

THE ROMAN CALENDAR, 190–168 B.C.

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IT HAS BEEN SAID that there is not enough evidence to support a complete system of equivalents between dates in the pre-Julian Roman calendar on the one hand and dates in an extrapolated Julian calendar on the other.¹ There is no question that this is true for most of the history of the Republic, but it has never seemed that attempts to do this for the years covered by the last 25 of the surviving books of Livy, 218–167 B.C., were so necessarily doomed to failure. Useful evidence is relatively abundant, especially from Livy himself and Polybius, as well as from the triumphal Fasti and indeed elsewhere. The potential result of the attempt is a valuable one. A thoroughgoing set of valid equivalents between Roman and seasonal years can help to provide the chronological framework that is essential to the ordering of the events of this period and that can serve as a useful tool in separating the various strands of Livy's narrative. One may be optimistic about the possibility of establishing such a framework for the whole of 218–167. For the moment, however, whatever may be thought of past attempts to show what the Roman calendar was up to during the second Punic war and for a decade thereafter, it seems clear that something approaching precision is attainable in dealing with the latter part of this period, namely 190–168. Each of these terminal years offers an astronomical synchronism, and between them there are three attested instances of intercalation and a fourth that deserves to be considered extremely likely. To put these indications together into a coherent system is a puzzle, but not an exceedingly difficult one: there is really only one acceptable solution. This solution can be checked. Along with a series of Roman dates in Livy and in the triumphal Fasti there is a collection of seasonal notations in the surviving parts of Polybius. If the proposed framework is valid, all these indications should readily square with one another, and what appears to be contrary evidence must be specially sought out and examined. In the end, as will be seen, everything does square, although this has not always been thought to be the case.

The problem of the Roman calendar from 190 to 168 is best approached initially from a strictly Roman point of view. First, there are the astronomical synchronisms. The solar eclipse known to have taken place on *14 March, 190 B.C.* is reported by Livy (37.4.4) to have befallen on the

¹So A. K. Michels, *The Calendar of the Roman Republic* (Princeton 1967) 170–171; and, most recently, A. E. Samuel, *Greek and Roman Chronology* (Munich 1972 = *HdA* 1.7) 163–164. The chief problem is uncertainty as to which years were intercalary and which were not.

11th of Quinctilis in consular 190.² From this it follows that the consuls of 190 entered office on *18 November, 191*.³ At the other end of the period Livy (44.37.8) tells us that there was a lunar eclipse *nocte quam pridie nonas Septembres insecuta est dies* (the night of 3 September) in consular 168, and this eclipse is known to have occurred on *21 June, 168*.⁴ This means that the consuls of 168 took office on *4 January, 168*.

The Ides of March, 190 fell on *18 November, 191*. If intercalation over the next 22 years had been regular, that is, if an intercalary month had been added every other year with regular alternation between 22 and 23 day intercalary additions, the Ides of March in 168 would have fallen on *11 December 169*.⁵ Thus, without special adjustment, the advance of the Roman calendar (as of the Ides of March) would have been reduced by 23 days, from 115 in 190 to 92 in 168. The Ides of March, 168, however, we know to have fallen on *4 January, 168*, which means that the Roman calendar was then only 68 days in advance. 24 days were added along the way that are not accounted for by regular intercalation. This requires one

²The validity of this synchronism was denied by K. J. Beloch, "Die römische Kalender von 218–168," *Klio* 15 (1918) 382–419, esp. 386–388, and decisively reaffirmed against that challenge (and all challenges) by M. Holleaux, "Le Consul M. Fulvius et le siège de Samé. Etude de chronologie" *Etudes d'Epigraphie et d'histoire grecques* 5 (Paris 1957) 249–284 (orig. *BCH* 1930).

³The following system of dating will be used here in the hope that it will be conducive to clarity. (1) Unless otherwise stated, all years, Julian or pre-Julian, are to be taken as running from January through December (for January as the first month in the pre-Julian Roman year; cf. Samuel, *Chronology* 164–165). (2) Except in the table of calendar equivalents presented below, 348–349, dates by the extrapolated Julian calendar, that is, true dates, are given in italics. (For the purpose of extrapolation, note that leap years in this period are 187, 183, etc.) (3) Pre-Julian Roman years are designated as the year B.C. with which they most nearly coincided. Thus, the Roman year 190 ran from 1 January, 190 (= *17 August, 191*) to 29 December, 190 (= *28 August, 190*); and the consuls of 190 entered office on the Ides of March, 190 (reckoning according to the calendar then in effect), but on *18 November, 191* (reckoning according to the extrapolated Julian calendar). When consular years are meant, this is always stated. (4) Intercalary years are those Roman years (as here defined) in which the intercalary month was inserted. Thus, if 190 is intercalary, the intercalary month occurred in that year before the consuls of 190 took office; the intercalation in 190 fell in the term of office of the consuls of 191 (in consular 191).

