰ Oscar Broneer thought that each line should have at least 50 letters,¹¹ but we restored the text with a line of 49, confident that this was close enough to Broneer's theoretical minimum of 50 to be acceptable. Donald Bradeen, who has measured *I.G.*, II², 459, again at my request, reports that no median line can be determined, but that, if a plumb is dropped from where the raking cornice breaks off, the left half of the text had at least 22 letters (with a stoichos of 0.0163 m.). He estimates a minimum of 46, therefore, with the left half of the stone measuring at least 0.37 m., and the restoration of line 2 be-

1 *I.G.*, II², 454 (for the date see Meritt, *The Athenian Year*, p. 106); *Hesperia*, X, 1941, pp. 49-50, No. 12, as restored (for the text see Meritt, *op. cit.*, p. 105); *I.G.*, II², 547, as restored (*ibid.*, pp. 105-106).

2 *Hesperia*, IV, 1935, pp. 553-555; V, 1936, p. 203.

3 *I.G.*, II², 482, 483, 485.

4 *Hesperia*, I, 1932, p. 45, as restored; V, 1936, p. 415, No. 12; IX, 1940, pp. 104-105, No. 20; *I.G.*, II², 500, 501, 502.

5 *I.G.*, II², 358. For the date see Sterling Dow, *H.S.C.P.*, LXVII, 1963, pp. 56-60, and for the restoration see below, pp. 112-113.

6 Meritt, *The Athenian Year*, p. 107, with a new

text of *I.G.*, II², 368.

7 *I.G.*, II², 471.

8 See W. B. Dinsmoor, *Hesperia*, XXIII, 1954, pp. 299-300; Meritt, *The Athenian Year*, pp. 151-152. The date Elaphebolion 9 was already retarded by four days somewhere earlier in the year, but after Metageitnion 9.

9 Pritchett and Meritt, *The Chronology of Hellenistic Athens*, p. 112. For the text see *Hesperia*, XXXII, 1963, pp. 16-17, and for the date see *T.A.P.A.*, XCV, 1964, pp. 238-239.

10 Pritchett and Meritt, *op. cit.*, pp. 18-19.

11 *Hesperia*, II, 1933, p. 400.

ginning with [ἐπι] Ἄναξικρο[άτους]. There will then have been a left margin before the first stoichos of only 0.006 m. Broneer thought this too little, and restored [ἐπ'] Ἄναξικρο[άτους] with a margin which Bradeen estimates at 0.022 m. Hence each line may have had as few as 44 letters.

Other considerations make it clear, however, that the line had either 48, 49 or 50 letters, all being epigraphically possible, for the restoration of line 2 is sure except for the name of the phyle. The distribution of phylai among the prytanies or 307/6 is fairly well known,¹ and the only available names for line 2 are of 9, 10, or 11 letters in the genitive.² Pritchett and I restored in 1940 a line of 49 letters, reading in lines 3-4 a double date Ἄνθε[στηριῶνος εἰκοστῆ, δεκάτει δὲ προτέραι ἡμερολογεῖ]ν. Pritchett has since that time recanted and consistently challenged the use of εἰκοστῆ for the date within the month.³ I have held that the regular progression of prytanies, equally with 34 days each in the second half of 307/6, requires the 20th day of the month to be restored as equal to the 8th day of the ninth prytany.⁴ After all, εἰκοστῆ was used in 406 B.C., in the year following the first known example of δεκάτη προτέρα for the 20th day. I assumed, as did Pritchett with me at one time, that ἡμερολογεῖν, which we both restored, somehow implied a contrast between two ways of naming the same day. Pritchett went so far as to restore the text of *Hesperia*, III, 1934, p. 3, No. 5, with both forward and backward count (contrasted) in a formula with μετ' εἰκάδας.⁵

But the matter ought not to be left here. My belief is that the study of restorations with ἡμερολογεῖν must be based primarily on the one sure example of its usage in 307/6, in *I.G.*, II², 458: Γαμηλιῶνος δευτ[έ]ραι ἐ[μ]βολίμωι ὀγδόε[ι] μετ' εἰκάδας ἡμερολογεῖν. There is no suggestion of contrast between two ways of naming a day; the date is given once and named simply «as one counts days.» For this reason I have sought for a restoration which eliminates the idea of contrast. I have tried Ἄνθε[στηριῶνος δεκάτει προτεραίαι τοῦ μηνὸς ἡμερολογεῖ]ν, still with a line of 49 letters, with the date given only once «as one counts days,» and still with the equation between the festival and the prytany IX 8 = Anthesterion 20. But this does not name intercalated days, and so lacks the essential elements (as noted above) which call for ἡμερολογεῖν. Better restorations will be suggested below.

