Athenian Calendar Problems

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I. The Rule of Aristotle

The Athenians of the Fifth Century B.C. used a calendar for the term of their Council which was a near equivalent of the solar year.[1] The latest studies show that from 426/5 to 423/2, at least, each conciliar year, so-called, had 366 days.[2] The available evidence indicates further that from 422/1 to 412/1 the average length of the conciliar year was $365\frac{5}{11}$ days.[3] The later years of the century are discussed below (205–11). It is clear that the beginnings and endings of the seasonal (*quasi*-solar) conciliar year could not coincide with the beginnings and endings of the archon's year, which consisted of 354 (or 355) days if the year had twelve lunar months, or of 384 days if the year had thirteen lunar months. The archon's year has come to be called the "festival" year, for the dates of festivals were defined in terms of reference to it; dates in this festival calendar, when a distinction had to be made, were called by the Athenians of the Hellenistic age (*saec.* II/I *a.*) dates κατ' ἄρχοντα. We have come to refer to the year of 12 months as "ordinary" and to the year of 13 months as "intercalary." The extra, or intercalary, month was usually but not always a second Posideon, in the middle of the winter.

[1] Bibliographical references are to be interpreted as follows: ***Archons*** = William Bell Dinsmoor, *The Archons of Athens in the Hellenistic Age* (Cambridge [Mass.] 1931); ***The Athenian Calendar*** = Benjamin Dean Meritt, *The Athenian Calendar in the Fifth Century* (Cambridge [Mass.] 1928); ***Athenian Financial Documents*** = Benjamin Dean Meritt, *Athenian Financial Documents of the Fifth Century* (Ann Arbor 1932); ***The Athenian Year*** = Benjamin Dean Meritt, *The Athenian Year* (Berkeley and Los Angeles 1961); ***Cal. Pub. Cl. Arch.*** = William Kendrick Pritchett, "Ancient Athenian Calendars on Stone," *University of California Publications in Classical Archaeology* IV. 3 (1963); ***Calendars*** = W. Kendrick Pritchett and O. Neugebauer, *The Calendars of Athens* (Cambridge [Mass.] 1947); ***Chronology*** = William Kendrick Pritchett and Benjamin Dean Meritt, *The Chronology of Hellenistic Athens* (Cambridge [Mass.] 1940).

[2] Mabel Lang, *Hesperia* 33 (1964) 146–67. Cf. also *Hesperia* 34 (1965) 224–47.

[3] Meritt, *The Athenian Year* 205.

Beginning in the late fifth century in Athens (407/6) the conciliar year was coterminous with the year of the 12 or 13 lunar months. The year of the Council was divided into ten so-called prytanies, so long as there were the ten *phylai* among which the days of the year were to be distributed. This dispensation lasted until 307/6 when the creation of the two "Macedonian" *phylai* of Antigonis and Demetrias necessitated a division of the conciliar year into twelve prytanies. In 224/3, with the creation of Ptolemais, the division came to thirteen and so remained until 201/0 when the "Macedonian" *phylai* were abolished, and their component demes redistributed among the remaining eleven *phylai*. A well known inscription of this year,[4] unfortunately only poorly preserved, records the assignments to the eleven *phylai*. Almost immediately after the abolition of the "Macedonian" *phylai* the creation of the new *phylê* Attalis brought the number back to twelve, and there it remained throughout the rest of Athens' history until the creation of Hadrianis in 126/7.[5]

The lengths of the individual prytanies varied from time to time according to the number of the *phylai*. When there were ten *phylai*, Aristotle, in describing the Constitution of his day, says that the first four prytanies of the year had 36 days and the last six 35 days each (*Ἀθ. Πολ.* 43.2):

> *βουλὴ δὲ κληροῦται πεντακόσιοι, πεντήκοντα ἀπὸ φυλῆς ἑκάστης. πρυτανεύει δ' ἐν μέρει τῶν φυλῶν ἑκάστη καθ' ὅ τι ἂν λάχωσιν, αἱ μὲν πρῶται τέτταρες ἓξ καὶ τριάκοντα ἡμέρας ἑκάστη, αἱ δὲ ἓξ αἱ ὕστεραι πέντε καὶ τριάκοντα ἡμέρας ἑκάστη· κατὰ σελήνην γὰρ ἄγουσιν τὸν ἐνιαυτόν.*

When there were twelve *phylai*, Pollux (8.115) says that each prytany lasted for a month:

> *πρυτανεία δέ ἐστι χρόνος ὃν ἑκάστη φυλὴ πρυτανεύει· καὶ ὅτε μὲν δέκα ἦσαν, πλείους ἑκάστῃ φυλῇ αἱ ἡμέραι, ἐπεὶ δὲ δώδεκα ἐγένοντο, ἑκάστη φυλὴ μηνὸς πρυτανείαν ἔχει.*

Neither the definition of Aristotle nor the definition of Pollux can

[4] *IG* II².2362. Cf. W. K. Pritchett, *The Five Attic Tribes after Kleisthenes* (Diss. Baltimore 1943) 23–25, and the new revision, also by Pritchett, in *TAPA* 85 (1954) 159–67. A break in the secretary cycle occurred in 201/0; and the secretary of that year, as we know him, was from Ptolemais (deme Aegilia). If *IG* II².934/5 is correctly dated in 201/0, the new cycle had begun as early as the first prytany; and the dissolution of the "Macedonian" *phylai* must have preceded this.

[5] J. A. Notopoulos, *TAPA* 77 (1946) 53–56.

be taken as more than a general rule, yet some scholars have insisted that Aristotle at least must be taken *au pied de la lettre* and that every year during the period of the ten *phylai* must have exactly the pattern which he prescribes. This is the position taken, for example, by W. K. Pritchett in his various writings on the calendar,[6] and which I have challenged in my *The Athenian Year, passim.* There is no difference of opinion, so far as I know, about the translation of what Aristotle wrote. But in the interpretation it is just as legitimate to take the text as laying down a general rule, not necessarily always followed, as it is to insist upon strict application every year with no possibility of any exception, ever, to the rigid pattern of procedure which this implies.[7] Pritchett's ideas about the Athenian calendar are based upon a literal acceptance of Aristotle's definition.

Aristotle was writing a condensed summary, not going *in extenso* into all the details. This is shown by his passing over the intercalary year and the ordinary year of 355 (rather than 354) days. This type of exposition invited the "general" rule. In a recent article[8] Pritchett denies anyone the right to take Aristotle's rule in this general way, saying that "the *onus probandi* lies entirely with those who would deny this statement of a contemporary witness." There is no question of "denying," only a question of interpreting. And even Pritchett must breach the logic of his strict interpretation to explain the intercalary years with prytanies of 38 and 39 days.[9]

After 307/6 the rule of Pollux takes over, and it, quite demonstrably, was not rigorously applied.[10] The attempt to find support for regularity of prytanies in the fourth century from the study of the conciliar year of the fifth century has come to nothing, now that we know the lengths of prytanies from 426/5 to 423/2 not to have followed any one pattern of sequence.[11] It is rather for

[6] See especially Pritchett and Neugebauer, *Calendars* 34–35.

[7] See now *Hesperia* 33 (1964) 12–13. [8] *Cal. Pub. Cl. Arch.* IV.4 (1963) 363.

[9] He has an elaborate scheme of his own devising in *Calendars* 36–37. Cf. Meritt, *The Athenian Year* 9–10.

[10] Pritchett also shows this (*Calendars* 78–79).

[11] The attempt to claim fifth-century support occupies most of Chapter VI of Pritchett and Neugebauer, *Calendars*, and all of Chapter III of Pritchett, *Cal. Pub. Cl. Arch.* IV.4 (1963). Mabel Lang has published a new study of the fundamental epigraphical text (*IG* I².324), to which Pritchett has taken exception, and which Miss Lang has again discussed in its relation to the calendar in *Hesperia* 34 (1965) 224–47.

one who wants to claim that Aristotle's rule brooks no exception to prove his case. There lies the *onus probandi*: that Aristotle must always be taken as literally true. Clearly, the parallels of earlier and later years do not justify a literal interpretation. But they go back a hundred years before Aristotle to a calendar which he was not attempting to describe and forward for more than two hundred years to a calendar, again different from his own, of which he could have had no knowledge.

Quite apart from the inadequacy of Aristotle's "rule" for years of 355 and 384 days,[12] there were other exceptions. He says, first, that the order of prytanies was determined by lot. This was generally true, but it was not the case in 408/7 where the *phylai* for the year were chosen in the reverse of the official order,[13] allocated not by lot but by some rule of convenience which must have seemed good to the Athenians at the time. And in 307/6 B.C. the two new "Macedonian" *phylai* had their turns in prytany seventh and eighth respectively, in proper order for Antigonis and Demetrias, as soon as was practicable after their organization. It would be perverse to assume that either the order or the timing was thus determined by lot,[14] according to the formula of Aristotle. The second half of Aristotle's statement about the lengths of the prytanies cannot, surely, be held to any stricter accountability than the first half of his statement about the method and the sequence of their choice.

In the passage here under discussion, written between 328 and 325 B.C.,[15] Aristotle was describing the practices existing in his day (*Ἀθ. Πολ.* 42.1): *ἔχει δ' ἡ νῦν κατάστασις τῆς πολιτείας τόνδε τὸν τρόπον.* Within the span of time from 337/6[16] down to the death of Aristotle in 322 the nature of the calendar at Athens is fairly well illustrated by the preserved inscriptions. There were, within this range, ten ordinary years in the festival calendar of which six (337/6, 335/4, 334/3, 331/0, 326/5, and 324/3) are in perfect accord with Aristotle's account.[17]

[12] An average of seven intercalations occurred in every nineteen years.

[13] See W. S. Ferguson, "The Athenian Secretaries," *Cornell Studies in Classical Philology* 7 (1898) 26, note A. Pritchett, *BCH* 88 (1964) 468, regards the evidence for the reverse order of prytanies as "purely a coincidence."

[14] See *Hesperia* 33 (1964) 15.

[15] So J. E. Sandys' edition of 1912, page xlix.

[16] The beginning of the sixth Metonic cycle.

[17] See Meritt, *The Athenian Year* 76–110. Allowance must be made for attribution of the extra day in a festival year of 355 days. About this Aristotle is silent.

The confirmation is epigraphical, as is also the evidence that slight variations from Aristotle's order of prytanies occurred in the other four (332/1, 329/8, 327/6, and 323/2). This is close enough to justify the promulgation of a general rule, which is all that one has a right to expect of Aristotle's definition. He should not be accused of error because his rule does not always hold,[18] and the generality which is to be applied to his definition is decided by the confirmatory and non-confirmatory epigraphical evidence. To hold to a rigid conciliar year and to attribute all seeming anomalies to archon's tampering with the festival calendar is unnecessary and, so far as analogies from other centuries are concerned, unwarranted.

New readings of calendar equations from the famous Choiseul marble in Paris by W. K. Pritchett prove the validity of our conclusions as here stated. The year 407/6 turns out to be an ordinary year of the fourth-century type, consisting of 355 days, with the first prytany having 37 days, the second prytany 36 days, prytanies III–VIII 35 days each, and prytanies IX and X 36 days each. This is not the arrangement envisaged by Pritchett. But valuable as his readings are—and nothing but praise is due to his skill in making them—his conclusions are vitiated by his misunderstanding of the stone as an epigraphical monument and by his tampering with the known facts of Athenian constitutional practice.[19] Rather than go through this maze of error, I repeat here the equations, about which Pritchett and I agree, and show the nature of the calendar which they represent.

But first a word about the order of the inscription. The text of *IG* I^2.304B was begun with the record of Erechtheis holding the second prytany. Where earlier payments of the year were inscribed (if any) we do not know and can only conjecture. The preserved record was cut by a skilled stonecutter who used a normal *stoichêdon* line of 73(74) spaces and Attic letters. When there was no room at the bottom of the stone to carry the end of the year's record, he returned to the uninscribed surface at the top and carried on from there with the records for Munichion and later months. The same mason, using the same lettering and the same

[18] Though Aristotle, who brings in Socrates as an interlocutor in Plato's *Laws*, was obviously not immune to error. See Aristotle, *Politics* 1265A, 1–17.

[19] *BCH* 88 (1964) 455–81.

stoichêdon line of 73 spaces, cut eleven lines in this continuation of the record. A different mason, with a different style, using Ionic *gamma*, *eta*, and *lambda*, then took over, and with crowded lettering and some abbreviations continued to the end of the year. Pritchett has to shift from Mason A to Mason B and then back to Mason A again to achieve what he conceives to be a continuous text,[20] and he fails to recognize that the crowding and abbreviation of words used by Mason B were occasioned solely by the fact that he had to get all his text in before encountering the *already inscribed* beginning of the record of Mason A. His text is inexplicable if he had all the rest of the surface *uninscribed* at his disposal clear to the bottom of the stone.[21]

What Pritchett has done is to take the record of one year, divide it in two, assign it to two years, and put the later months of 407/6 into the year 408/7, misled by the coincidence that Aegeis held the ninth prytany in both years. It is hardly even a coincidence that the last equation of the truncated upper section (Prytany II 1 = Metageitnion 8) seems to lead directly up to the first equation of the lower section (Prytany II 13 = Metageitnion 20). In the fourth-century type of calendar these equations would be normal for any festival year that began with Hecatombaeon a hollow month in an ordinary year; and this must have happened many times. Of more significance is the complete break in the nature of the record between the upper and the lower sections. Indeed, the last entry of the upper section breaks off midway and was never completely cut. There is no continuity between it and what follows, and the physical disposition of the stone guarantees the complete rupture at this point. But, more serious than this, Pritchett has *hellênotamiai* whose names are known held over from 408/7 into 407/6; and he is led by the necessity of this, according to his theory, into speculation of the most bizarre kind about the Athenian constitution.[22]

[20] *Op. cit.* (above, note 19) 457.

[21] This was convincingly set forth by Kirchhoff long ago (*IG* I, page 88).

[22] A premonition of this error was already apparent in Pritchett's work in *AJP* 85 (1964) 46 (see my comments, *ibid.* 415). The *hellênotamiai* as an annual, not an overlapping biennial, board are amply documented by the headings of the tribute-quota lists, which number each year (or *ἀρχή*) with an ordinal numeral and, from 430/29 on, name the members of each board, year by year, with no iteration. I do not attempt to answer here all the charges and counter-charges that Pritchett makes in his polemic against me. Most of them are not, I think, worth refutation.

The evidence of the calendar equations is set forth in Table 1 presented here.[23]

Prytany	Date		Month	Date	Evidence	
II	13	=	Metageitnion	20	line	42
II	17	=	Metageitnion	24	line	44
II	17	=	Metageitnion	24	line	46
II	18	=	Metageitnion	[25]	line	48
II	19	=	Metageitnion	26	lines	49–50
II	22	=	Metageitnion	29	lines	51–52
II	23	=	Boedromion	1	lines	53–54
II	24	=	Boedromion	2	line	55
II	26	=	Boedromion	4	lines	56–57
II	30	=	Boedromion	8	lines	58–59
II	30	=	Boedromion	8	lines	60–61
II	36	=	Boedromion	14	lines	62–63
II	36	=	Boedromion	14	line	64
			lacuna			
VIII	23	=	Munichion	3	lines	68–69
VIII	26	=	Munichion	6	line	70
IX	2	=	Munichion	17	lines	71–72
IX	4	=	Munichion	19	line	73
IX	7	=	Munichion	22	line	75
IX	15	=	Thargelion	2	line	77
IX	?	=	Thargelion	11	lines	78–79
IX	?	=	Scirophorion	5	lines	80–81
X	12	=	Scirophorion	?	line	82
X	?	=	Scirophorion	2[?]	lines	84–85
X	23	=	Scirophorion	[?]	line	86
X	33	=	Scirophorion	[?]	line	88
I	?	=	Hecatombaeon	[?]	lines	89–90
I	[20]	=	Hecatombaeon	20	lines	90–91
II	1	=	Metageitnion	8	line	92

TABLE 1. CALENDAR EQUATIONS

[23] The lines are numbered as in Meritt, *Athenian Financial Documents* 119–22. The readings reflect the new evidence adduced by Pritchett from his study of the stone. The student will note that Pritchett, who rebuked me in 1963 (*Cal. Pub. Cl. Arch.* IV.4.287–88) for reading too many letters on the upper reverse of the stone, has now confirmed my key equations in lines 70–75. His correction of my reading in line 79 is welcome, and his new readings in lines 77 and 92 are of the utmost value.

The last equation shows that the year 406/5 began with hollow Hecatombaeon and a first prytany of 36 days (29 + 8 = 36 + 1 = 37); the payment was made on the 37th day of the year. The first day of Hecatombaeon coincided with the first day of the first prytany, as regularly in the fourth century and thereafter.

The last previous complete equation was in Thargelion: Thargelion 2 equaled Prytany IX 15. This is correct, if Thargelion was hollow and Scirophorion full, and if the ninth and tenth prytanies had 36 days each. At the time of the payment there were 57 days still remaining in both calendars (27 + 30 = 21 + 36 = 57).