⁴This synchronism, too, was challenged by Beloch (*op. cit.* [n. 2], esp. 412–414). Its validity was effectively upheld against this by G. De Sanctis (*Storia dei Romani* 4. 1^a [Florence 1969] 359–365). The attack was renewed, however, by S. I. Oost ("The Roman Calendar in the year of Pydna," *CP* 48 [1953] 217–230). This renewed challenge was soundly repulsed by P. Meloni ("Ancora sul Calendario romano nell'anno della battaglia di Pidna (168 a. Chr.)," *Latomus* 13 [1954] 553–568), who put the validity of the synchronism beyond doubt. Cf. also P. Charneux, "Rome et la confédération achaienne (automne 170)," *BCH* 81 (1957) 181–202.

⁵On the number of days added in intercalary years (22 or 23) see Michels, *Calendar* 160–163; cf. Samuel, *Chronology* 160–161.

extra intercalation of 23 days and one extra day. The extra day must have been acquired when an intercalary year that would normally have had 22 extra days was given 23 instead. Until it is known when this occurred, this day must remain as the margin of error in any table of calendar equations.⁶ Of considerably more importance is the date of the extra intercalation, and, although no year can be absolutely proven to have contained it, the year 169 is considerably more likely to have done so than any other. 188, 176, and 169 are attested as intercalary years, the first two because they contain triumphs dated to the intercalary month.⁷ On this basis it has been postulated that intercalations at this time normally fell in "even" years;⁸ and one may add in support of this the likelihood that 174 was an intercalary year.⁹ 169 is not even and is, therefore, on this analysis, an exception, in fact the single exception that is required. Perhaps suggestive of the exceptional character of this intercalation is the fact that Livy (43.11.13) specifically records that a 23-day intercalation was performed in 169 (i.e., at the end of consular 170), a notice without parallel to this point in his history.¹⁰ That 169 had an extraordinary

⁶The Romans, it should be noted here, did not intercalate single days (see Michels, *Calendar* 164-167; cf. Samuel, *Chronology* 161-162). If a calendar coincidence had to be avoided (e.g., of the first day of the year with *nundinae*), the requisite adjustment could have been achieved by using a 23-day intercalation where a 22-day one was scheduled, or vice-versa. In the table that follows here (below, 348-349) the intercalation in 170 is made 23 days instead of 22.

⁷188: Livy 37.59.2; 176: *Fasti Triumphales*, under consular 177.

⁸So W. Soltau, *Römische Chronologie* (Freiburg i.B. 1889) 34-35, taking into account also the attested intercalation in 166 (Livy 45.44.3; *Fasti Triumphales*, under consular 167). Soltau argued in addition that 187 and 171 were not intercalary, since each of these two years contained a date given by Livy (38.42.2, 42.28.4, respectively) as *a.d.xii kal.Mart.*, with no indication that an intercalary month was at issue (as there is at 37.59.2: *mense intercalario pr.kal.Mart.*). This last argument may not be conclusive, but it is most promising, for there is nothing in Livy to suggest that it is not right.

⁹Since it contained a triumph dated to the Terminalia (*F.Tr.*, under consular 175). For this as strongly suggestive of an intercalary year, see Michels, *Calendar* 171-172; the same argument is applied to triumphs dated to the Quirinalia.

¹⁰Soltau (*loc. cit.*) reckoned the intercalation of 169 (as well as of that of 165: *F.Tr.*, under consular 166) as exceptional. The same was done by E. Cavaignac (*Klio* 14 [1915] 40), relying on the exceptional character of Livy's notice. The latter consideration is, to be sure, deprived of some of its force by the fact that Livy (45.44.3) in similarly precise fashion records a 22-day intercalation in 166, a year in which, on the present analysis, one was to have been expected. Soltau, in short, found what seems to me to be the right answer, although it may be said that he did not argue his case sufficiently and must be said that he did not take sufficiently into account the texts of Livy and Polybius (the same is even more the case with Cavaignac, *op. cit.* 40-42). Of the other 19th century writers on this subject, H. Matzat devoted ch. 2 of his *Römische Zeitrechnung* (Berlin 1889) to an extremely detailed attempt to reconstruct the Roman calendar from 190 to 168, which is, however, vitiated by the fact that he makes 176 a common year: it is attested as intercalary (cf. n. 7).