The year 307/6, being intercalary by virtue of an extraordinary doubling of the month Gamelion,⁶ is the only year in the long span from at least as early as 347/6 down to 299/8 which interrupts the Metonic cycle of intercalations.⁷ The reasons for this aberration are known,⁸ and the correction was made at once by having 306/5 ordinary instead of intercalary. The prytanies of 307/6 from VII to

1 See *Hesperia*, XXXIII, 1964, pp. 14-15.

2 Aiantis or Leontis (9), Erechtheis or Kekropis (10), Akamantis (11).

3 See, for example, *B.C.H.*, LXXXVIII, 1964, p. 464 with note 1.

4 Meritt, *Hesperia*, XXXIII, 1964, pp. 14-15.

5 See above, p. 108.

6 *I.G.*, II², 1487, lines 53-54: ἐπ' Ἄναξικρο[άτους ἄρχοντος - - Γαμηλιῶνος ὑστ[έ]ρου - -].

7 See the sequence of years in *The Athenian Year*, pp. 231-232, and in *T.A.P.A.*, XCV, 1964, pp. 237-238.

8 *Hesperia*, XXXIII, 1964, p. 15.

XII were lengthened from 29 days each to 34 days each to accommodate the extra 30 days suddenly thrust into the festival year. Athenian feeling for equal opportunity and for impartiality in regulating the lengths of prytanies was thus well served. But intercalations of extra days are known, with attendant irregularities in the festival calendar, and one must be prepared to cope with them.

Pritchett has, since 1940, shown a reluctance to deal with the year 307/6. His latest article, on the intercalated month at Athens,¹ begins with a misquotation from Ginzel,² attributing to him the statement that the Athenians normally intercalated the month Skirophorion, whereas Ginzel quite correctly says Posideon. Pritchett's theory that the Athenians intercalated empirically, following no regular cycle, is incompletely documented and omits much of the evidence. His table of illustrations makes no mention of the intercalated Gamelion of 307/6. But it lacks much else besides, like the intercalated Posideon of 193/2³ and the intercalated Posideon in 157/6.⁴ The testimony of *I.G.*, II², 1290 (*sacc.* III *a.*) is almost equally sure for another intercalated Posideon overlooked by Pritchett,⁵ and since the numismatic evidence calls for an intercalary year in 167/6 the calendar equation of *Hesperia*, Suppl. I, p. 135, No. 72, from the sixth prytany should be made with an intercalated Posideon,⁶ also omitted from Pritchett's table.

Pritchett overlooks good evidence for the intercalation of months other than Posideon. Gamelion II of 307/6 is the most obvious omission, but calendar equations in 226/5 attest an intercalated Hekatombaion⁷ and in 223/2 attest some month (it is not certain which) earlier than Posideon.⁸ Pritchett includes neither in his table.

Most serious is the omission of the evidence of Ptolemy⁹ that there was a Posideon I, implying also an intercalated Posideon II, in the archonship of Euandros (382/1). Ptolemy was using the astronomical calendar of Meton to date an eclipse of the moon which had been observed in Babylon.¹⁰ Here the evidence is clear that Posideon was the intercalated month in the Metonic cycle, which allowed no choice or deviation in the nature of empirical or whimsical intercalations. Since the years of the Athenian festival calendar from as early in the fourth century as we have any record down to 299/8 had the same cycle of intercalations as the Metonic calendar,¹¹

1 *Cl. Phil.*, LXIII, 1968, p. 53

2 F. K. Ginzel, *Handbuch der mathematischen und technischen Chronologie*, II (Leipzig, 1911), p. 334.

3 Meritt, *The Athenian Year*, p. 195: Ποσειδεῶνος ἐμβολίμου [ἐν]δεκάτει. The date of the archon Hippias is probably 193/2 (cf. *T.A.P.A.*, XCV, 1964, p. 240).

4 John H. Kent, *Hesperia*, XVI, 1947, p. 224: Ποσειδεῶνος ἐμβολίμου. The year is the archonship of Anthesterios.

5 The restoration is Ποσειδεῶνος ὑστέρου ἐκτεῖς ἰσταμένον. It would be evidence for a second Posideon even if the restoration were made with πρότερου instead of ὑστέρου.