With Thargelion hollow, Munichion was probably full; but the prytany dates show that only eight days had elapsed between Munichion 22 and Thargelion 2. In other words, two days had been dropped from Munichion between the twentieth and the end of the month (or at least before Thargelion 2).

From Munichion 6 to Munichion 17 was a span of 11 days. This shows, with no irregularity, that Prytany VIII had 35 days, as was normal when the conciliar year was equated with the festival year. But from Boedromion 1 to Munichion 3 the span should be seven months and two days, a total of 209 days (30 + 29 + 30 + 29 + 30 + 29 + 30 + 2 = 209). The equivalent span in the conciliar year was of exactly six prytanies. If the second prytany had 36 days (as we know it did) and the other prytanies 35 days each, this amounts to 211 days. To achieve a proper equation one must assume that somewhere in the interval two days had been added to the festival calendar, balancing the two that were omitted later in Munichion. This too may have happened in Munichion, before the third, though one might suggest the addition in Elaphebolion when such additions were particularly apt to occur in order to postpone the Dionysiac festival.[24]

Finally, the count of days by prytany shows that Prytany I had 37 days, so that Prytany II 13 might equal Metageitnion 20.

Months and prytanies were ordered as follows:[25]

[24] See Meritt, *The Athenian Year* 33, 147–48, 149–50, 151–65, 208.

[25] This comes very close to what I had proposed in *The Athenian Year* 213–15. But Pritchett's new readings show that Metageitnion was hollow and that the addition and subtraction in Munichion amounted to two days only instead of three.

Prytany	I [37]	Hecatombaeon	[30]
Prytany	II 36	Metageitnion	29
Prytany	III [35]	Boedromion	[30]
Prytany	IV [35]	Pyanopsion	[29]
		Maemacterion	[30]
Prytany	V [35]	Posideon	[29]
Prytany	VI [35]	Gamelion	[30]
Prytany	VII [35]	Anthesterion	[29]
Prytany	VIII 35	Elaphebolion	[30]
		Munichion	30^{+2}_{-2}
Prytany	IX [36]	Thargelion	[29]
Prytany	X [36]	Scirophorion	[30]
	355 days		355 days

There is no irregularity in the calendar here except the addition (and then the subtraction) of two days in Munichion. This is the first year that the old fifth-century scheme of having the conciliar year equivalent to the solar (seasonal) year was not followed, for the evidence of the Erechtheum accounts is that the year 408/7 belonged to the earlier dispensation.[26]

Indeed, the year 407/6 seems to have begun with a prytany of 37 days, as if to carry on the tradition. But within the first prytany a new decision was reached, and the prytanies were so scaled as to come out even with the festival year at the end of the last prytany. There is no need to press the evidence, as Pritchett does, to make Prytany VIII have 36 days. He is thinking of the old type of year, and he has the wrong year in mind. Two major calendrical conclusions, which have been much debated, are validated by the new evidence:

1. The "rule" of Aristotle is demonstrably not followed literally in the lengths of prytanies in the first year in which it is descriptive of the calendar.

2. The count of days in the last decade of a hollow month omits that day with which the count φθίνοντος began[27] (not δευτέρα φθίνοντος).[28]

[26] Cf. Meritt, *The Athenian Calendar* 99–100.

[27] See the account in Meritt, *The Athenian Year* 47, 195. Pritchett does not cite this reference, and goes too far in denying that δεκάτη φθίνοντος ever existed. We now have in *IG* I².304B the earliest example of δεκάτη προτέρα for the 20th, but in the same year and same text also εἰκοστή. In *IG* I².4, early in the fifth century, the 20th

This last is shown by the fact that Prytany II 13 equals Metageitnion 20, while Prytany II 17 equals Metageitnion ἕκτη φθίνοντος. Metageitnion was a hollow month, and ἕκτη φθίνοντος comes four days after the 20th. The equations must have been:

Prytany II 13 = δεκάτη προτέρα Μεταγειτνιῶνος
Prytany II 14 = δεκάτη ὑστέρα Μεταγειτνιῶνος
Prytany II 15 = ὀγδόη φθίνοντος Μεταγειτνιῶνος
Prytany II 16 = ἑβδόμη φθίνοντος Μεταγειτνιῶνος
Prytany II 17 = ἕκτη φθίνοντος Μεταγειτνιῶνος
Prytany II 18 = πέμπτη φθίνοντος Μεταγειτνιῶνος
Prytany II 19 = τετρὰς φθίνοντος Μεταγειτνιῶνος
Prytany II 20 = τρίτη φθίνοντος Μεταγειτνιῶνος
Prytany II 21 = δευτέρα φθίνοντος Μεταγειτνιῶνος
Prytany II 22 = ἕνη καὶ νέα Μεταγειτνιῶνος

The record of the year 407/6 ends properly with line 91, where the last payment was made on Hecatombaeon 20, eight days before the Panathenaea.[29] The equation in line 92 gives valuable knowledge of the calendar, but it was a mistake that it was cut here on the stone. The entry is incomplete, any plan to finish it

day was called εἰκάς. Hence εἰκάς (or εἰκάδες) and εἰκοστή also belong to the "chancery style," which Pritchett seems to deny (*BCH* 88 [1964] 464). Now δεκάτη προτέρα and δεκάτη ὑστέρα are known as possible for the 20th and 21st days of the month in the sacred law from Erchia shortly before the middle of the fourth century (cf. G. Daux, *BCH* 87 [1963] 604–10). But δεκάτη προτεραία (not δεκάτη προτέρα) was used for the 20th day in 327/6 (*IG* II².1673, line 77), and Demosthenes (19.59–60) used εἰκάς even though he called the 21st day ὑστέρα δεκάτη. Aristophanes (*Clouds* 17) and Andocides (1.121) both called the 20th day εἰκάδες. There is no doubt about the meaning in Andocides, and the temptation to read Aristophanes as meaning "the twenties" (ὁρῶν ἄγουσαν τὴν σελήνην εἰκάδας), as Pritchett would have it (*CP* 54 [1959] 156–57), should be resisted, because there were no "twenties" in the Athenian calendar, only waning days counted back from the end of the month from one (ἕνη καὶ νέα) to ten. The concept of the last decade of a month as "the twenties" is not Athenian; and even van Leeuwen, who yielded to the temptation to think it might be so, translated and explained ἄγουσα ἡ σελήνη εἰκάδας as *luna quae vigesimum agit diem sui cursus* (commentary in his edition of the *Clouds*). An Eretrian text has δεκάτη μετ' εἰκάδα as the equivalent of δεκάτη φθίνοντος (*IG* XII.9.207, line 39; cf. G. Daux, *REG* 63 [1950] 254), and proves that in this calendar count μετά with the accusative is to be translated "after" and not "among." Clearly there was no settled terminology or exclusive "chancery style" before the end of the fourth century when the count with μετ' εἰκάδας finally replaced the count with φθίνοντος in the last decade of the month.

[28] I do not understand much of Pritchett's note 2 in *BCH* 88 (1964) 466. My belief in the validity of single dates by month in the Attic inscriptions is summarized in *The Athenian Year* 240–42.

[29] The Panathenaic year was the measure of these accounts when the separate conciliar year no longer existed. Cf. Meritt, *Athenian Financial Documents* 108.

	Attic Intercalation	Date of Hecatombaeon 1	Number of Days	Date of Prytany 1 1		Number of Days	Julian Intercalation
411/0	O	July 25	354	⟨Scir. 14⟩	= July 9	⟨366⟩	O
410/09	O	July 14	355	⟨Scir. 26/27⟩	= July 10	⟨366⟩	I
409/8	(I)	July 3	384	Hec. 8	= July 10	366	O
408/7	O	July 22	354	Scir. 19/20	= July 11	365	O
407/6	O	July 11	355	Hec. 1	= July 11	355	O
406/5	O	June 30	354	Hec. 1	= June 30	354	I
405/4	I	June 18	384	Hec. 1	= June 18	384	O
404/3	O	July 7		Hec. 1	= July 8		O

This table is a modification, in the light of recent studies, of that presented by Meritt, *Athenian Financial Documents* 104.

Table 2. Ideal Calendar Scheme

was abandoned, and the stonecutter did not trouble to erase this gratuitous intrusion into the record of the following year. If we had the beginning of the accounts for 406/5, this item would no doubt be found repeated there in full. The equation shows that 406/5 was an ordinary year in the festival calendar. The calendar character of both 407/6 and 406/5 as ordinary may be considered now as definitely known.

The tables of equivalents in Meritt, *Athenian Financial Documents* 176 and *The Athenian Year* 218, must be revised to reflect this new evidence; and the conciliar year must be scaled back from coincidence with the festival year at the beginning of 407/6 with years of 365 or 366 days in the prytany calendar.

Had there been no revolution of the Four Hundred and no régime of the Five Thousand to disturb the prytany calendar of 411/0 and 410/09, the regular progression of the years would, in any case, have brought the festival and the conciliar years to the same beginning in 407/6, as may be illustrated by Table 2 on page 210.

Actually, the conciliar year 410/09 probably began earlier than July 10, for the New Democracy would hardly wait for a theoretical date before reviving the ten prytanies of the Council of the Five Hundred. But it seems quite possible that the theoretical dates were known for the years immediately following 411/0, just as the theoretical date was known for that year itself, and that the new conciliar year began early enough in 410 to allow some part, at least, of the second prytany of the year to fall before the Panathenaic festival, while resuming a normal sequence in 409/8 only to have the system as we know it from the fourth century introduced in 407/6.[30]

In view of the sweeping claims made by Pritchett for his study of the new equations in *IG* I^2.304B, it will be useful here to criticize briefly his ten major conclusions:

1. The year was 407/6, not 408/7; and for the intercalation and suppression of days see above, page 207.

2. We do not know all methods of counting days in the fifth century at Athens: the 20th was known variously as

[30] See Meritt, *Athenian Financial Documents* 104–9, 176, where the suggestion was made that the festival and conciliar years were equated in 409/8. Our present belief favors 407/6.

εἰκοστή, εἰκάς (or εἰκάδες), and δεκάτη προτέρα. The evidence of the scholia to Aristophanes, which name the 20th as εἰκάς, is valid also as giving in one form the name of the day following.

3. The statement that δεκάτη φθίνοντος was not the omitted day in hollow months begs the question; all depends on how the 20th day was named.

4. The use of δεκάτη προτέρα and δεκάτη ὑστέρα for the 20th and 21st of the month is proved possible, at least for the later years of the fifth century.

5. Pritchett's claim for determining the intervals in calendar equations only by his method is not valid. See the discussion above, where the text of *IG* I².304B shows his method twice in error.

6. Evidence to support the theory of a rigid prytany calendar does not continue to accumulate; there is no longer any support whatsoever for such a theory.

7. The text of *IG* I².304B does (rather than does not) end with the Panathenaic year.

8. The year of the *hellênotamiai* (*pace* Pritchett) was the Panathenaic year.

9. *Hellênotamiai* were not in office for two consecutive years. There is not the slightest evidence for this extraordinary idea.

10. Andrewes' theory of differentiation of *hellênotamiai* by function is sound, but such differentiation was by no means necessarily permanent nor did it absolve the whole board from general responsibility. It has nothing to do with their term of office.

II. Texts of the Sixth Metonic Cycle

The calendar character, whether ordinary or intercalary, of some of these years has recently been called into question, and a brief justification is needed for some of the debated cases. There are also some matters of restoration to be reviewed and comments to be made on adjacent intercalary years.

The Year 335/4: Ordinary

The badly preserved upper lines of *IG* II².363 illustrate well the disagreements that can arise in reading letters from a weathered surface. This stone has now been studied by a number of scholars, and readings have been made as well from squeezes in Princeton and Berlin. Photographs are now available.[31] The differences of reading so far are for the letters of lines 3 and 4 as the text is published in *The Athenian Year* 88.

In line 3 the letters have been read as ΑΓΟ, as ΛΕΥ, and as ΛΕC. In line 4 the letters have been read as ΝΘΕ and ΝΟ, the latter by Pritchett and Neugebauer, who restored [*Πυα*]*νο*-[*ψιῶνος* -]. Pritchett now quotes Klaffenbach's reading from the squeeze that nothing is preserved in the space where they had restored the *psi*. My own reading of the stone in 1961 showed that in this space was preserved an upright, as of the letter *epsilon*. Pritchett quotes my description and adds his own comment: "Klaffenbach's reading of the squeeze was more accurate than Meritt's reading of the stone, for the upright stroke is fortuitous." Then he quotes from a letter written to him on October 11, 1961, by Ronald Stroud, "in which the opinion of Dr. Mitsos, Director of the Epigraphical Museum, is also given":[32]

> . . . there is a deep scar on the surface, possibly the remains of a letter but certainly corroded out of all comprehensible form by the action of water. This deterioration is not recent and was probably the result of the stone being in some damp place or perhaps lying face down in mud for many years. The scar is in the shape of a wide vertical stroke, but its bottom is to be found far below the bottom of the iota [what iota?] and its top lies on about the same level as the center of the circular letter. We would not agree that it is possible to interpret the scar as "traces of an epsilon" because of its position and the complete absence of any horizontal strokes joining it.

It is not correct to say that the deep scar is "corroded out of all comprehensible form." It is a vertical stroke, not round, not slanting, and it is in the left of its *stoichos*. Its form is very significant indeed and, placed as it is upon the stone, it surely

[31] See *Hesperia* 10 (1941) 48 and *Cal. Pub. Cl. Arch.* IV.4 (1963) Plate 23 *a*.
[32] *Cal. Pub. Cl. Arch.* IV.4 (1963) 284.

represents parts of an ancient letter. We have in the vertical stroke here much of the same kind of deepening that afflicted the lower parts of the uprights of the figure H in *IG* I².324, line 32, which Mabel Lang and I have discussed elsewhere.[33] The action of weather and rain did not in either case begin at the top of the vertical stroke. As in the H of the *logistai* inscription, the weathering probably began here also below the very top of the vertical. This explains the fact that the top of the weathered portion "lies on about the same level as the center of the circular letter." And of course the weathering carried below the normal level of the bottoms of letters elsewhere in the same line. This explains the downward extension of the scar.

So Stroud's reason for denying the possibility of *epsilon* because of the position of what he calls the scar is not binding. The scar is to be explained as normal weathering which creates the seeming change of position to which he objects. Stroud's other reason for denying that the letter could have been *epsilon* is "the complete absence of any horizontal strokes joining it." Except for the scar the traces of strokes in this letter-space have been entirely worn away.

I call attention to Kirchner's reading of this text in *IG* II².363 as [*Ἀ*]*νθε*[*στηριῶνος*] rather than as [*Πνα*]*νο*[*ψιῶνος*], derived from the majuscule of *IG* II.5.492 *f*, which in turn depends on Lolling's reading from the stone itself NOI/.[34] All Lolling's readings are not correct, but he had no doubt about the *nu*, a circular letter, and a vertical stroke following, and we can control him here and elsewhere from photograph and squeeze.

The *nu* which Lolling read in its entirety from the stone was accepted by Pritchett and Neugebauer in 1947 and by me in 1961. Indeed, I think it has not been questioned until now in 1963 when Pritchett is again devoting his attention to this text. He quotes again from a letter written to him by Stroud and Mitsos about this letter *nu*:

> The vertical stroke slants slightly, the top inclining to the left. In all nu's on the stone the right vertical slants slightly the other way; the top inclines to the right.

[33] *Hesperia* 34 (1965) 236–39.

[34] *Sitz. Ak. Berlin* 1887, page 1073, No. 5. Lolling's text makes it quite clear that the vertical hasta in the third letter-space is to the left of center, correct as for *epsilon*.

Even if this observation were sound, it would prove nothing. But it is not sound. In line 12, for example, the letter *nu* appears twice: once the right stroke is exactly vertical, once it tips toward the right. But the letters are both *nu*, all strokes preserved.[35] As for the letter in line 4, Mitsos assures Pritchett[36] that there is original surface to the left of the upright, but no trace of a joining diagonal stroke. He and Stroud "did not believe that the original letter was a nu."

But here again Pritchett, in following the advice of Mitsos and Stroud, denies the *nu* because no diagonal stroke joins the preserved vertical, though on the same page he reports that "careful examination" reveals many instances in which the hastas do not join. He ignores Lolling's reading of the complete *nu*, which I would read, and do read, from my Princeton squeeze today. The left vertical of the *nu* follows the edge of the break, and the diagonal comes down to the right vertical (which Stroud and Mitsos did not see) about 0.004 m. above its lower tip, almost touching.

Pritchett's caution about reading the letters of this inscription is well taken, and he notes that the letters were originally rather shallow, and that acids have eaten into the stone. Then he proposes, in spite of this, the possibility of reading the month "Mounichion":[37]

> in the third letter-space, above the scar which Meritt misread as part of an epsilon, are two faint marks of what resembles the upper part of an upsilon.

This involves, of course, reading the *nu* as *mu* and ignoring the evidence of what other scholars have reported and of what may still be seen today.

All this is very tedious, but necessary to clear up misconceptions about this text. Yet out of evil cometh good. We can, I believe, go farther in the reading and restoration of this document.

For example, with the name of the month [*'A*]*νθε*[*στηριῶνος*] in lines 4–5, the letters in line 3 must belong to the patronymic of the secretary. If these letters are read as ΑΓΟ as Lolling first

[35] Pritchett's photograph does not show the whole stone, which may be seen in the photograph in *Hesperia* 10 (1941) 48.

[36] *Cal. Pub. Cl. Arch.* IV.4 (1963) 284.

[37] Pritchett (above, note 36) 285.

recorded them(see also the photographs again), they may belong to the one known secretary within the range in which this inscription must be dated who has a patronymic containing this combination of letters: *Πρόξενος Πυλαγόρου Ἀχερδούσιος* of 335/4. Since the text is "*stoichêdon* 29," lines 3–5 may be completed with normal restorations as follows:

[υτανείας ἦι *Πρόξενος Πυλ*]αγό[ρου *Ἀχ*]
[ερδούσιος ἐγραμμάτευε· *Ἀ*]νθ̣ε̣[στηριῶ]
[νος – – – – – – etc. – – – – – – –]

A variation is possible in line 4, which one may read, if one so desires, as:

[ερδόσιος ἐγραμμάτευεν· *Ἀ*]νθ̣ε̣[στηριῶ]

The use of *o* for *ου* continued sporadically down even into the third century.

The apparent difficulty of the restoration, and doubtless the reason why this has not been accepted before, is the letter H in line 2 above the A of [*Πυλ*]αγό[ρου]. The numeral for the prytany should normally appear here, and no restoration can be made with the correct numeral [ἑβδόμ]η[ς]. But if the numeral was omitted,[38] the restoration can be made with [*Αἰγ*]η[ίδος] or [*Οἰν*]η[ίδος]. Indeed the squeeze shows part of the central hasta following the H, and the text may be restored as follows:

[. . . . . ^{12} . . . . . ἐπὶ τῆς .ἰ.]ηι̣[δος πρυ]
[τανείας ν̲ ἦι *Πρόξενος Πυλ*]αγό[ρου *Ἀχ*]
[ερδούσιος ἐγραμμάτευε· *Ἀ*]νθ̣ε̣[στηριῶ]
5 [νος . . . . . ^{15} . . . . . τῆ]ς πρυ[ταν]

The uninscribed space in line 3 is paralleled by the similar uninscribed space in the same position in the prescript of *IG* II^2.452.[39]

Hence the text belongs to the archonship of Euaenetus in 335/4. The calendar of this year is, within limits, well known. The year was ordinary and contained 355 days.[40] Its pattern of months and prytanies may be read as follows:[41]

Months	29	30	30	29	30	29	30	30	29	30	29	30=355
Prytanies	36	36	36	36	35	36	35	35	35			35=355

[38] Pritchett (above, note 36) 283 has noted that "the inscription must be dated in a period when omissions of some elements of the prescript were frequent."

[39] Cf. Meritt, *The Athenian Year* 96.

[40] See Meritt (above, note 39) 79–82, 132–33.

[41] With a slight modification only of that offered in Meritt (above, note 39) 82.

The eleventh day of Anthesterion and the third day of the seventh prytany are thus both the 218th day of the year, and this calendar equation may be made in line 5:

[. . . . . 22 . . . . . ἐπ' Εὐαιν]
[έτου ἄρχοντος ἐπὶ τῆς .ἰ.]ηι[δος πρυ]
[τανείας ν ἧι Πρόξενος Πυλ]αγό[ρου Ἀχ]
[ερδούσιος ἐγραμμάτευε· Ἀ]νθ̣ε̣[στηριῶ]
5 [ῶνος ἐνδεκάτει, τρίτει τῆ]ς πρυ[τανε]
[ίας· ἐκκλησία κυρία· τῶν π]ροέδρω[ν ἐπ]
[εψήφιζεν . . . . . 13 . . . . .]εύς ν ν ν ν ν

The beginning of the inscription is uncertain, for the top of the stone is not preserved.

It follows, of course, from the dating of *IG* II².363 in 335/4 that the connection with *IG* II².348 of 331/0 is broken. The composite name *Νικόστρατος Ἀρχέλεω ἐκ Μυρρινούττης* is to be deleted from the records: the reading in *IG* II².348 remains as given in the *Corpus*.

The Year 328/7: Intercalary

This year has been taken by Pritchett and Neugebauer to be ordinary.[42] Pritchett still holds that my interpretation of it as an intercalary year is in error.[43] He maintains a thesis that I have erroneously assigned *IG* II².452 to the year 328/7 with the added fault of reading the date of the document incorrectly as 31st day of the sixth prytany. He publishes a sketch of the numeral of date made by Stamires in 1947 and reported by Vanderpool, supplementing this with a photograph of the stone.[44] The sketch is of no value, whereas the photograph supports my reading rather than his. The letter is of course the *mu* of *μιᾶι*, quite clear in the photograph and incompatible with the delta read by Stamires. Nothing is preserved of the second letter except the upright stroke, an *iota*. I had read this in 1938 as a doubtful *nu*.[45] The text was then printed as [ἐ]νάτ̣ε[ι– – –], with a dot under the *tau*. In point of fact both the *nu* and the *epsilon* as well as the *tau* should have appeared with dots underneath. I make no apology for saying that the new reading of the date was clear on the squeeze;

[42] *Calendars* 51.
[43] *The Athenian Year* 95–97. See Pritchett, *Cal. Pub. Cl. Arch.* IV.4 (1963) 279–83.
[44] Pritchett (above, note 43) Plate 22 *b*.
[45] *AJP* 59 (1938) 499.

it was indeed so, each stroke of its doubtful letter plain to see. That two of the dots were lost in printing illustrates one of the hazards of publication.[46] Pritchett complains that I have no explanation of the difference between my texts of 1938 and 1961 "although the two contradict each other in every letter except one." Stroke for stroke there is actually no contradiction; the text of 1961 read from the stone is merely a complete version of that read in 1938 from the squeeze. Pritchett returns to this text in his comments on methodology.[47] I will only say of this that my better study of the stone gives an easy transfer from the reading of 1938 to that of 1961, while no justification whatever can be made for his purported reading by others in 1947.

Dow has made a study of this text from his own squeezes, and now reads μι[ᾶ]ι κ[αὶ – – – –], thus confirming the date as the 31st of the prytany.[48] The second letter he prints without a dot beneath (quite correctly), saying that "the whole of an iota stands out clearly." Pritchett did not think the stroke properly centered for *iota*, and attempted to explain how the horizontal strokes of *epsilon* (as he and Stamires interpreted it) could fail to appear; but see his photograph. His "upper slanting stroke of an upsilon" in the third letter space of μιᾶι lies outside its *stoichos*, and to the left of it (a gouge) the side strokes of *alpha* are visible even in the photograph, and more so—as my notes remind me—on the stone.

The assignment of *IG* II².354 and 452 to the same year 328/7 is questioned by Pritchett.[49] The evidence, which he does not know, or does not cite, is conclusive that the assignment is correct. Let us consider *IG* II².354 first. Irrespective of its calendar equation, the archon whose name is to be restored in line 2 must have been *Εὐθύκριτος*. This was demonstrated by A. Reusch in 1880,[50] and has been universally accepted since.[51] The demotic of the secretary (*Ἀγνούσιος*), taken from *IG* II².452, conforms to the *stoichêdon* order of the text and agrees with the secretary cycle

[46] See A. G. Woodhead, *The Study of Greek Inscriptions* (Cambridge 1959) 121, note 7. An excellent example of how this can happen may be seen in the first line of the second paragraph of *Hesperia* 14 (1945) 125, where the dot has been lost from the epsilon of [ἐπ]ιστάτε, yet where the author specifically states that the letter is shown as only partly preserved (i.e. with the dot beneath).

[47] *Cal. Pub. Cl. Arch.* IV.4 (1963) 368. [48] *Hesperia* 32 (1963) 349.

[49] *Cal. Pub. Cl. Arch.* IV.4 (1963) 283. [50] *Hermes* 15 (1880) 341.

[51] *IG* II.5, page 52, No. 178 *b*; *IG* II².354; Pritchett and Meritt, *Chronology* 75, 80; Pritchett and Neugebauer, *Calendars* 51; etc.

for this year when *Εὐετίων Αὐτοκλείδου Σφήττιος*, who proposed a motion before the Council recorded in this inscription (*IG* II².354, line 32), is otherwise known to have been a councilor.[52]

As for *IG* II².452, its assignment to the year 328/7 was made by me in 1938,[53] and the secretary from Hagnous falls into place in the secretary cycle. Pritchett and I together agreed upon this date in 1940, restoring in line 11 the name of the orator Lycurgus, who died in 324.[54]. Now Pritchett has changed his mind and wishes, on the basis of his opinion about the "poor workmanship" of the stele, which "suggests a date after 315 B.C. (or thereabouts)," to remove the inscription to a different year.[55] He overlooks D. M. Lewis's identification of the last *symproedros Βοῦλ[ις Θοραιεύς]* of line 10 with the known councilor of 328/7 *Βοῦλις Θοραιεύ(ς)*.[56] This identification was made by Lewis in 1954,[57] reported in the *Supplementum Epigraphicum Graecum* in 1957,[58] and again by me in 1961.[59] Yet Pritchett notes it only to the extent of saying that "Meritt assumes one uninscribed space in one line and two in another." The two uninscribed spaces come at the end of the list of *symproedroi*, and allow the name of the orator Lycurgus to begin a new line. Finally, his references to possible parallels with the inscription published in *The Athenian Year* 119–20 are already out of date, for this text is now better published in *Hesperia* 32 (1963) 431–32.[60]

One final clinching proof that *IG* II².354 and 452 both belong to the same year and that that year was 328/7 is given by an inscription from Oropus[61] which names *Πυθόδηλος Ἀγνούσιο(ς)* as secretary of the Council in the archonship of Euthycritus. This is the name which appears as secretary in *IG* II².354 as *Πυθόδηλος*

[52] *Εὐετίων Σφήττιο(ς)*: *Ἀρχ. Ἐφ.* 1917, page 41, line 12.

[53] *AJP* 59 (1938) 499.

[54] Pritchett and Meritt, *Chronology* 2, note 7; see S. Dow, *Hesperia* 32 (1963) 348.

[55] *Cal. Pub. Cl. Arch.* IV.4 (1963) 283.

[56] *Βοῦλις Θοραιεύ(ς)*: *Ἀρχ. Ἐφ.* 1917, page 41, line 17.

[57] *BSA* 49 (1954) 49. [58] *SEG* 14 (1957) 56.

[59] *The Athenian Year* 95, note 33.

[60] In writing of this text again (*Cal. Pub. Cl. Arch.* IV.4 [1963] 376–77) Pritchett did not have the benefit of the latest publications, either Dow's in *HSCP* 67 (1963) 73–75, or mine. I think it can be claimed now that a reasonably good text has at last been achieved (cf. *Hesperia* 32 [1963] 432). The pessimism with which Pritchett would have abandoned the effort is unwarranted; and I still regard this text, as I did in 1944, as a good example of how to restore the complete preamble with the help of available evidence (cf. *Hesperia* 13 [1944] 235, note 62).

[61] *Ἀρχ. Ἐφ.* 1917, page 41, line 15, Col. II.

Πυθοδήλου [*Ἀγνούσιος*] and in *IG* II².452 as [*Πυθόδηλος Πυθοδήλ*]*ου Ἀγνούσιος*. I regard the question of date of all three inscriptions as closed.

The problem of the calendar of 328/7 remains, but it is no longer possible to contemplate the reconstruction of an ordinary year.[62] The year was intercalary, and Gamelion 18 was the 18th day of the eighth month and 225th day of the year: i.e.

$$30+29+30+29+30+29+30+18=225.$$

This coincided with the 31st day of the 6th prytany: i.e.

$$39+39+39+39+38+31=225.^{63}$$

All this is entirely normal. Now Pritchett has suggested that in *IG* II².354, line 5, the final letter might be read as *gamma*,[64] and he contemplates even the possibility of returning to a suggestion of Koumanoudes that the date be *ἔνηι καὶ νείαι Γ*[*αμηλιῶνος*]. Since the prytany was the eighth (line 3), he envisages some difficulty in equating any date in the eighth prytany with the last day of Gamelion. There is, indeed, very serious difficulty, for we know already that the 18th of Gamelion, by all acceptable standards of restoration and with no irregularity whatsoever, fell in the sixth prytany.[65] Wisely, I think, he abandons this suggestion and returns to the less bizarre but still anomalous *π*[*έμπτει καὶ δεκάτ*]*ηι* which he and Neugebauer offered in 1947.[66] He finds this preferable to my suggestion of 1961: *ἔνηι καὶ νείαι π*[*ροτέραι, <πέμπτει καὶ> εἰκοστ*]*ῆι τῆς πρυτανείας*, objecting in part to my having omitted the name of the month and having utilized in the restoration an uncertain *pi*, though he himself in the restoration which he favors omits the name of the month and utilizes this same uncertain *pi*.[67] He also objects to a date *ἔνηι*

[62] Pritchett, *Cal. Pub. Cl. Arch.* IV.4 (1963) 283.

[63] See Meritt, *The Athenian Year* 96. [64] *Cal. Pub. Cl. Arch.* IV.4 (1963) 280–81.

[65] Dow, *Hesperia* 32 (1963) 349, comments on the absence of *nu*-movable from [*ἐ*]*γρ*[*αμμάτευε*] in line 4 as against regular usage. But there was no iron-clad rule, and use or non-use must be considered no more than a matter of style. Cf. *IG* II².362, 380, 448 line 37, 495, etc.

[66] Pritchett, *Cal. Pub. Cl. Arch.* IV.4 (1963) 280. Cf. Pritchett and Neugebauer, *Calendars* 51–52.

[67] This *pi* should be dotted, for epigraphically it might be *gamma*. I agree with Pritchett that this is so and that *epsilon* is not possible. The text of *IG* II².354 is now published by R. O. Hubbe in *Hesperia* 28 (1959) 171–72. (Cf. *SEG* 18 [1962] No. 14.) He makes no restoration of the date in line 6.

καὶ νέαι προτέραι (using the word προτέρα) for any date except the penultimate day of the final month Scirophorion. This must surely be some private rule of Pritchett's own: if there were two days named ἕνη καὶ νέα, the first of the two was sometimes (not always) called ἕνη καὶ νέα προτέρα, just as the two days for 20th and 21st were distinguished by having the 20th appear as δεκάτη προτέρα, while the 21st was known as δεκάτη ὑστέρα. One must here take his choice of irregularities: I omit πέμπτει καὶ (a scribal error, assumed) and have a normal calendar; Pritchett writes π[έμπτει καὶ δεκάτ]ηι (assuming an error in *stoichêdon* order) and has a calendar anomaly.[68] With his ideas about the calendar this seems to him no very important matter. But his whole treatment of the problem and of *IG* II².354 and 452 is marred by false readings and neglect of the collateral evidence.

The Year 327/6: Ordinary

This year was taken by Pritchett and Neugebauer to be intercalary, though admittedly the evidence was ambiguous.[69] Following the intercalary year 328/7, it was surely ordinary; and calendar equations in it (since this is possible) should be so restored. Pritchett has now again turned his attention to the documents of this year, and once more discusses the restoration of the text first published in *Hesperia* 3 (1934) 3–4 (No. 5).[70]

We have both suggested new readings since that time, and it has become evident not only that new readings can be made but also that they must be controlled by evidence that was available but neglected when the stone was discovered in 1932. Pritchett has commented on this, calling attention to the photograph in *Hesperia* 3 (1934) 4, and to the squeezes in the Princeton collection. I examined the stone in 1958 and reported that only the right-hand tip of a low horizontal stroke was preserved at the edge of the stone in the fourth line, as of "sigma, epsilon, or perhaps delta."[71] I have examined the stone again in May of 1964, and once more report the clear trace of this bottom stroke.[72] It is not apparent in the *Hesperia* photograph of 1934, nor is it recorded on the master

[68] Pritchett, *Cal. Pub. Cl. Arch.* IV.4 (1963) 376, comes back again to the omission of πέμπτει καί; all the facts considered, I still prefer the omission to *his* anomaly and the distorted calendar.

[69] *Calendars of Athens* 52–54.

[70] *Cal. Pub. Cl. Arch.* IV.4 (1963) 273–76.

[71] *The Athenian Year* 101.

[72] Pritchett, *Cal. Pub. Cl. Arch.* IV.4 (1963) 274, also reports it, and its discoloration.

inventory card in the files of the Agora Museum, but it is plainly distinguished by the original surface patina still marking the line of the stroke with the normal rusty color of weathered Pentelic marble. This is the only observable patina that has been preserved for this letter, and the record of it must supplement the evidence recorded on squeezes and photograph in 1934. The return side-stroke, as of the sloping right-hand bar of *delta*, which appears in the photograph of 1934, and indeed on the squeezes, preserves no surface patina and can be made out only with the greatest difficulty on the stone itself. In *The Athenian Year* I made no mention of it, and it too is not recorded on the master inventory card. Yet photographs taken in 1932 (published in 1934) and again in 1964 both show this return. The letter must indeed be construed as *delta*.