6 Meritt, *The Athenian Year*, p. 183: [Ποσειδεῶνος ὑστέρου πέμπτει ἰσταμένον].

7 See *The Athenian Year*, pp. 152-153. The month Metageitnion was equated with the third (not the second) prytany.

8 See Pritchett and Neugebauer, *Calendars of Athens*, p. 90, supplementing Pritchett and Meritt, *Chronology of Hellenistic Athens*, p. 102 and correcting the forward count of days there suggested with μετ' εικάδας.

9 *Almagest*, IV [ed. Heiberg], pp. 342-343: ἄρχοντος Ἀθήνησιν Εὐάνδρου μηνὸς Ποσειδεῶνος τοῦ πρότερου.

10 See Meritt, *The Athenian Year*, pp. 23-25, with notes 9-11.

11 See *T.A.P.A.*, XCV, 1964, pp. 237-238.

there is the strong presumption, amounting to proof, that for upward at least of a century the intercalated month, when intercalation was called for, was a second Posideon. Special circumstances attended the intercalation of Hekatombaion in 416/5,¹ and the intercalation of Gamelion in 307/6.² But they are the exceptions which prove the rule and do not detract from the right enjoyed by Posideon of being the regularly intercalated month in intercalary years. There was more irregularity in the third and second centuries, for which reasons can sometimes be found in special cases, sometimes not. They do not alter the cyclical rule for intercalating Posideon. Moreover, other intercalations usually introduce such anomalies into the calendar that one can only regard them as eccentric. This is especially true of the second Hekatombaion in 228/7,³ and of the second Anthesterion in 222/1,⁴ which I have discussed elsewhere.⁵

My study of the year 307/6 gave 12 extra days to Elaphebolion and made the correction by subtracting 12 days from Mounichion.⁶ Pritchett's objection to this is strange,⁷ for he has himself proposed even greater anomalies elsewhere,⁸ and it takes no account of the need in 306 B.C. to postpone the Dionysia and of the fact that these adjustments in the festival calendar allow a regular prytany calendar from Gamelion to the end of the year. Pritchett has objected especially to my restoration of the second line of *I.G.*, II², 358,⁹ claiming that «his (Meritt's) restoration for *IG* II², 358 (p. 436), wherein he assigns the letters omicron theta to one letter-space and omega nu to another — all in the same line — does not deserve consideration.»

Pritchett does not understand. First I corrected Dow's statement of the space available for restoration from twelve letter-spaces to fourteen. Then Pritchett has read what I wrote only with enough care to make a tendentious misquotation. Since Dow's study of this text it has been known that it belongs to the year 307/6, and that the last day of the month Elaphebolion was the 25th day of the prytany.¹⁰ It has also been long known that some days early in Elaphebolion fell in the tenth prytany¹¹ and that this prytany belonged to the phyle Hippothontis.¹² If early days in Elaphebolion belonged to Hippothontis (the tenth prytany) the last day of Elaphebolion certainly did. Hence the restoration in line 2 of *I.G.*, II², 358, would normally be [ἐπὶ τῆς

1 See Meritt, *Classical World*, LVI, 1962-1963, pp. 39-41. The date 415/4 in footnote 12 is a misprint for 416/5.

2 See *Hesperia*, XXXIII, 1964, pp. 14-15.

3 *Hesperia*, Suppl. I, p. 74, No. 29, lines 3-5: 'Ἐκατομβαιῶνος [ὕσ]τέρου ἐκ[χ]τει μετ' εἰκάδας ἐμβολίμωι, μιᾷ καὶ τριακοστῇ τῆς πρυτανείας. As Dow remarked, in publishing the text, it «must seem to us one of the most irrational in the whole docket of calendar problems.»

4 *IG*, II², 844, line 33: ἐπὶ Ἀρχελάδου Ἀνθεσιγῶνος ἐμβολίμου. For the date see *The Athenian Year*, p. 235. See above, p. 92 with note 5.

5 *T.A.P.A.*, XCV, 1964, pp. 256-259 Above

pp. 92-93.

6 *Hesperia*, XXXIII, 1964, pp. 13-15; cf. *Hesperia*, XXXII, 1963, p. 437.

7 *B.C.H.*, LXXXVIII, 1964, p. 466, note 2. The reference is to *Hesperia*, XXXII, 1963, p. 437.

8 See, for example, *University of California Publications in Classical Archaeology*, IV, 4, 1963, pp. 331-335.

9 See *Hesperia*, XXXII, 1963, p. 436: [ἐπὶ τῆς Ἰπποθωντίδος δεκά]της πρυτανείας ἦι.

10 *H.S.C.P.*, LXVII, 1963, pp. 56-60.