In 1934 I assumed that the phrase ἐκκλησία ἐν τῶι θεάτρωι occupied all the available space between the month name *Μουνιχιῶνος* and the date within the month. This date had to be, if the premise was correct, ἐνάτει μετ' εἰκά[δας]. Of the *nu* in ἐνάτει the left vertical stroke was (and still is, I think) visible. There was no trace preserved of the right stroke, and the letter might have been taken for *kappa*; I might indeed have so written it then except for my belief in the restoration of the phrase with ἐκκλησία and my doubt that any date in Athens was ever written δεκάτει μετ' εἰκάδας. Now with the *delta* assured the reading δεκάτει deserves consideration. Despite Pritchett's comment that the stone is no longer in the same condition as when it was discovered, I see no evidence of change or deterioration. Instead of claiming that "all traces of the nu of the word *enatei* have disappeared," I would call attention to the almost complete preservation of the left vertical stroke (as in 1934). Having left no patina, the mark is hard to make out on the stone; but this was just as true in 1934 as in 1964, and no stroke suitable for either *nu* or *kappa* is shown on the master inventory card in the Agora Museum. There is still no trace of any diagonal stroke of either *kappa* or *nu*; and the letter may, I think, be restored either way, with only the left vertical stroke preserved.

The restoration to be made is by no means obvious, but the appearance in an Eretrian text[73] of δεκάτης μετ' εἰκάδα, the

[73] *IG* XII.9.207, line 39.

equivalent of Attic δεκάτης φθίνοντος,[74] points the way to a possible solution here at a time in Athens when the count of days with φθίνοντος in the last decade of a month was giving way to the count with μετ' εἰκάδας. Pritchett has offered a restoration with ἐνάτει μετ' εἰκάδας, suggesting "the only calendric phrase known to me which meets the requirements of the lacuna and syntax" Μουνιχιῶνος [δευτέραι, ἡμερολεγδὸν] δ' ἐνάτει μετ' εἰκά[δας], which he translates "on the second day (in the course of the twenties) which is the ninth day in the course of the twenties as one counts days."[75] I have doubts of this and have cited also Arnold Gomme's criticism of it.[76] It is not so much the use of ἡμερολεγδόν, but rather the omission of μετ' εἰκάδας with δευτέραι which offends. I think Gomme quite justified in saying that he "cannot understand the restoration δευτέραι . . . to mean 22nd of the month." Nor can I. When Pritchett quotes a restoration once proposed by me as his model and justification,[77] he claims that his restoration here differs from mine "only in the order of the words." This is, however, a very significant difference, for the addition of the definitive μετ' εἰκάδας is obligatory when the date within the month is first mentioned. Had Pritchett been able here to restore Μουνιχιῶνος [δευτέραι μετ' εἰκάδας] ἐνάτει δὲ ἡμερολεγδόν, there would have been no question of the propriety of citing my restoration as his model. It is not at all strange, as Pritchett says, that I find his Greek difficult, for his Greek of 1963 is quite different from that which I accepted as possible for my text in 1935. Rather, what is strange is that Pritchett now (in 1963) harks back for his model and justification to a restoration made in 1935 when he and I together (in 1940) found another restoration for the text of *IG* II².459, which we both considered preferable, and which spells out the dates in full on both sides of the equation: Ἀνθε[στηριῶνος εἰκοστῆι, δεκάτηι δὲ προτέραι ἡμερολεγδό]ν.[78] The use of ἡμερολεγδόν to mean "as one counts days" is justified here because of the various ways of

[74] Cf. G. Daux, *REG* 63 (1950) 254.

[75] *Cal. Pub. Cl. Arch.* IV.4 (1963) 274.

[76] *The Athenian Year* 101, note 43.

[77] *Hesperia* 4 (1935) 540: Ἀνθε[στηριῶνος ἐνάτει μετ' εἰκάδας δευτέραι δὲ ἡμερολεγδό]ν.

[78] Pritchett and Meritt, *Chronology* 18–19 and 21 (Table). It must be noted that, when the date by month in *IG* II².459 is restored as the 20th, the date by prytany can be restored as the 8th; and a regular succession of prytanies is possible in 307/6 in the pattern outlined in *Hesperia* 33 (1964) 13.

counting the 20th and 21st days of the month during the greater part of the fourth century.[79] Nor is there here the difficulty that one definition of day requires forward count with μετ' εἰκάδας. Though he claims[80] that his restoration, if correct, is "corroborative evidence that, from the beginning, count with the phrase *met' eikadas* was backward, corresponding to the count with *phthinontos*," it is equally clear from the very equation which he proposes that the restoration would be corroborative evidence for forward count as well. In the definition of date the text would have given the count first forward and then backward, and Pritchett has gone to some pains to explain elsewhere[81] that, in his opinion, the count of days with *met' eikadas* was never forward. His belief seems to be that the use of the adverb ἡμερολεγδόν was necessary to distinguish the real calendar count (always backward) from a forward count which the unwary might have been deceived into believing possible. Yet in the one calendar definition where the adverb ἡμερολεγδόν surely occurs there is in fact no contrast between forward and backward count.[82] The phrase "as one counts days" defines the day (*IG* II².458) Γαμηλιῶνος δευτ[έ]ραι ἐ[μ]βολίμωι ὀγδόε[ι] μετ' εἰκάδας ἡμερολεγδόν as being the second intercalated 22nd (a calendric convention) rather than the 24th as non-tampered calendar count would have had it.[83] The second of the three alleged definitions with ἡμερολεγδόν, according to the better restoration, gives the calendar way of saying 20th: δεκάτει προτέραι rather than εἰκοστεῖ. The third equation here under discussion is Pritchett's restoration, and no argument can be based upon it. It is, therefore, hypothesis and not the knowledgeable fact that it purports to be when Pritchett writes that,[84]

> Three fourth-century inscriptions add the word ἡμερολεγδόν in qualification of the *met' eikadas* phrase, and two of these three seem to contain double dating with the phrase; that is, the count is given both forward and backward.

[79] *The Athenian Year* 46, note 6.

[80] Pritchett, *Cal. Pub. Cl. Arch.* IV.4 (1963) 274.

[81] Pritchett (above, note 80) 349–54.

[82] There are three alleged occurrences: *IG* II².458, 459, and *Hesperia* 3 (1934) 3–4 (No. 5). See Pritchett, *Cal. Pub. Cl. Arch.* IV.4 (1963) 349, note 44.

[83] For the day, see Meritt, *Hesperia* 33 (1964) 14, with note 38.

[84] *Cal. Pub. Cl. Arch.* IV.4 (1963) 349.

When I wrote *The Athenian Year*, I might have welcomed some such indication that forward count was possible. I have since come to believe that the few remaining cases of seeming forward count, not yet explained away, can be best resolved by assuming other types of error and calendar "tampering," so that even *IG* II².680 and 974[85] may yet have backward count. The sacrifice of this "hard core" is not too high a price to pay for a consistent direction of count in the last decade of the month.[86] The adverb ἡμερολεγδόν, therefore, does not distinguish the two directions of count, but only defines in calendar terms a way of naming a day.

Pritchett's suggested restoration of *Hesperia* 3 (1934) 3–4 (No. 5) is in error not only because of the Greek (to which Gomme and I have both objected) but also because there was, in all probability, no supposed forward count to make the contrast with ἐνάτει μετ' εἰκάδας. I have no suggestion for the restoration, but believe that it should be made either with ἐ̣νάτει μετ' εἰκά[δας] or with δε̣κάτει μετ' εἰκά[δας]. If it be with the latter, the restoration represents a stage in the development of the terminology for the 21st day of the month, before δεκάτη μετ' εἰκάδας and δεκάτη φθίνοντος were taken over completely by δεκάτη ὑστέρα at the end of the century.[87]

Debate about the readings of *IG* II².356 is now largely speculative, for nothing can be read in the critical lines on the stone itself. Yet, if earlier editors are to be believed, certain things are clear: the prytany was Hippothontis, and the calendar equation gave the 28th or 29th of the month as the 26th of the prytany, δευτ[έραι] φθ[ίν]οντος = ἕκτει [κ]α[ὶ ϵ]ἰ[κ]οσ[τῆ]ι τῆ[ς π]ρυτανείά[ς]. Moreover, the number of the month had seven letters: πέμπτης, ἑβδόμης, or δεκάτης. Of these only ἑβδόμης yields a normal calendar equation, as Dinsmoor[88] observed. I restore the numeral as [ἑ]β̣[δόμης], reading a doubtful *epsilon* as a doubtful *beta*.

When scholars like Lolling and Wilhelm have reported their readings of a difficult stone, one must make what use of these

[85] Definitely an intercalary year in 137/6. See below, page 253.

[86] I have been moved to adopt this solution after discussion with David Lewis (cf. *JHS* 83 [1963] 195), and because of our knowledge now that archon's "tampering" could omit as well as add days in the festival calendar. Particularly persuasive has been Leonardo Taran's observation about the subtraction of days in 403/2 (cf. *The Athenian Year* 206, note 11, and Pritchett, *Cal. Pub. Cl. Arch.* IV.4 [1963] 342–43).

[87] Cf. above, pages 208–9, note 27.

[88] *Archons* 371.

readings one can, and the question of what to enclose within square brackets will almost invariably be answered differently by different editors. I would cite as one example of my own practice the new text of *IG* II².678.[89] Here some of the doubtfully read letters are given in their corrected form as certain (like φυλετῶν in line 4); some are reported as restoration. But the text is without question superior to any so far published, and to carry an *apparatus* along with every new use of the inscription, discussing the numerous and at times quite obvious inaccuracies of reading, would be a costly and unnecessary burden. In *IG* II².356 there is no doubt that the secretary's name was *Αὐτοκλῆς Αὐτίου Ἀχαρνεύς*, and that some part of this was what Wilhelm saw when he made his transcription. Just how it should be printed is a matter of choice rather than a question of "careful scholarship."[90] Klaffenbach assures me that there is in the Berlin Academy no record of Lolling's notes; Wilhelm thought he saw parts of five letters in the patronymic. If he did, then these letters were YTIOY, of which he mistakenly read Y for A and T for N. A correction must be made. Similarly, one follows a normal epigraphical tradition in restoring a doubtful *epsilon* as a doubtful *beta* in line 2. The doubtful character of the letter is indicated by a dot beneath, for with a chaotic calendar there could conceivably be some restoration other than [ε̣]β̣[δόμης], while there can be no doubt whatsoever about the name of the secretary.

The Year 323/2: Ordinary

This year was taken as intercalary by Pritchett and Neugebauer,[91] and reaffirmed as intercalary by Pritchett in 1963.[92] There is little to be said about Pritchett's new examination of *IG* II².448, suggesting that the second letter of the date in line 3 might be *nu* rather than *kappa*. In my judgment the letter is *kappa*, as I (and others) have described it.[93]

From my own examination I can say that in the space following the *kappa* I could find no stroke on the stone; yet a stroke as of *epsilon*, had *epsilon* been there, should have appeared. I conclude

[89] Recently published in *Hesperia* 32 (1963) 10–11.
[90] Pritchett, *Cal. Pub. Cl. Arch.* IV.4 (1963) 275.
[91] *Calendars* 57–59.
[92] *Cal. Pub. Cl. Arch.* IV.4 (1963) 285–86.
[93] *The Athenian Year* 108 with note 53.

that the letter, whatever it was, did not in its lower half come to left of center. But the vertical hasta published in the majuscule text of *IG* II.5.231*b*, one must suppose, was in the copy furnished by Lolling to Koehler, and may be taken as *iota*, *tau*, *upsilon*, *phi*, or *psi*. Since the word is the numeral ϝεκτηι, the vertical stroke which Lolling saw is part of *tau*, and the word should be read as ϝεκ̣τ[ηι], if one takes into account the reading of earlier editors.[94]

Of no bearing on the reading of ϝεκ̣τ[ει], *qua* reading, but of interest for the problem of restoration is the fact that Pritchett, in order to make an intercalary year with ϝ[νει], must leave an uninscribed space in *IG* II².448 between the date by month and the date by prytany;[95] and in a companion text of the same year he must crowd in an extra letter in the date by month (*IG* II². 367).[96] He thus has too much space in one text and too little in another. He is silent about these anomalies, and silent also about the perfect observance of *stoichêdon* order in my restorations and the evidence they give for the occasional necessary *ad hoc* adjustment of the festival calendar to keep it more or less in concord with the moon. His parting observation is that, even with the reading of a *kappa*, Fornara, in his review of *The Athenian Year*,

> has shown that restorations for an intercalary year are possible—that is, if one permits the same freedom in restoring this document as Meritt does on his page 57.[97]

The cases are hardly parallel; what Fornara has suggested is this:

> In the year 323/2, for instance, IG 2² 448.3–4 may be restored for an intercalary year by reading POSIDEONOS EK[TEI ⟨MET'⟩ EIKADAS, DEUTER]AI KAI EIKOSTEI TES PRYTANEIA[S], rather than for an ordinary year (as Meritt, 108, who reads EK[TEI EPI DEKA etc.). Assuming the intercalation of four days, the equation yielded is Posideon 25 (plus 4) = Prytany V 21 = 177th day. Thus the first four prytanies can have had thirty-nine days each, the rest 38, as Aristotle's rule (by extension for an intercalary year) would suggest.

[94] It must be said that, in Lolling's original minuscule publication in Ἀρχ. Δελτίον 1892, page 58, he printed as read only the initial *epsilon*, and on page 62 not even this. Yet he restored ϝ[κτει ἐπὶ δέκα] and [ϝκτη ἐπὶ δέκα].

[95] Pritchett and Neugebauer, *Calendars* 58. I shall discuss elsewhere how rare an uninscribed space at this point in the preamble of a decree must be. Or else he must write ϝ[νει και νειαι] (*op. cit.* 59) with a rare spelling of νέαι.

[96] Pritchett and Neugebauer (above, note 95) 57.

[97] *CJ* 57 (1962) 370.

Fornara takes a legitimate, and normal, restoration, which involves no calendar difficulty of any kind, and corrupts it in two ways: by adding four days (his own idea) to the festival year and by miswriting the date by month. But even so his Prytany v 21 is wrong, for this date is preempted for the next to the last day of Posideon by *IG* II².368, if indeed the year was intercalary.[98] And the date in the festival calendar, described accurately (*ex hypothesi*) in *IG* II².368 as δευτ[έραι φθίνοντος], is garbled by Fornara into ἕκ[τει ‹μετ'› εἰκάδας]. But Fornara perhaps did not mean the prytany date to be v 21, for he writes it in his discussion as "[DEUTER]AI KAI EIKOSTEI," that is, the 22nd. Yet no day after the 21st can be called ἕκ[τει ‹μετ'› εἰκάδας] whether misspelled or not, for the only day of the month left after Prytany v 21 would have been ἕνη καὶ νέα. The last day of the month naturally follows the next to the last day of the month. The matter is as simple as this, and yet the logic of it has escaped both Fornara and Pritchett. It is not necessary to discuss Fornara's suggestions for *IG* II².368 in an ordinary year, since a perfectly straightforward restoration is possible, and has been made, with no complications. There can be no doubt that the year 323/2 was ordinary in the festival calendar of Athens.

III. Calendar Assumptions

The strict interpretation of the "rule" of Aristotle is only one of the basic assumptions about the Athenian calendar which I hold to be in error. Pritchett has recently attributed to Thucydides an astronomical date for the beginning and ending of the seasons as these are recorded throughout his *History*. This attempt is discredited, and need not, I think, be discussed further.[99] The other main theses which lie at the bottom of his calendar reconstructions are:

1. that the Athenians determined the first of the month by observation and not by calculation or rule of thumb,

[98] See Pritchett and Neugebauer, *Calendars* 57, for the restoration δευτ[έραι φθίνοντος, μιᾶι καὶ εἰκοστῆι τῆ]ς π[ρυτανείας] in *IG* II².368, lines 22–23.

[99] The relevant articles are: Pritchett and van der Waerden, *BCH* 85 (1961) 17–52; B. D. Meritt, *Historia* 11 (1962) 436–46; W. K. Pritchett, *Historia* 13 (1964) 21–36; B. D. Meritt, *Hesperia* 33 (1964) 228–30.

2. that the waning days of the month were counted with δευτέρα φθίνοντος (or δευτέρα μετ' εἰκάδας) omitted in a hollow month, and

3. that the κατὰ θεόν calendar was regulated empirically by observation of the moon.

These assumptions form an interlocking group. Pritchett's second thesis, that the waning days of the month always omitted δευτέρα φθίνοντος (or δευτέρα μετ' εἰκάδας) in a hollow month, has been vigorously challenged,[100] but at least one more objection to it must still be added. This is the inconsistency of claiming that expressions like ἡμέραι λοιποὶ ἦσαν ὀκτώ in *IG* I².324 show that "the pattern of prytanies was established in advance,"[101] and that even in the festival month

> The counting of days in the last decade of a month with the word φθίνοντος (waning) is undoubtedly a backward count, δευτέρα φθίνοντος meaning the second day before the last, τρίτη φθίνοντος the third day before the last, etc.[102]

and then of holding that in every hollow month δευτέρα φθίνοντος was omitted, thus almost half the time making the actual count from the end at Athens one day in error.

In the prytanies the belief is not sound that phrases like ἡμέραι λοιποὶ ἦσαν ὀκτώ show that the pattern of prytanies was established in advance. The length of the individual prytany in which such an expression occurs was undoubtedly established before the backward count at the end of the prytany began, but this proves nothing about the pattern of prytanies within the year. They may have been given a fixed pattern when the year began, as in those cases where Aristotle's rule is found to apply with no variation, or each prytany may have had its length fixed at the time when its name became known, as Mabel Lang shows to have been true in 424/3.[103] The backward count proves that in the prytanies, when backward count was used, the number of days to the end of the prytany was known, and the same should be said of

[100] *Hesperia* 33 (1964) 1–15. See above, pages 208–9.

[101] Pritchett, *Cal. Pub. Cl. Arch.* IV.4 (1963) 357.

[102] Pritchett (above, note 101) 349. Pages 349–54 are a modified recapitulation of Pritchett and Neugebauer, *Calendars* 23–33.

[103] *Hesperia* 33 (1964) 146–67. Cf. also *Hesperia* 34 (1965) 224–47.

backward count in the month. The argument which Pritchett uses for knowing the end of the prytany is just as valid for knowing the end of the month. And this cannot have been the case if no Athenian knew until the end whether δευτέρα φθίνοντος was to be omitted. The evidence, of course, is that it was not omitted.

The realization of this fact conditions our understanding of the calendar κατὰ θεόν, which Pritchett holds to have been an observational calendar. There is no evidence to substantiate this view. Where used, it was a regulatory calendar (granted), and it probably held more closely to the mean lunar months than did the festival calendar κατ' ἄρχοντα (granted). But that any beginning or ending of a month in it was ever found by observation of the moon is pure hypothesis, and to lay this down as the framework which moulded the κατὰ θεόν calendar is unwarranted. I have already expressed my views on the complete absence of evidence of any kind, epigraphical or otherwise, that would support an Athenian observational calendar.[104] Pritchett refers to this in a section of his latest book in which he cites the written evidence, as he claims, known to him.[105] Culling what he can from the sources, he still calls the results "a rather meager harvest," yet none the less urges that they make my challenge "slightly ludicrous." Rather, it seems to me that he has proved the truth of what I had to say. We all know that the Athenians had a lunar calendar, but the lengths of months in the calendar of ordinary civil life, on his own showing, did not in any way depend on regular empirical observation of the lunar crescent. What happened in the calendar κατὰ θεόν has to be postulated on the basis of what evidence we have, and this deserves more study than it has yet received.

The disentangling of these two ways of naming the civil months (κατ' ἄρχοντα and κατὰ θεόν) is a somewhat ticklish business. Pritchett and Neugebauer[106]

> believe that the length of the month was based essentially on the visibility of the crescent and was thus markedly irregular as far as the sequences of 29 and 30 days are concerned.

They have not as yet differentiated the days of the month κατ' ἄρχοντα from the days of the month κατὰ θεόν. On a following

[104] *The Athenian Year* 1–15, 16–17. [105] *Cal. Pub. Cl. Arch.* IV.4 (1963) 326–29.
[106] *Calendars* 12.

page[107] they record their "assumption that the months of the civil calendar were always essentially regulated by the moon." There is still no sign that the assumption (and that is all that it is) applies only to dates given κατὰ θεόν. Later on[108] they

> obtain the following picture of the civil calendar: The dates κατὰ θεόν represent more or less accurately lunar dates, that is to say a first day κατὰ θεόν will be the date of the new crescent (i.e. save for small deviations such as those caused by unfavorable visibility conditions or carelessness). The dates κατ' ἄρχοντα are the result of intercalations of days or even of a month, ordered by the archon for reasons to be discussed presently.

This definition, with the distinction drawn between dates κατ' ἄρχοντα and κατὰ θεόν, follows a table in which known dates κατὰ θεόν are set forth. Where the distinction is epigraphically known, we can all agree that the dates κατ' ἄρχοντα are tampered dates. There are now nineteen examples of dating by prytany and by civil date both κατὰ θεόν and κατ' ἄρχοντα, according to Pritchett's count.[109] They all fall within the range of about 100 years from 195/4 to 95/4 B.C. These are the dates which, in Athens, permit the interpretation of the κατὰ θεόν calendar as regulatory. As Pritchett and Neugebauer state,[110]

> a calendar κατὰ θεόν was still necessary, not only to keep the calendar in some sort of relation with the moon, but also to establish terminal limits for the civil years after the passage of 12 (or 13) real months, regardless of the right of archons or demos to tamper with the calendar within any particular year.

So far the argument is not difficult to follow, even though it remains an assumption that the "terminal limits" of the calendar κατὰ θεόν must always apply to the calendar κατ' ἄρχοντα. One must give more thought to this latter type of year. How was the

[107] *Op. cit.* (above, note 106) 14. [108] *Op. cit.* (above, note 106) 17.

[109] So-called triple dating. Pritchett's table, *Cal. Pub. Cl. Arch.* IV.4 (1963) 337, adds to that of Pritchett and Neugebauer, *Calendars* 15, two examples from the archonship of Theodotus (95/4: *Hesperia* 17 [1948] 25, 26) and one from the archonship of Euergetes (164/3: *Hesperia* 26 [1957] 73), and omits the example of *IG* II².861, which does not have a date κατὰ θεόν though it does show archon's tampering (cf. Meritt, *The Athenian Year* 166). We must also subtract from Pritchett's latest table his No. 14 (*Chronology* 112), for which see now *Hesperia* 32 (1963) 16–17 (15), and add a new text from the early second century (*Hesperia* 33 [1964] 183–84) which may belong in the year 173/2 (see below, page 239 with note 133).

[110] *Calendars* 18.

first day of the month determined in *this* calendar? If the first of the month was determined by observation κατὰ θεόν, I should suppose the assumption obligatory that it was similarly determined κατ' ἄρχοντα at least where the archon had done no tampering. Pritchett has clarified his own position on this question:[111]

> I have repeatedly stated that the first day of the month in the *kata theon*—not the archon's—calendar was a new moon date. But all single dates in prescripts are dates in the *archon's* calendar. The latter calendar was not regulated by the new moon, except at the beginning of the year. It was controlled throughout by the politicians.

How does one know that it was not regulated by the moon? Or why does one postulate regulation by the new moon only on Hecatombaeon 1? If the politicians were so free to disturb the relationship elsewhere, why was Hecatombaeon 1 spared? I hasten to add that I believe Hecatombaeon 1 to be the same day both κατ' ἄρχοντα and κατὰ θεόν, except rarely (as will appear below), and that this day from the fourth century on was normally equated with Prytany I 1. But I hasten also to add that this date of Hecatombaeon 1 could just as well belong to a regulatory calendar (κατὰ θεόν if you will) *which did not depend on observation of the crescent.*

Carrying Pritchett's assumptions further, one gets the impression from the statement of his credo that the festival year (i.e. κατ' ἄρχοντα) is more likely than not always to have been a tampered year. One would like to ask how the first of the month was in fact determined, κατ' ἄρχοντα, in Pritchett's estimation. Since he insists that in the last decade of a hollow month the omitted day was δευτέρα φθίνοντος, ostensibly the omission or retention of this day being determined by whether the new crescent was observable (or narrowly predictable), he evidently believes that the first of the month was determined by observation. But he has also just said that this was *not* a new moon date. Were the authorities always in error in their observations κατ' ἄρχοντα and not in their observations κατὰ θεόν? Were they the same, or different, authorities? Or does observation apply only to the κατὰ θεόν calendar? If so, what happens in the festival calendar

[111] *Cal. Pub. Cl. Arch.* IV.4 (1963) 339.

to the count of days in the last decade of a hollow month? Must one infer that the count was based on observation in the κατὰ θεόν calendar, and transferred only by meaningless analogy to the calendar κατ' ἄρχοντα? Or does one believe that the authorities "observed" the first of the month in both calendars and then paid no attention to what they saw in ending and beginning the κατ' ἄρχοντα month? If they paid no attention, how does Pritchett account for his alleged method of reckoning the last decade?

It is surprising how little is known, and how much assumed, about the κατὰ θεόν calendar. The phrase occurs in Athens only (so far as texts are preserved) between 195/4 and 95/4 B.C., and makes its appearance, or is plausibly restored, in only 13 of these 101 years. Pritchett justifies his use of it as referring to an "observational" calendar because:[112]

1. "the agreement between dates κατὰ θεόν and prytany dates suggests that the dates κατὰ θεόν do not seriously deviate from a lunar calendar," and

2. "the name κατὰ θεόν can be translated 'according to the moon'."

Both reasons are based on assumptions that have no justification other than that they are formally not impossible. They introduce into the Athenian calendar system a lunar regulatory calendar which depends on *observation* of the new crescent each month, whereas there is no evidence that the Athenians in historical times ever fixed the beginning of a month by observation, either κατ' ἄρχοντα or κατὰ θεόν. They corrected some dates in the calendar κατ' ἄρχοντα by intercalation of a day when their observations, belatedly, showed too great a variance from the norm, but this is a different matter.[113] Pritchett's hypothesis adds this hypothetical observational calendar as a regulatory calendar, by which one could "tell how far the festival calendar deviated from the lunar calendar."[114] He elsewhere refers to it as a standard from which κατ' ἄρχοντα dates represent "an arbitrary

[112] *Calendars* 16.

[113] One such example can, I think, be detected in 323/2. Cf. Meritt, *The Athenian Year* 109, note 55.

[114] *Cal. Pub. Cl. Arch.* IV.4 (1963) 348.

modification."[115] He refers to "the κατὰ θεόν or astronomical calendar" in his discussion of these dates in 1957,[116] thus identifying the κατὰ θεόν calendar as an astronomical calendar, a position which he reaffirms in 1963.[117]

Turning aside for a moment from Athens, we find that the phrase κατὰ θεόν had wider application and that it is incompatible with the theory of observation. In the Eretrian text to which reference has been made, there is a provision that the *probouloi* and generals of Chalcis shall send a messenger to the various theatrical performers so that those who wish to sign contracts may present themselves in Chalcis during the month Apaturion, as the Chalcideans reckon time, before the twentieth day κατὰ θεόν.[118] These performers (*technitai*) were active professionally throughout Euboea, the cities named in the inscription being Oreos, Chalcis, Eretria, and Carystus. It would have been virtually impossible for the artists who wished to present themselves in Chalcis to know the 20th day κατὰ θεόν if all their several calendars κατὰ θεόν were based on observation of the new moon in their several cities, and neither the Histiaean from Oreos nor the Carystian from Carystus could have known when the Chalcideans "observed" the new lunar crescent in Chalcis, especially since all such alleged observations were subject to the limitations of weather, visibility conditions, and human carelessness.

The artists needed to know the date on which they could depend accurately for their arrival in Chalcis, not a date κατ' ἄρχοντα, which might have been subject to local political irregularity, and not a date which might vary with the weather or with the frailties

[115] This can be asserted only when both dates are used for the same day and when the dates differ. The relatively few known dates κατὰ θεόν, and their restriction in time, indicate that the arbitrary modifications were also relatively few and that for only a period of about a century did it seem desirable to record them. There are other instances of arbitrary changes in the calendar (both proved and assumed by restoration) which do not call forth the corrective dates κατὰ θεόν. These occur sporadically in all ages, and are evidenced by the insertion of days in the festival calendar or by the omission of them.

[116] *BCH* 81 (1957) 273.

[117] *Cal. Pub. Cl. Arch.* IV.4 (1963) 339.

[118] *IG* XII.9.207, lines 59–61: τοὺς δὲ προβού[λου]ς καὶ στρατηγοὺς τοὺς Χαλκιδέων ἀποστεῖλαί τινα πρὸς τοὺς τεχνίτας, ἐπανγε[λοῦν‹τα›τὰς] ἐργολαβίας κ̣α̣ὶ̣ ὅ̣π̣ως ἂν παρῶσιν οἱ βουλόμενοι ἐργολαβεῖν τοῦ [Ἀπατ]ουριῶνος μηνὸς ὡς Χαλκιδεῖς ἄγουσιν π[ρὸ εἰκάδων τ]ῶν κατὰ θεόν.

of a local observer. They needed, in fact, an astronomical calendar which was always, and internationally, reliable. This calendar is named in the inscription as κατὰ θεόν.

IV. The Calendar of Meton

The astronomical calendar *par excellence* was Meton's 19-year cycle, introduced in Athens in 432 B.C. This could with equal propriety be called κατὰ θεόν, even though it was a schematic calendar in which months did not begin and end by observation but by set rules which permitted no irregularities "due to unfavorable visibility conditions or carelessness." It was, indeed, in the long run apt to be more truly κατὰ θεόν than a calendar which depended on good or bad weather and the chance of human error. Its avowed purpose was to bring the reckoning of days into accord with the movements of the sun and the moon. It was the "Standard Time" of the Athenians, as opposed to tampered time (daylight saving, today; setting back the clock in the halls of Congress; or what have you). Our own Standard Time is a boon which we have not long enjoyed, but for upward of a century now it has become pretty much recognized in every civilized country. In common parlance during the war of 1914–1918 it was known in America as "God's Time" to distinguish it from the tampered daylight-saving, which was "Wilson's Time."[119] It was truly κατὰ θεόν, yet based not on continuous empirical observation but on a predetermined pattern of meridians of longitude which began their count at Greenwich and the Royal Observatory. The system has international recognition. In this it is like Meton's 19-year cycle, which was used not only in Athens but known and respected throughout the world. Diodorus (12.36) describes the cycle as his main item of interest for the year 433/2:[120]

> In Athens Meton, the son of Pausanias, who had won fame for his study of the stars, revealed to the public his nineteen-year cycle, as it is called, the beginning of which he fixed on the thirteenth day of the Athenian month Skirophorion. In this number of years the

[119] The expression "Wilson's Time" is as good a semantic equivalent to time κατ' ἄρχοντα as one could wish; and "God's Time" is a fair translation of κατὰ θεόν.

[120] Translation from the Loeb Classical Library.

> stars accomplish their return to the same place in the heavens and conclude, as it were, the circuit of what may be called a Great Year; consequently it is called by some the Year of Meton. And we find that this man was astonishingly fortunate in this prediction which he published; for the stars complete both their movement and the effects they produce in accordance with his reckoning. Consequently, even down to our own day, the larger number of the Greeks use the nineteen-year cycle and are not cheated of the truth.

What Diodorus says about the stars does not concern us, but there is no doubt about the widespread knowledge and use of Meton's nineteen-year cycle. The famous *parapêgma* at Miletus records the beginning of the first cycle in 432 B.C. and the beginning of the eighteenth cycle in 109 B.C., both dated by Athenian archons. The other evidence for this cycle has been given so frequently that it is unnecessary to quote the sources in full again. W. B. Dinsmoor has the salient facts with necessary references.[121]

Nor does the pattern fixed by Meton for determining full and hollow months concern us at the moment. But it would be useful to know *which years* in the 19-year cycle were intercalary and which ordinary, and possibly instructive to match these against the years in which known κατὰ θεόν dates appear in the inscriptions. In other words, can it be that the epigraphical dates κατὰ θεόν, in the narrow sense of that term, were dates according to the Metonic cycle?

The years of the Metonic cycle have been determined by Fotheringham, and confirmed (within limits) by van der Waerden, as follows:[122]

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

If one takes the years in which the dates κατὰ θεόν are known, the comparison between the years of the Metonic cycle and the years in Athens which show κατὰ θεόν dates is set forth in Table 3 on page 237.

[121] *Archons* 309–11.

[122] J. K. Fotheringham, *Monthly Notices of the Royal Astronomical Society* 84 (1923–1924) 383–87; B. L. van der Waerden, *JHS* 80 (1960) 176–77; cf. W. B. Dinsmoor, *Archons* 320.