11 E. g., Pritchett and Meritt, *Chronology of Hellenistic Athens*, p. 16; Meritt, *Hesperia*, XXXII, 1963, p. 437.

12 *S.E.G.*, III, 86.

Ἴπποθωντίδος δεκά]της πρυτανείας ἤι. This is too long by two letters for the stoichedon space available; so I suggested [ἐπὶ τῆς Ἴπποθωντίδος δεκά]της πρυτανείας ἤι (*vel sim.*). The words *vel sim.* are of course essential, but they are omitted by Pritchett from his quotation. They show that I use one device (there are many) to warn that some condensation of the text is necessary.

Let me illustrate once again. A similar crux exists in the text of *Hesperia*, VIII, 1939, p. 31, where the ten letters of Κερροπίδος were inscribed in eight spaces. The scribe apparently cut Κροπίδος, and then corrected his error. This was noted by A. E. Raubitschek in 1945,¹ and the whole performance of the stonecutter was described and explained by me in 1961.² Perhaps in 307/6 the stonecutter wrote ἐπὶ τῆς Ἴππωντίδος, then made an erasure and corrected his error. It can make no difference whether he corrected his error, or how; the fact remains that the name of the prytany (Hippothontis) and its number (tenth) are both necessary for line 2; this is all that matters. The suggestion that he corrected his error, much as did the scribe of 318/7,³ is legitimate (not that it makes any significant difference) and intelligible.⁴ If four letters were cut in the space of two it means that the letters were cut in an erasure and much crowded. Nor is it in any way reprehensible, as Pritchett implies, that this was done «all in the same line.» The error was corrected where it was made, not merely in one line but in one word.

In the restoration of *I.G.*, II², 459, one of the key inscriptions for an understanding of the calendar of 307/6, it is necessary to bear in mind the known retardation of the festival calendar in Gamelion by 2 days,⁵ and the known retardation before Elaphebolion 9 of 11 days.⁶ Moreover, the use of ἡμερολεγδόν, which has been restored by all editors since Stschukareff,⁷ implies the naming of a day with more than one intercalation, so that here too in Anthesterion there will be evidence of a retarded calendar. Since the regular progression of prytanies calls for the 20th day of the month (see above, p. 110) the problem of restoration is how to name this day with the necessary circumlocution, matching the supplement to the requirements of the stoichedon pattern of the text. I suggest the following as one possible solution:

I.G., II², 459

a. 307/6 a. ΣΤΟΙΧ. 49
 Ἄ ρ ι σ τ [- - - - -]
 [ἐπ⁶] Ἄναξιμο[άτους ἄρχοντος ἐπὶ τῆς- - - - - ἰδος ἐνάτης πρυτα]
 [νεί]ας Ἄνθε[στηριῶνος ἐνδεκάτει ἐβδόμει ἐμβολίμωι ἡμερολ]
 [εγδόν] ὄγδ[όει τῆς πρυτανείας ἐκκλησία τῶν προέδρων ἐπεψήφ]
 5 [ἰζεν Ν]ησι[ώτης? - - - - -]
lacuna

1 *T.A.P.A.*, LXXVI, 1945, pp. 106-107.
 2 *The Athenian Year*, pp. 126-127.
 3 In *Hesperia*, VIII, 1939, p. 31, as noted above.
 4 Pritchett does not indicate how he would restore, or explain, this line.
 5 *I.G.*, II², 458.
 6 *Hesperia*, XXXIII, 1964, p. 14, note 40.
 7 See Kirchner's note on *I.G.*, II², 459, and Koehler's note in the commentary on *I.G.*, II, 5, 240b. The adverb ἡμερολεγδόν was used only, so far as is known, in these two inscriptions of 307/6 which show multiple retarded dates, both within two months of each other, and it is probably unique with one particular scribe.

The eleventh day intercalated a seventh time would have been named in straightforward fashion as the eighteenth. If the two days already intercalated in Gamelion had not been compensated by some subsequent omission, the day would actually be the 20th in a normal calendar: the 256th day of the year, corresponding to the 8th day of the ninth prytany.¹ There is no assurance that the two extra days in Gamelion remained so long (almost two months) without compensation. But the restoration does not depend on them. Any two days intercalated anywhere in the calendar before Anthesterion 11 would give the same result. Or, if one assumes the intercalation of only one day, the restoration can be made with δωδεκάται instead of ένδεκάται. The 20th day (256th in the year) would then be Anthesterion 1+12+7 instead of 2+11+7.