Year	Evidence	Type of Year with κατὰ θεόν Dates	Type of Year in the Metonic Cycle	Number of Year in Cycle
Thirteenth Metonic Cycle (204/3–186/5)				
196/5	*Hesperia* 5(1936) 422[123]	O	O	9
191/0	*Hesperia* 5 (1936) 428[124]	O	O	14
190/89	*Chronology* 121[125]	O	O	15
Fourteenth Metonic Cycle (185/4–167/6)				
173/2	*Hesperia* 26 (1957) 33–38[126]	I	I	13
Fifteenth Metonic Cycle (166/5–148/7)				
166/5	*IG* II².946, 947	O	O	1
164/3	*Hesperia* 26 (1957) 72–73	O	O	3
161/0	*Hesperia* 16 (1947) 165	O	O	6
155/4	*IG* II².979; *Hesperia* 10 (1941) 61	O	O	12
148/7	*Hesperia* 34 (1965) 89–90	O	O	19
Sixteenth Metonic Cycle (147/6–129/8)				
145/4	*IG* II².967	O	O	3
Seventeenth Metonic Cycle (128/7–110/09)				
127/6	*Hesperia* 34 (1965) 92–95	I	I	2
122/1	*IG* II².1004, 1006A; *Hesperia* 10 (1941) 61	O	O	7
Eighteenth Metonic Cycle (109/8–91/0)				
95/4	*Hesperia* 17 (1948) 25–26	O	O	15

Table 3. Metonic Cycles

Throughout, so far as there is evidence, the years of the κατὰ θεόν calendar, whether ordinary or intercalary, are the same as in the Metonic cycle. We have already noted that indirect confirmation of Fotheringham's arrangement of the years in the cycle is found in the regular progression of the festival calendar for the period of the sixth Metonic cycle from 337/6 to 319/8.[127] So far as is known, the festival calendar was in accord with Meton's

[123] See below, page 238.
[124] See below, pages 238–39.
[125] See below, page 240, Table 5.
[126] See below, page 239 with note 133.
[127] Meritt, *The Athenian Year* 132–34 with note 83.

scheme also during the fifth cycle, where there is evidence for the last ten years from 347/6 to 338/7.[128] On the other hand, the seventh Metonic cycle (318/7–300/299) is normal in the festival calendar except for the transposition of O I to I O in the years 307/6 and 306/5, under circumstances which can be explained as the result of an unusually hard winter.[129] The eighth cycle has only the transposition of I O to O I in the years 298/7 and 297/6, and the ninth cycle in the festival calendar has more points of agreement than of disagreement with the Metonic system. From this point the difficulties of tampering and irregularity increase, but for upward of a hundred years the Athenian festival calendar had followed the Metonic cycles much more closely than we had been led to believe.

In the year 196/5 the hitherto accepted restoration of the texts has indicated an intercalary year. The evidence is in *Hesperia* 5 (1936) 422 (No. 15, lines 3–4), where the date *Ἐλαφηβολιῶνος τρίτει ἐπὶ δέκα κατὰ θεὸν δὲ ὀγδόει καὶ εἰκοστεῖ τῆς πρυτανείας* has been interpreted as *Ἐλαφηβολιῶνος τρίτει ἐπὶ δέκα (κατ' ἄρχοντα) κατὰ θεὸν δὲ ὀγδόει ‹ἐπὶ δέκα, ὀγδόει›* καὶ *εἰκοστεῖ τῆς πρυτανείας*. But the fact is that this text offers no *κατὰ θεόν* calendar equation. If the omitted date was *τρίτει μετ' εἰκάδας*, then Elaphebolion 28 equaled Prytany IX 28, and the year was ordinary. The sequence of intercalations in Meritt's table[130] should show 197/6 as intercalary (I) and 196/5 as ordinary (O). Furthermore, the decree of *Hesperia* 10 (1941) 275–77 (No. 73) must now also be restored as for an ordinary year, reading the date by prytany in line 3 as *τρίτει καὶ εἰκοστεῖ τῆς πρυτανείας*. The irregular intercalations of Elaphebolion had been corrected before the 23rd of Thargelion, and there was no need to quote here a corrective date *κατὰ θεόν*.

The attribution to 191/0 of the text with its secretary from Prasiae requires, according to the Metonic cycle, that the year be ordinary, and necessitates the realignment of a number of archons in this and in the following cycle. Hippias (formerly 181/0) belongs in 193/2, and Phanarchides with his successor Diodotus (formerly 193/2 and 192/1) belong in 181/0 and 180/79. The

[128] See D. M. Lewis, *BSA* 50 (1955) 25–26, for the years from 347/6 to 341/0, and complete his table by adding the normal final three years to read: I O O [I] O O I [O I O].

[129] Cf. *Hesperia* 33 (1964) 15.

[130] *The Athenian Year* 235.

year 182/1 must be taken as intercalary, as must also the year 179/8.[131] The year 177/6, on the other hand, becomes ordinary, and the sequence of years in the fourteenth Metonic cycle is reorganized as is shown in Table 4.[132]

Type	Year	Archon	Deme of Secretary
O	185/4	Eupolemus	IX Hamaxanteia
I*	184/3		X Rhamnous
O	183/2	Hermogenes	XI Pallene
I	182/1	Timesianax	XII Probalinthus
O*	181/0	Phanarchides	I Lamptrae
O*	180/79	Diodotus after Phanarchides	II Halae (?)
I	179/8	Menedemus	III Angele
O*	178/7	Philon	IV Potamus
O	177/6	[- - -i]ppus	V Oenoe
O	176/5	Hippacus	VI Iphistiadae
I*	175/4	Sonicus	VII Perithoedae
O	174/3	Alexandrus	VIII Pithus
I*	173/2	Alexis	9 [- - - e]us[133]
O	172/1	Sosigenes	10
I*	171/0	Antigenes	XI Alopece
I*	170/69	Aphrodisius	12
O*	169/8	Eunicus	I Cephisia
O	168/7	Xenocles	II Teithras
O	167/6	Nicosthenes	3 [- - -]us

Table 4. Fourteenth Metonic Cycle

The next Metonic cycle (the fifteenth) began with the first two years I O in the festival calendar equated with the years O I in the Metonic calendar.[134]

The years of the thirteenth cycle in the festival calendar of Athens are also to be rearranged. See Table 5 on page 240.[135]

[131] Menedemus archon: cf. *Hesperia* 34 (1965) 89.

[132] Cf. Meritt, *The Athenian Year* 236.

[133] Here perhaps belongs the text published in *Hesperia* 33 (1964) 183–84 (No. 34). The name of the archon is of correct length for the restoration in line 1; and calendar irregularities, with κατὰ θεόν restored, are already attested for this year in *Hesperia* 26 (1957) 39 (cf. Meritt, *The Athenian Year* 159).

[134] See below, pages 242–47.

[135] Cf. Meritt, *The Athenian Year* 235–36.

Type	Year	Archon	Deme of Secretary
I*	204/3	Apollodorus	IX Oe
O*	203/2	Proxenides	X Aexone
O	202/1	Diodotus (?)	———
O	201/0	Isocrates	V Aegilia
I	200/199	Nicophon	6
O	199/8	[. . .i]ppus	VII Cothocidae (?)
O	198/7	Dionysius	8
I*	197/6	Dionysius after [Dionysius]	9
O	196/5	Charicles	X Rhamnous
I	195/4	[– – –$^{9-12}$– – –]	XI Semachidae
O	194/3		12
I*	193/2	Hippias	I Lamptrae[136]
O	192/1		2
O	191/0		III Prasiae[137]
O*	190/89	Demetrius	IV Deiradiotae
I*	189/8	Euthycritus	V Cydantidae
O*	188/7	Symmachus	VI Thoricus
O*	187/6	Theoxenus	VII Perithoedae
I*	186/5	Zopyrus	VIII Aexone

Table 5. Thirteenth Metonic Cycle

The texts of the year 127/6 are instructive, for the first equation of the year names a date by month (Boedromion 10) which does not exist in the Metonic calendar. Beginning the cycle on Scirophorion 13 in 432 B.C., and omitting every 64th day, one drops in the first year from the Metonic calendar the days Metageitnion 16, Pyanopsion 20, Posideon 24, Anthesterion 28, and Thargelion 2. In the second year of the cycle (and the year 127/6 was the second year of the seventeenth cycle), the days dropped were Hecatombaeon 6 and Boedromion 10. According to the calendar κατὰ θεόν, therefore, Hecatombaeon was hollow, Metageitnion full, and Boedromion hollow.[138] Hence the date Boedromion ἕνη καὶ νέα was Boedromion 29 or the 88th day of the year, equaling the 24th day of the third prytany in an intercalary year. The fact that Boedromion 10 did not exist in the Metonic year shows that the first equation is solely with the festival calen-

[136] Cf. Meritt, *The Athenian Year* 195–200; above, page 238.
[137] Cf. *Hesperia* 34 (1965) 89.
[138] Cf. *Hesperia* 34 (1965) 94–95.

dar. Metonic dates were called upon only when at some particular point the festival calendar needed a corrective. This was usually the service that the Metonic date rendered: a quick corrective of a minor (or temporary) vagary. When the conciliar year did not follow the consequences of an unexpected intercalation,[139] the Metonic divergence was of longer duration.

There has been a general belief that the Athenians, in determining the succession of ordinary and intercalary years in their festival calendar, disregarded completely the Metonic cycle by which astronomers reckoned time. The latest authoritative expression of skepticism is by van der Waerden:[140]

> It will be shown that the astronomical calendars differed from the Athenian festival calendar in many respects, and that there is no reason to assume that they ever were used at Athens.

Yet we have found a measure of similarity between the festival calendar and the Metonic cycles, and we have found in the Metonic calendar the regulatory control which the Athenians invoked when necessary. Van der Waerden also shows that the astronomical calendars had "mean lunar months"[141] which he describes as "alternating between 29 and 30 days."[142] Since this was the scheme of months used by the Athenians in their festival calendar, there was this additional similarity in principle between the festival and the astronomical calendars.

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 in civic usage (*πρὸς τὴν πολιτικὴν ἀγωγήν*) 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 days and of 29 days. Since he also says that all the Greeks (*ἅπαντες οἱ Ἕλληνες*) managed their days and months in agreement with the moon (8.7), I think we can take this to be true for Athens: that there were alternating months there as well as elsewhere, a conclusion with which the overwhelming evidence of the inscriptions, indeed, agrees.

There was, then, no hit or miss determining of the first day of the month by observation of the lunar crescent, either in Meton's

[139] As in 166/5; see below, pages 242–43.
[140] *JHS* 80 (1960) 168.
[141] *Op. cit.* (above, note 140) 171–72.
[142] *Op. cit.* (above, note 140) 169.

calendar or in the festival calendar of the city. Meton's calendar we know was laid out on a plan by which all months were first assumed to be full, of thirty days, and then one day was omitted after every 63. This had the effect of giving alternating months with an occasional double full; but astronomers knew the scheme, and it was universally intelligible. An astronomer in Babylon could write to an astronomer in Athens, or in Alexandria, and they could always be sure of their day.

V. The Year of Achaeus: 166/5

When I wrote *The Athenian Year*, I was under the impression that Pritchett and Neugebauer had solved the problem of Attic dates κατὰ θεόν.[143] But the Athenians had no regulatory observational calendar, and the dates which we know as κατὰ θεόν must be interpreted as Metonic dates. A confirmation of this comes from the divergence of a month between the calendar κατ' ἄρχοντα and the calendar κατὰ θεόν in the year 166/5 B.C. This is the first year of the fifteenth Metonic cycle, when the Metonic year must have been ordinary, of twelve months. The κατ' ἄρχοντα year probably started out to be ordinary too, but sometime before Anthesterion an extra month made it in fact intercalary. The conciliar year followed the Metonic dates, for which the evidence lies in the triple equations of *IG* II².946 and 947:[144]

Ἀνθεστηριῶνος δευτέρα[ι μετ' εἰκάδας, κατὰ θεὸν δὲ Ἐλα]φηβολιῶνος τετράδι μετ' εἰκάδα[ς, ἑβδόμηι καὶ εἰκοστῆι τῆς πρυτανεί]ας

and

Μουνιχιῶνος [δ]ωδ[εκ]άτ[ηι, κατὰ θεὸν δὲ] Θαργηλιῶνος [δωδ]ε[κάτηι], δωδεκάτη[ι τῆ]ς πρυ[τανείας]

It follows that the year of the Council in 166/5 ended one full month sooner than did the year of the archon, and thirteen festival months were thus left to the conciliar year of Pelops (165/4). We do not know how the extra days were distributed, but the only calendar equation from the year of Pelops (*IG* II².949, 950) gives Scirophorion 16 as equated with Prytany XII 16. Unless there is some mistake in these figures, the extra days were not spread out evenly over the twelve prytanies. They may have been absorbed

[143] *The Athenian Year* v.

[144] As read by Pritchett and Neugebauer, *Calendars* 85.

by the first six prytanies of the year, as the extra month in 307/6 was absorbed by the last six prytanies of that year. Yet this seems an unlikely parallel, for in 307/6 there was no other choice. The prytanies of 165/4 should have had 32 days each, making the intercalary year end at the same time as the ordinary festival year. The fifteenth Metonic cycle, then, will have begun with an intercalary year followed by an ordinary year in the festival calendar, equated with an ordinary year followed by an intercalary year in the conciliar calendar.

I believe that this was so, and that the date ἕκτει ἐπὶ δέκα in Scirophorion should have been omitted in *IG* II².949, just as it was in fact omitted from the stone in *IG* II².950.[145] In other words, there is a conflation from the prytany date in the one inscription rather than an accidental omission of a date by month in the other; and we do not in fact have any true calendar equation. The year of Pelops was intercalary in the Metonic cycle, being the second year in the cycle; and the dislocation in the naming of months which is apparent after Anthesterion in 166/5 was doubtless continued until Gamelion of 165/4 when the months κατ' ἄρχοντα and the months κατὰ θεόν again began to coincide.

If the years κατ' ἄρχοντα and the years κατὰ θεόν began simultaneously with the beginning of the fifteenth Metonic cycle,[146] then the year of Nicosthenes (167/6) must have been ordinary; and its one known calendar equation should be restored to show a one-to-one correspondence between the months of the festival calendar and the twelve prytanies of the conciliar year:[147]

a. 167/6 *a.* Non-*Στοιχ. ca.* 48
ἐπὶ Νικοσθένου ἄρχοντος ἐπὶ τῆς Οἰνεῖδος ἕκτης πρυτανεί
[ας ἧι – – – – – ca. 23 – – – – –]ος ἐγραμμάτευεν· δήμου
[ψηφίσματα· Ποσιδεῶνος ἐνάτει μετ' εἰκάδας], δευτέραι καὶ εἰ
[κοστεῖ τῆς πρυτανείας· ἐκκλησία ἐν τῶι θεάτρωι·] τῶν – – κτλ –

Except for the unusually conscientious attention to detail evident in *IG* II².946, there would have been no evidence that

[145] The alternative may be that the extra days were absorbed in the earlier prytanies of the year. It is also possible that the year 167/6 was intercalary and that its last festival month extended over into the beginning of the next Metonic cycle. If this was so, there is no need to assume an error in the text of *IG* II².949.

[146] But cf. above, note 145.

[147] The text is that suggested by Pritchett and Neugebauer, *Calendars* 85, replacing those of Dow, *Hesperia*, Suppl. 1, page 135 (No. 72) and of Meritt, *The Athenian Year* 183.

Anthesterion in 166/5 was a month behind the κατὰ θεόν calendar, for the text was originally written without the equivalent κατὰ θεόν date and then corrected on the stone to include it. The photograph in *Hesperia* 3 (1934) 24 shows the erasure and the correction. Lines 3–6 were probably written originally as follows:[148]

ἐν· Ἀνθεστηριῶνος δευτέρα[ι μετ' εἰκάδας ἑβδόμει καὶ εἰ]
(κοστεῖ τῆς πρυτανείας· ἐκκλησία ἐμ Πειραιεῖ· τῶν προ)
(έδρων ἐπεψήφιζεν – – – ca. 12 – – – Πτελεάσιος καὶ)
(συμπρόεδροι· ν ἔδοξεν τῆι βουλῆι καὶ τῶι δήμωι. ν)

Since another text of the year of Achaeus[149] makes no mention of a date κατὰ θεόν, the date given is probably the κατ' ἄρχοντα date, which will have been quite regular and in entire agreement with the κατὰ θεόν date when both calendars were marching *pari passu* before the κατ' ἄρχοντα intercalation which followed Maemacterion and preceded Anthesterion.[150] The text of still another decree of the year of Achaeus (*IG* II².948) also belongs to the early part of the year.[151]

One notable calendar phenomenon should here be emphasized: that the conciliar year 165/4 began one month sooner than the festival year 165/4. It had to absorb the final festival month Scirophorion of the year 166/5. Hence Achaeus remained as archon through most (not all) of the first prytany of 165/4, while the remainder of that year belonged to Pelops. This overlapping of festival and conciliar years was by no means new in Athenian calendar history, for such maladjustment was normal in the fifth century when the festival and conciliar years were always of different lengths.

The Athenian *Dêmos* could have increased the number of remaining days in the several prytanies of 166/5 after the intercalation if they had chosen to do so. This was their solution of a similar problem in 307/6. In 296/5 the prytanies were shortened to only eight or nine days each when all twelve had to be accommodated between the Dionysiac festival and the end of the year.[152] Pritchett has offered suggestions for the year 166/5.[153] He

[148] This is a modification of my original draft in *Hesperia* 3 (1934) 25.

[149] First published in *Hesperia* 3 (1934) 21–27 (No. 19).

[150] See the text in *Hesperia* 3 (1934) 21 (No. 19) with notes by Sterling Dow in *Hesperia*, Suppl. 1, pages 135–36 (No. 73).

[151] Cf. *Hesperia* 3 (1934) 26.

[152] See Meritt, *The Athenian Year* 178–79.