The next calendar equation in 307/6 shows Prytany X 3 falling on Elaphebolion 9.² There is here a retardation of 11 days, but the extra days between 'Ανθεστηριῶνος ένδεκάτη (or δωδεκάτη) έβδομη έμβόλιμος and 'Ελαφηβολιῶνος ένάτη ίσταμένου cannot be precisely located. It is a measure of economy to assume that the seven days in Anthesterion had not been adjusted. Because of the long delay after Gamelion 24 (22 plus 2) perhaps the days added there had been adjusted. Whether two other days should be added in Gamelion II or early in Anthesterion, before the 11th, is uncertain. There were surely two more days added after Anthesterion 11 and before Elaphebolion 9. Perhaps they were both in Anthesterion: ένδεκάτη όγδόη έμβόλιμος and ένδεκάτη ένάτη έμβόλιμος. We do not know, and it does not matter. The date Elaphebolion 9, though retarded by 11 days, was not given the modifier ήμερολεγδόν because it was not itself a tripled (or more drastically multiple) date.

This is one possible solution for the restoration of *I.G.*, II², 459. But it has a slight prosopographical disadvantage. If the stoichedon order was duly observed (which there is no reason to doubt, except that such things are never absolutely sure) the name of the chief proedros in line 5 must be restored as [N]ησι[ώτης]. It is an unusual name in Athens, known once from a columella of the first century B.C.,³ and in Roman times known from a visitor to Upper Egypt.⁴ Kirchner also somewhat reluctantly accepted the fifth-century sculptor as an Athenian (*P.A.*, 10668), but this is not certain. Other names (e.g., Θήσιππος, *P.A.*, 7242) hardly need be considered.

On the other hand, if the restoration of the name in line 5 can be made with two letters instead of one before the eta many well-known Athenian names are available (e.g., Κτησι - - -, Μνησι - - -). This extra space can be provided with a stoichedon line of 50 letters, restoring the name of the phyle 'Ακαμαντίδος in line 2 (see p. 110 note 2, above). The date in line 3 will, of course, be differently expressed, but might be made to equal Anthesterion 20 by writing Anthesterion 11 plus 4 and assuming that Anthesterion 11 was itself already retarded by 5 days, that is, 5 + 11 + 4 = 20. Read thus, the text can be restored:

¹ See *Hesperia*, XXXIII, 1964, p. 14.

² *Hesperia*, loc. cit.

³ *I.G.*, II², 6368: Σώστρατος Νησιώτου Κεφαλήθεν (*P.A.*, 10669).

⁴ J. Baillet, *Inscr. Gr. et Lat. des Tombeaux des Rois ou Syringes* (Cairo, 1926), No. 2005: Νησιώτης 'Αθηναίος.

I.G., II², 459

a. 307/6 a.

ΣΤΟΙΧ. 50

Ἄ ρ ι σ τ [- - - - -]
 [ἐπ'] Ἀναξικ[άτους ἄρχοντος ἐπὶ τῆς Ἀκαμαντίδος ἐνάτης πρυτα]
 [νείας] Ἀνθε[στηριῶνος ἐνδεκάτει τετάρτει ἐμβολίμωι ἡμερολ]
 [εγδό]ν ὀγδ[όει τῆς πρυτανείας ἐκκλησίᾳ τῶν προέδρων ἐπεψήφῃ]
 5 [ζεν ..]ησι [- - - - -]

lacuna

It is now evident that ἡμερολεγδόν must not be used in the restoration of the 19-letter lacuna in *Hesperia*, III, 1934, p. 3, No. 5, for there is no possibility of adding in the space available any double date with ἐμβολίμωι in addition to ἡμερολεγδόν. Indeed, the use of ἡμερολεγδόν seems to have been peculiar to the scribe of 307/6, and it is highly doubtful that it was used in any other year or by any other scribe.

The decree of *Hesperia*, III, 1934 p. 3, No. 5, is dated by its secretary to the year 327/6, half way in time between the first recorded use of μετ' εἰκάδας (334/3) and the last recorded use of φθίνοντος (320/19) in the preambles of decrees for naming the waning days of a month.¹ The change in terminology can be here documented by restoring the double date Μουνιχιῶνος [ἐνάτει φθίνοντος, νυνὶ] δ' ἐνάτει μετ' εἰκά[δας] in lines 3-4 of the text in question. The contrast is between the old and the new, and gives notice that μετ' εἰκάδας is now the accepted formula in chancery style.

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¹ See above p. 107 with note 1.