[153] *Cal. Pub. Cl. Arch.* IV.4 (1963) 332–35.

eliminates the extra days of the intercalary month introduced before Anthesterion in a series of stages in the latter part of the year after Munichion. He even shows schematically, in a bizarre set of figures, how the month when first introduced may have come in with its extra days more or less evenly distributed over the first eight months, making them all irregular, or perhaps with the extra days added only to the last three of the eight months, or perhaps with the added days all given to the eighth month in which our preserved calendar equation in Anthesterion occurs.[154] He then generalizes on the basis of his reconstruction, and attacks my belief that tampered dates in the festival calendar should normally be compensated as soon as reasonably possible. He finds, for example, that the "correction" at the end of the year of Achaeus would have upset all three of the final months of the year, assuming "that the archon Achaios was free to subtract days from all three months, Mounichion, Thargelion, and Skirophorion."[155] With a proper interpretation of the calendar *κατὰ θεόν* the archon had no need to subtract any days whatsoever from any month at the end of the year.[156]

Pritchett considers the year of Achaeus a test case;[157] so do I. But it upsets his theory of the relationship between the festival year and the *κατὰ θεόν* calendar, and eliminates his "proof" of calendar abnormalities in Scirophorion. I have said that "so far as we have evidence" there is no example of tampering with the festival calendar in the month of Scirophorion.[158] This is true, so far as I know. The evidence for tampering in the Athenian festival calendar is fairly abundant, and has been presented by Pritchett in a convenient table (though without references).[159] It

[154] Pritchett (above, note 153) 333–34. For the first of these suggested arrangements he must have forgotten *IG* II².948 and *Hesperia* 3 (1934) 21–27 (No. 19).

[155] Pritchett (above, note 153) 338.

[156] Before finding that the calendar *κατὰ θεόν* was in fact the Metonic cycle, I too sought to subtract a month at the end of the year (*The Athenian Year* 175–76).

[157] Pritchett, *Cal. Pub. Cl. Arch.* IV.4 (1963) 334.

[158] *The Athenian Year* 208.

[159] Pritchett, *Cal. Pub. Cl. Arch.* IV.4 (1963) 338, has missed the example of tampering from late Hecatombaeon in *IG* II².861, as now reedited in *The Athenian Year* 166. When I wrote *The Athenian Year*, I was under the impression that the regulatory calendar was always the calendar *κατὰ θεόν*. There is no reference in *IG* II².861 to a calendar *κατὰ θεόν*; the same is true of many of the items in Pritchett's table. I can make no tabulation of my own agree with his count, but this is of no great consequence. We agree on the absence of irregularity in Scirophorion.

shows Scirophorion definitely clear, and I do not see what better evidence there could be when examples accumulate for all the other months of the year and Scirophorion is left untouched.

It should be noted here that dislocations of a month are in quite a different category of tampering from dislocations of days. The former do not disturb the relationship between the days of the festival month and of the lunar month, and there is no need to correct them before normal intercalation, in one calendar or the other, effects a reconciliation. Dislocations of days, I again assert, must look for their compensation within a reasonable time, preferably short rather than long.

In *The Athenian Year*,[160] for example, I urged that three days intercalated into the month Thargelion before the 25th were compensated before the end of the month. Surely this is not unreasonable. But Pritchett takes this out of context, refers my suggestion for the year 325/4 to the year 166/5, elevates it to the stature of a general rule, and then says that I ought to have known that the rule will not work because 28 days intercalated into the month Anthesterion cannot be suppressed before the end of that month when that month had only one more day to run. His verdict is:[161] "There is an arithmetical anomaly—one day to go, but 28 days to cancel out." And again, "In view of this evidence we cannot assume that 'compensation was managed before the end of the month'."[162]

Pritchett comes back to the year of Achaeus later on with a page of argument[163] to which I must take exception. I have no wish to "make Elaphebolion 1 *kata theon* equal Elaphebolion 1 *kat' archonta*" in the year 166/5, as Pritchett claims that I do. Nor do I wish to effect here a "correction within two weeks," as again Pritchett claims that I do. His observation that "we have no reason to posit an Athenian law which required the archon to erase an irregularity immediately" is harmless, but only that. It is a matter of common sense that even without a "law" the archon

[160] Meritt, *The Athenian Year* 104.

[161] Pritchett, *Cal. Pub. Cl. Arch.* IV.4 (1963) 335.

[162] Pritchett (above, note 161) 364 intimates that, when I have to assume compensation in one month for tampered intercalations in a preceding month, I do so "reluctantly." There is no room here for motives of "reluctance" or "willingness." One should simply follow the evidence—nothing more.

[163] Pritchett (above, note 161) 365.

will have at his early pleasure brought even the festival calendar back into harmony with the moon when the occasion for the dislocation was past and done.

VI. The Year of Antigenes: 171/0

The date recorded in the first calendar equation of a text published in *Hesperia* 3 (1934) 14 (No. 17) is *Πυανοψιῶνος ἐν[δ]εκάτ̣[ει], ἑβδόμει καὶ δεκάτει τῆς πρυτανείας*. This is Pritchett's reading.[164] I have again examined the stone (in May of 1964), and I agree that this is correct. I would, indeed, read the *tau* in its entirety, followed by a partially preserved *epsilon*. After this numeral there is room for one more letter (not two) where the stone is uninscribed. Thus my present reading, with acknowledgments to Pritchett for having cleaned the stone and published a clear latex squeeze, is as follows:

Πυανοψιῶνος ἐν[δ]εκάτ̣ε̣[ι] ⏑ – | *ἑβδόμει καὶ δεκάτει τῆς πρυτανείας.*

This gives the calendar equation:

Pyanopsion 11 = Prytany IV 17,

which must be studied together with the other known equation of this year from the same inscription:

Elaphebolion 9 = Prytany [IX] [1]8.

From these two equations Pritchett draws remarkable conclusions:

1. On his "more likely" assumption that the first equation shows an intercalation by the archon of only six extra days into the festival calendar if the year was ordinary, whereas there would have been thirteen extra days in an intercalary year, he thinks that the year was probably ordinary.
2. He implies that the archon Antigenes is wrongly dated.

Since Pritchett allows so much freedom of intercalation to the archon elsewhere,[165] one is surprised to find that he lays weight here upon the difference between 6 and 13. This is especially

[164] Pritchett (above, note 161) 277–79, with an illustration on Plate 21 *b*. Pritchett has recently read all letters of the date from the stone (*BCH* 88 [1964] 456, note 1).

[165] He suggests a possible retardation by as much as 35 days in 328/7 (*Cal. Pub. Cl. Arch.* IV.4 [1963] 281).

noticeable in view of the perfect equation for an intercalary year obtained from the second text, where the date by month (the months alternately being of 29 and 30 days) and the date by prytany (the prytanies all equally of 32 days) both indicate the 274th day of the year. The definite evidence for an intercalary year gives way, in Pritchett's judgment, to evidence which is quite ambiguous in the first equation. Recognizing Margaret Thompson's thesis for both 171/0 and 170/69 as intercalary, and stressing the importance of Antigenes as a key archon in the second century, Pritchett calls his interpretation "evidence" that "Meritt's archon table may be wrong and, indeed, that his entire tribal cycle for this part of the second century may be inaccurately dated."

The credit for the secretary cycle as set forth in *The Athenian Year*[166] does not belong entirely to me, for it is essentially the same cycle as that which Pritchett and I published together in *Chronology*.[167] The reader is entitled to some justification for his change of mind now, and to an explanation of how difficulties inherent in his suggested change are to be overcome. The cycle calls for the archon Eunicus, for example, in 169/8.[168] This is the year during which, in the month Scirophorion, Calliphanes of Phyle hastened back from the battle of Pydna to tell the Athenians of the Roman victory.[169] Since the battle of Pydna was fought in 168 shortly before the end of Eunicus' year, Eunicus is fixed to 169/8 not only by the cycle of the secretaries at Athens, which also fixes Antigenes, but also by the known facts of Roman history and the career of Aemilius Paulus. If Pritchett wishes to rewrite this chapter of Roman history with different dates, he should explain how he plans to do so. I shall come to the "other evidence" to which Pritchett refers[170] purporting to show that the cycles are incorrect, after noting the fallacy of Pritchett's first conclusion that 171/0 was an ordinary year.

The fallacy is this: that he takes a normal equation (Elaph. 9 = Pryt. IX 18) for an intercalary year, shows that it will not be normal for an ordinary year, and then argues that irregularities in Pyanopsion (demonstrable) and Elaphebolion (which have to be

[166] Meritt, *The Athenian Year* 236–38.

[167] Pritchett and Meritt, *Chronology* xxvii–xxxv.

[168] Pritchett and Meritt (above, note 167) xxviii; Meritt, *The Athenian Year* 236.

[169] Pertinent lines of the Athenian decree in his honor may be found in *Hesperia* 5 (1936) 429.

[170] *Cal. Pub. Cl. Arch.* IV.4 (1963) 279.

assumed) prove that all the intervening months of Maemacterion, Posideon, Gamelion, and Anthesterion were abnormal too. "The archon presumably did not compensate immediately for maladjustments introduced into the festival calendar." I had urged in *The Athenian Year*[171] that maladjustments introduced to meet a specific crisis were ironed out as soon as reasonably convenient.

In his sympathetic review of *Calendars of Athens* Jacques Pouilloux noted the failure of Pritchett and Neugebauer to distinguish between the irregular intercalations of a few days and the intercalations of whole months, which (when they occurred) were in fact less an irregularity with respect to the moon than the days:[172]

> Mais l'exposé eût été plus net si P.–N. avaient explicitement distingué les jours et certains mois ἐμβόλιμοι des années. Celles-ci visent à maintenir l'accord des mois et des saisons hors de toute considération particulière. Les examples révèlent que les autres au contraire sont dus à des événements politiques ou à des phénomènes accidentels.

He goes on to question Pritchett's thinking through into the consequences of his theory of dating κατ' ἄρχοντα and κατὰ θεόν:

> on peut se demander si les conséquences de cette hypothese ont été vues complètement.

He does not believe the divergencies nearly so common as Pritchett supposes between the dates κατ' ἄρχοντα and κατὰ θεόν and suggests that, when an irregularity was introduced, it was normally corrected as soon as possible:

> mais puisque l'on devait retrancher les jours intercalaires que l'on avait ajoutés, les divergences entre les deux calendriers étaient-elles très fréquentes? Au contraire la suppression ne se faisait-elle pas assez vite pour éviter aux Athéniens de se perdre dans la confusion? Ou aurait eu ainsi le plus souvent concordance entre les deux; il serait vain alors de chercher si la date que l'on indique correspond à un compte ou à l'autre.

There is here much sound criticism from which Pritchett has not profited. He still regards the equations of the year of Achaeus as an example of progressive and continuing irregularity; he calls them "an example of progressive increase in dislocation."[173] They are, of course, nothing of the kind. The difference in date κατ'

[171] *The Athenian Year* 152. [172] *BCH* 73 (1949) 497.
[173] Pritchett, *Cal. Pub. Cl. Arch.* IV.4 (1963) 387.

ἄρχοντα for Anthesterion and Munichion and κατὰ θεόν for Elaphebolion and Thargelion[174] is one of those accidents which in no way affect the validity of the calendars (either one) as lunar calendars: both were in agreement with the moon, and the reasons for the different namings of the months are to be sought in the particular circumstances of an irregularly intercalated month earlier in the year. The only *lunar* discrepancy is the suppression of two days in the calendar κατ' ἄρχοντα in Anthesterion which, in all probability, in Pouilloux's words, must have been rectified "assez vite pour éviter aux Athéniens de se perdre dans la confusion." Without the suppression the *normal* date in *IG* II².946, lines 3–4, would have been *Ἀνθεστηριῶνος τετράδι μετ' εἰκάδας, κατὰ θεὸν δὲ Ἐλαφηβολιῶνος τετράδι μετ' εἰκάδας*. Both calendars would have been in accord with the moon, just as they were two months later.

I was able to prove from the records of the year 271/0 that Pritchett's theory of making all adjustments at the end of Scirophorion is not valid.[175] But instead of acknowledging this, Pritchett returns to the idea of protracted maladjustment, and supports it with an equation which shows no maladjustment. He claims[176]

> the archonship of Antigenes, then, provides us with additional evidence that one of the restrictive rules which Meritt applied to the festival calendar is without foundation; or we must admit the second alternative, which would give us an even more disordered festival calendar at the time of the first equation.

It may be correct to urge that the second alternative shows maladjustment in Pyanopsion; it is not correct to cite the equation in Elaphebolion either for maladjustment in itself or for the protraction of maladjustment elsewhere. This must be kept clearly in mind, for Pritchett again[177] returns to the numismatic and epigraphic evidence for the archonship of Antigenes in 171/0, in an attempt to justify his original position about the calendar character of the year.[178]

[174] Cf. Pritchett (above, note 173) 365. [175] *The Athenian Year* 194,195.
[176] *Cal. Pub. Cl. Arch.* IV.4 (1963) 279. [177] Pritchett (above, note 176) 386–87.
[178] One can only suppose that he posits a break in the secretary cycle between 174 and 171 in order to get Antigenes out of 171/0, and then another break after 171 and before 169 in order to get the cycle back into operation again: a strange double anomaly to justify the false conception of 171/0 as an ordinary year.

The statement is further made by Pritchett[179] that "Meritt's 1961 archon list will not do for the second century, and this conclusion is based on astronomical and historical data as well as epigraphical." Pritchett refers ahead to a discussion which is given later.[180] Some of this later argument is devoted to papyrological readings which concern the third century, rather than the second, but for the second century he argues from three main points:

1. that the year of Antigenes was ordinary, not intercalary;
2. that the archon Polyclitus should be dated in 107/6 rather than in 110/09;
3. that the year of Heraclitus (137/6) was ordinary, not intercalary.

All three of these contentions are false:

1. Having two equations for the calendar character of the year of Antigenes, one showing a calendar irregularity and the other showing none, Pritchett interprets them, assuming, as he says, "the solution which presupposed the smallest amount of irregularity," so that they are *both* irregular. The commonsense solution of both equations, of course, is to note the irregularity of the first and then to accept the normal evidence of the second that the year of Antigenes (171/0) was intercalary.[181] The irregularity is confined entirely to the month of Pyanopsion and to the evidence of the first equation.

2. In challenging the calendar of the second century as I have reconstructed it in my *Athenian Year*, Pritchett also quotes van der Waerden (whom he apparently believes) to the effect that the archon Polyclitus belongs in 107/6 rather than in 110/09. One can only assume that this means moving the two archons Aristarchus and Agathocles from the years 107/6–106/5 where they are tied by the secretary cycle and by sound historical context,[182] to say nothing of the fact that within all reason the Milesian *parapêgma*, which names Polyclitus, should end with the end of the

[179] *Cal. Pub. Cl. Arch.* IV.4 (1963) 352.
[180] Pritchett (above, note 179) Chapter VIII (385–89).
[181] *Hesperia* 15 (1946) 198–201 (No. 40, lines 45–46).
[182] See the references in Dinsmoor's *Archons*.

seventeenth Metonic cycle (110/09), just as it began the first cycle with Apseudes 323 years earlier in 433/2.[183]

This new dating of Polyclitus in 107/6, which Pritchett now champions,[184] is due to a careless summation (or neglect) of the evidence by B. L. van der Waerden.[185] The evidence is overwhelming that the correct date is 110/09, and has always been taken as such. Of the historical evidence all that van der Waerden says is this: "From historical sources we know that Polykleitos held office in some year at the end of the second century." We do, in fact, know a great deal more than this.

Jason was archon in 125/4, and is there securely dated by Phlegon of Tralles, who assigns him to the year when M. Plautius Hypsaeus and M. Fulvius Flaccus were consuls at Rome (A.U.C. 629).[186] The great archon list *IG* II².1713 has his immediate predecessors and successors, so that the sequence of archons, all accurately dated, is determined for the years from 129/8 to 123/2:

129/8 *Λυκίσ[κ]ος*
128/7 *Διονύσι[ος]*
127/6 *Θεοδωρί[δης]*
126/5 *Διότιμος*
125/4 *Ἰάσων*
124/3 *Νικίας καὶ Ἰσιγένης*
123/2 *[Δη]μήτρ[ι]ος*

From the lives of the philosophers in the Herculaneum papyri we learn that Polyclitus was 19 years after Lyciscus, i.e. in 110/09.[187] I see no reason to argue the case further, but it should be noted that the secretary cycle for the years in question is unbroken, showing no irregularity of any kind, and that by it the archonship of Jason (second here of that name), who follows immediately after Polyclitus,[188] falls in the year 109/8.

The Milesian *parapêgma* does in fact mark an epochal date in 110/09 in the sequence of Metonic cycles; it gives here the end of

[183] The reader is referred to the admirable astronomical treatise by J. K. Fotheringham, *Monthly Notices of the Royal Astronomical Society* 84 (1923–1924) 383–92.

[184] *Cal. Pub. Cl. Arch.* IV.4 (1963) 387–88.

[185] *JHS* 80 (1960) 179–80. [186] Dinsmoor, *Archons* 225.

[187] S. Mekler, *Academicorum Philosophorum Index Herculanensis* (1902) 89 (cf. F. Jacoby, *Apollodors Chronik* 388): *τὴν δὲ Κα[ρ]ν[εά]δου δ[ιεδέ]ξατ[ο] ἐπὶ Λυκί[σ]κου π[αρὰ Κ]ράτητος το[ῦ] Τα[ρσόθ]εν, ἡγησάμεν[ος δ' ἐν]νέα κα[ὶ] δέκ' ἔτη κατέ[στρε]ψ[εν] ἐπ[ὶ Πολυ]κλείτου.* The subject is the philosopher Cleitomachus.

[188] Cf. *IG* II².1014: *ἐπὶ Ἰάσονος ἄρχοντος τοῦ μετὰ Πολύκλει[τον].*

the seventeenth cycle, just as with the archonship of Apseudes in 433/2 it gave the beginning of the first. In this matter of epochal dates it should be remembered that Aristarchus recorded the summer solstice in 280 B.C. at the end of the eighth Metonic cycle,[189] and Dinsmoor undoubtedly was right in assuming that astronomers were in the habit of checking the calendar at the end of each nineteen-year cycle.[190] But the end of the seventeenth cycle came in 110/09, not in 107/6.

3. The year of Heraclitus (137/6) raises other problems. Its definition as intercalary might be made even with backward count in the festival calendar, if one rejects the possibility of forward count. This would entail an assumption that the festival calendar, apparently, had only 32 or 33 days yet to run at the time of the one known equation:[191]

Prytany [XI] 27 = [Tharge]lion τρίτη μ[ϵ]τ' ϵἰκάδας

and was thus four or five days in advance of the prytany calendar, which still had left 37 days. Dislocation of the festival calendar is known frequently to have involved retardation, but the chance of advancement is also possible.[192] The archonship of Heraclitus is fixed in 137/6 by the cycle of secretaries. We now know from Margaret Thompson's studies of the new style coinage that this year was intercalary in the festival calendar. Pritchett's suggestion[193] that the archonship of Heraclitus belongs to an ordinary year can only mean that he believes him wrongly dated in 137/6. He has no suggestion for what a proper date may be, and leaves the problem with no attempt at solution.

I have not been alone in believing that a calendar count with μϵτ' ϵἰκάδας forward is possible,[194] and I was still restrained in 1961 by my belief that this was so[195] from making certain restorations which would have implied first a suppression of days and then rectification of the calendar by subsequent corresponding additions. Yet the evidence in favor of occasional tampering

[189] Ptolemy, *Almagest* 3.1.
[190] *Archons* 226–27.
[191] *IG* II².974; cf. *The Athenian Year* 189.
[192] See Taran's observations in *The Athenian Year* 206, note 11.
[193] *Cal. Pub. Cl. Arch.* IV.4 (1963) 388.
[194] See now, for example, R. Meiggs, *CR* 13 (1963) 334.
[195] *The Athenian Year* 56, 206.

with the calendar through suppression was already beginning to appear.

Pritchett has now devoted a section of his "Ancient Athenian Calendars on Stone" to these "Suppressed Days," and has given testimony to his growing belief that suppression of days might indeed precede the necessary corrections to be made later by addition. It is good to have this principle recognized. It makes easier the understanding of Aristophanes' complaint about the calendar in the *Clouds* 615–16:

ὑμᾶς δ' οὐκ ἄγειν τὰς ἡμέρας
οὐδὲν ὀρθῶς, ἀλλ' ἄνω τε καὶ κάτω κυδοιδοπᾶν·

and it is only logical that a dispensation which would permit irregularity in one direction would permit it also in the other. This may, then, be the answer to the intercalary character of the year of Heraclitus, and there is no need to move Heraclitus away from 137/6 and in so doing disrupt the whole chronological framework of this part of the second century.

The theory of an early suppression of days may now be applied to the year of Archippus (318/7). Indeed, the stone itself seems to favor the traditional restoration adopted by Kirchner for lines 37–38 of *IG* II².448: *Μαιμακτηριῶνος* [*ἕνει καὶ νέαι, πέν*]*πτει καὶ τριακοστεῖ τῆς πρυτανείᾳ*[*ς*]. It was clear from my examination of the stone in 1958 that the letter following the name of the month was *epsilon*; I could see nothing in the next letter space. But an upright (as of H) is preserved in the third space of the numeral of date,[196] and I now restore *ἕ*[*ν*]*η*[*ι καὶ νέαι*]. A reading with *ϵ*[*ἰκάδι – – –*][197] is not, I think, possible. But if the last day of Maemacterion was equated with Prytany IV 35, the 143rd day of the year, the archon must have suppressed four or five days in order that the last of Maemacterion, which normally would have been the 147th or 148th day, be counted also as only the 143rd.

VII. Further Calendar Adjustments

The beginning of the sixteenth Metonic cycle saw a displacement of intercalations similar to that of 166/5 and 165/4, for here the year of Epicrates (146/5) was ordinary in the festival calen-

[196] The stroke is the right upright.
[197] Cf. *The Athenian Year* 57.

dar,[198] whereas in the Metonic cycle, as second year of the cycle, it must have been intercalary. We do not know the character of the year in 147/6, which should have been ordinary. But the year of the archon Metrophanes (145/4) shows a marked divergence between the festival year and the year κατὰ θεόν (*IG* II². 967):

Prytany x 12 = Elaphebolion 22 κατ' ἄρχοντα
= Munichion 12 κατὰ θεόν

The prytany date agrees with the date by month κατὰ θεόν, indicating an ordinary year. But this month of Munichion must have been the 35th since the beginning of the cycle, whereas in the festival calendar Elaphebolion was the 34th month (if either of the years 147/6 and 145/4 was intercalary in the festival calendar) or the 35th month (if both 147/6 and 145/4 were intercalary κατ' ἄρχοντα). Assuming for a moment that they were both intercalary, one finds that the festival year 145/4 will have started even with the Metonic year, the one to be intercalary and the other ordinary. Thus it could happen that the month called Munichion κατὰ θεόν was called Elaphebolion κατ' ἄρχοντα. But that ten days should have been dropped from the festival year before Elaphebolion 22 seems unlikely; rather, the time of the Dionysia invited additions and not subtractions. Assuming, therefore, that only one of the years 147/6 and 145/4 was intercalary in the festival calendar, one finds that Elaphebolion κατ' ἄρχοντα in 145/4 will be the same as Elaphebolion κατὰ θεόν; and there is evident a postponement at the time of the Dionysia of 19 or 20 days,[199] for the κατὰ θεόν calendar had advanced to Munichion 12. Here the equation with the prytany calendar is with the calendar κατὰ θεόν, and that calendar is so named in the inscription.

It appears, from the evidence now known, that the prytany dates agree with dates in the calendar κατὰ θεόν and not κατ' ἄρχοντα *when the* κατὰ θεόν *dates are given.* On the contrary, when the κατὰ θεόν dates are not given, the prytany dates agree with the established dates given on the stone, *which even when untampered are not necessarily* κατὰ θεόν *dates in the strict sense of that term.* This is the evidence, and it is as far as the evidence goes. Pritchett's broader application of the term κατὰ θεόν, therefore, and his

[198] *Inscr. Délos* 1504: Prytany VI 19 = Posideon 19.

[199] Pritchett gives particular attention to this year (*Cal. Pub. Cl. Arch.* IV.4 [1963] 330–33), showing that the archon could intercalate days in the festival calendar. No one, I think, any longer denies this.

assumption that a hypothetical observational calendar should be so defined, are unnecessary. The Athenians already had a κατὰ θεόν calendar in the Metonic cycle.

There are, of course, a good many dates which show disturbance of the festival calendar and which have nothing to do with the Metonic cycle. In the year of Ergochares, for example (226/5), there was an intercalation of three days in Metageitnion which was corrected in Boedromion, in an intercalary year where the Metonic cycle (κατὰ θεόν) would have made the year ordinary. There was, therefore, a standard festival calendar, different from the calendar κατὰ θεόν, to which the prytany calendar was keyed. But it is not necessary to invent a new calendar to explain what kind of calendar this could have been. Variations from its norm occur sporadically in all ages, notably at the time of festivals, when postponement is the rule. I suggest that this calendar (which I have almost inadvertently called the festival calendar κατὰ θεόν) was a schematic arrangement of the months within the year, full and hollow, not necessarily all predetermined at the beginning of the year, but none the less considered to be the normal *festival* year.

There must have been occasions, especially in the second century, when the Athenians had to decide whether they would adapt the prytany year to this normal festival year or to the strictly κατὰ θεόν regulatory calendar of the Metonic cycle. If the archon at any time deviated from this predetermined scheme, he must have been obliged to let the citizenry know of the changes thus brought about in festival dates. But the progression of the prytanies went forward, as I believe, each prytany determined by lot and in length of tenure on the last day in office of its predecessor. The normal calendar was operative at all times; the regulatory calendar κατὰ θεόν of the Metonic cycle, so far as we know, was used only for about a century, and then not always, from 195/4 to 95/4 B.C.

The controls of this normal calendar played their part, indeed, in the divergences and readjustments back to normal in the years 222/1 and 221/0. I have already given a tentative solution to the problem of these two years.[200] Since the year 222/1 was begun

[200] *The Athenian Year* 173–75. Having now abandoned my belief that count of days μετ' εἰκάδας was sometimes forward, I agree with Pritchett that extra days (they need not have been more than one or two) were intercalated into the festival calendar of 222/1 before Boedromion 24. Cf. *IG* II².848, lines 27–29, as published in *The Athenian Year* 173.

as an ordinary year, and presumably so continued until the intercalation of a second Anthesterion, and since the year 221/0 shows the equation of Maemacterion with the sixth (not the fifth) prytany, one has the choice of rectifying the intercalation of 222/1 by omitting a month later in the year only to create the anomaly of 221/0 by adding a month early in that year, or of making no omission and no second addition but merely letting the conciliar year of 222/1 come to an end with Thargelion. This economical solution of a calendar difficulty was set forth in *The Athenian Year.*

Pritchett has noted the confusion in the calendars, but of my suggestions he says:[201]

> Confusing as the archon's calendar has been found to be in some years, the chaos which Meritt introduces into the calendar for the years 222/1 B.C. and 221/0 B.C. exceeds anything I have envisaged for Athens. For he has two administrations in office simultaneously, and nothing that we know about the Athenian government in the third century has prepared us for this. Meritt reconstructs the final months of 222/1 B.C. and the first months of 221/0 B.C. as follows (p. 175):
>
> 222/1 B.C. (archon: Archelaos)
>
> Mounichion κατ' ἄρχοντα = Thargelion κατὰ θεόν
> Thargelion κατ' ἄρχοντα = Skirophorion κατὰ θεόν
>
> Here the conciliar year, equivalent to the festival year κατὰ θεόν, ended, and the new conciliar year 221/0 commenced.
>
> Skirophorion κατ' ἄρχοντα = Hekatombaion κατὰ θεόν
> Hekatombaion κατ' ἄρχοντα = Hekatombaion II κατὰ θεόν
>
> This table seems to say that the archon Thrasyphon came into office on the first day of Skirophorion *kat' archonta,* when the archonship of Archelaos still had one more month to run. This is certainly a constitutional oddity. A decree passed, say, on the 11th day of this month of dual archonships would presumably be dated as follows: Prytany I, 11 = Hekatombaion *kata theon* 11 of the archonship of Thrasyphon = Skirophorion 11 of the archonship of Archelaos!
>
> Meritt misunderstands the meaning of *kata theon* dates. This is indicated by his use of the phrase "the festival year κατὰ θεόν." *Kata theon* dates were lunar dates determined by observation of the moon. The *kata theon* calendar determined the limits of the archon's year. Etc., etc.

[201] *Cal. Pub. Cl. Arch.* IV.4 (1963) 348.

I have quoted fully, because much needs to be clarified. The κατὰ θεόν dates were not determined by observation; as noted above, all κατὰ θεόν dates belong to the schematic years of the Metonic cycle. I should not have used the phrase κατὰ θεόν at all. The dates on the right side of the equations above are simply our own version of the schematic festival calendar before any tampering was applied to it. The introduction of an extra Anthesterion in 222/1 rates as tampering. The Athenians now had a choice of what to do with the prytany year: they could distribute the extra thirty days thus introduced over the last five prytanies of the year, using a device that they employed in 307/6, or they could let the prytany year run out at the end of the twelfth month with no increase in the length of any individual prytany. They chose the latter course. The definitions on the left in the above table are tampered dates until we reach Metageitnion in 221/0, when the normal names of months are again restored. The archon's tenure of office goes with the dates κατ' ἄρχοντα. But the prytanies march with the untampered calendar.

There is no "chaos" here. Pritchett confounds the issue with his hypothetical equation of the dates between the two calendars. There is nothing new in Athenian history in the idea that the prytany calendar and the festival calendar began at different times. This was the normal timing in the fifth century. And there was never any period of dual archonships: this is Pritchett's invention, not mine, and a decree passed on Hecatombaeon 11 κατ' ἄρχοντα in 221/0 would simply have been dated in the second prytany of that year.

We must revise our thinking about the calendar κατὰ θεόν. The assumption that "*kata theon* dates were lunar dates determined by observation of the moon" must give way to the tenet that they were schematic dates in the Metonic cycle, which is as far as the evidence warrants any assumption. The further assumption[202] that "the *kata theon* calendar determined the limits of the archon's year" is in reality drawn out of the blue. The κατὰ θεόν calendar, when dates are given in terms of it at all, is in harmony with the prytany calendar and presumably determines the beginning and the ending of that year, not necessarily of the archon's year, though coincidence would be normal and usual. Pritchett draws

[202] *Ibid.*

a graphic picture of the dilemma which he finds in my proposed table of correspondences

> that on the 12th day of Skirophorion Archelaos and his followers could celebrate the Skira, while, on the same day, the 12th of Hekatombaion, Thrasyphon and his followers observed the festival called the Kronia.

He fails to keep in mind that *all* festivals (so far as we know) were celebrated by the calendar κατ' ἄρχοντα, the tampered calendar, if there was tampering. This is the more surprising, since it was Pritchett himself who named this calendar the "festival" calendar. Indeed, the main purpose of tampering seems to have been the postponement or adjustment of the dates of the festivals. Archelaus and his followers would have been within their rights in celebrating the *Skira* in Scirophorion κατ' ἄρχοντα; but Thrasyphon and his followers could have in no way celebrated the *Kronia* on the same day, for that day (κατ' ἄρχοντα) lay a month in the future, and Thrasyphon was not yet archon. Pritchett, in his further argument, turns his back on the one logical restoration of *IG* II².839, which makes a solution of the calendar problem in these years possible.[203]

VIII. Conclusions

It would be tedious to enumerate all of Pritchett's strictures upon my study of the Athenian calendar. His attacks have been both general and specific, and where I have been in error, I am happy to acknowledge it; in this field there is no room for pride of position. So far as I am aware, there is no important document, known either to him or to me, that I have failed to consider. I have not discussed them all, but this is not "omission" to the detriment of the argument. I agree to the intercalation of days in the years of Metrophanes and Lysiades. The same is true of the year of Leochares.[204] I have discussed at length elsewhere, and here above as well, the year of Achaeus. I have discussed the years 307/6 and 222/1 and 221/0, about which Pritchett has said that he has been baffled. And I have commented on irregular lengths of prytany made to fit the festival year, not the year κατὰ

[203] Pritchett (above, note 201) 348 with note 42.
[204] Cf. Pritchett (above, note 201) 332 and 336, note 11.

θεόν, in 307/6 and in 296/5. Constant study of the inscriptions is vital. They cannot be left aside with a casual "I do not know" when they do not fit a preconceived theory.

My fundamental disagreement with Pritchett, for whose knowledge, pertinacity, and epigraphical skill I have high regard, is not so much in matters of detail in individual epigraphical problems —though these are serious enough—as in his whole conception of the calendar. He defends a double hypothesis, the observational κατὰ θεόν calendar and the rigid prytany calendar, and makes all other evidence conform, even at the expense of the most extreme and protracted chaos and irregularity. We have been able to show with great probability that the κατὰ θεόν calendar was the Metonic cycle and not a hypothetical substitute, and we know from the epigraphical evidence that a rigid prytany year was never uniformly applied. Indeed, even Pritchett's use of the literary evidence for the fourth century is founded on an arbitrary *idée fixe* about the interpretation of Aristotle.

One task of future research should be to define more closely the relationship between the festival calendar and the cycle of Meton. This last will remain above the law in its astronomical perfection; but no rule in the other calendars that depend on Athenian men and Athenian institutions can here be deemed inviolable, and a certain flexibility must be expected and tolerated in both the festival and the conciliar years. There are still long stretches where the nature of the calendar and even of the secretary cycles remains uncertain. We can only hope for new evidence and then interpret it, without prejudice, as best we can. The last half century has already yielded a rich reward of progress.[205]

[205] For recent publications on the Athenian calendar, see the summary by Paul A. Clement in *AJA* 69 (1965) 192–96.