Roman year	Kal. Jan.	Kal. Feb.	Kal. Mart.	Kal. Apr.	Kal. Mai.	Kal. Iun.
190 ⁱ²³	17 viii 191	15 ix 191	4 xi 191	5 xii 191	3 i 190	3 ii 190
189 ^o	29 viii 190	27 ix 190	25 x 190	25 xi 190	24 xii 190	24 i 189
188 ⁱ²³	19 viii 189	17 ix 189	7 xi 189	8 xii 189	6 i 188	6 ii 188
187 ^o	1 ix 188	30 ix 188	28 x 188	28 xi 188	27 xii 188	27 i 187
186 ⁱ²³	21 viii 187	19 ix 187	8 xi 187	9 xii 187	7 i 186	7 ii 186
185 ^o	2 ix 186	1 x 186	30 x 186	29 xi 186	28 xii 186	28 i 185
184 ⁱ²³	23 viii 185	21 ix 185	11 xi 185	12 xii 185	10 i 184	10 ii 184
183 ^o	5 ix 184	4 x 184	1 xi 184	2 xii 184	31 xii 184	31 i 183
182 ⁱ²³	25 viii 183	23 ix 183	12 xi 183	13 xii 183	11 i 182	11 ii 182
181 ^o	6 ix 182	5 x 182	2 xi 182	3 xii 182	1 i 181	1 ii 181
180 ⁱ²³	27 viii 181	15 ix 181	15 xi 181	16 xii 181	14 i 180	14 ii 180
179 ^o	9 ix 180	8 x 180	5 xi 180	6 xii 180	4 i 179	4 ii 179
178 ⁱ²³	29 viii 179	27 ix 179	16 xi 179	17 xii 179	15 i 178	15 ii 178
177 ^o	10 ix 178	9 x 178	6 xi 178	7 xii 178	5 i 177	5 ii 177
176 ⁱ²³	31 viii 177	19 ix 177	19 xi 177	20 xii 177	18 i 176	18 ii 176
175 ^o	13 ix 176	12 x 176	9 xi 176	10 xii 176	8 i 175	8 ii 175
174 ⁱ²³	2 ix 175	1 x 175	20 xi 175	21 xii 175	19 i 174	19 ii 174
173 ^o	14 ix 174	13 x 174	10 xi 174	11 xii 174	9 i 173	9 ii 173
172 ⁱ²³	4 ix 173	3 x 173	23 xi 173	24 xii 173	22 i 172	22 ii 172
171 ^o	17 ix 172	16 x 172	13 xi 172	14 xii 172	12 i 171	12 ii 171
170 ⁱ²³	6 ix 171	5 x 171	25 xi 171	26 xii 171	24 i 170	24 ii 170
169 ⁱ²³	19 ix 170	18 x 170	8 xii 170	8 i 169	6 ii 169	9 iii 169
168 ⁱ²³	2 x 169	31 x 169	21 xii 169	21 i 168	19 ii 168	22 iii 168

intercalation is likely, but one must ask whether it was the only extraordinary intercalation between 190 and 168, whether intercalations fell with this one exception, in the "even" years. Proof is not possible, but there are reasons for answering this question in the affirmative. The chief consideration has to do with the Lex Acilia of 191. Whatever it was,¹¹ it had something to do with intercalation. At the time it was passed the Roman calendar was some four months in advance of the seasons, an advance easily perceived. The consuls took office several months before the beginning of their campaigning season, just about at the end of that of their predecessors. This situation had been brought about by a lack of regular intercalation, and this within the fairly recent past: in 217, at least, the Roman calendar had been quite in accord with the seasonal year.¹² It is fair to expect that the Lex Acilia aimed at guaranteeing that

¹¹On the Lex Acilia, cf. Michels, *Calendar* 101–103. It belongs to Acilius' consulship (191), not to his praetorship (196) as was believed by Beloch (*Klio* 15 [1918] 409) and Cavaignac (*REG* 37 (1924) 167).

¹²The solar eclipse mentioned by Livy (22.1.8) shortly after the beginning of consular 217 fell on 11 February, 217. The question as to just how the 4-month advance came to be must be taken up in a separate inquiry. I would say here only that one should be prepared to entertain the possibility that it was allowed to happen, or, that once the advance started, it was allowed to become steadily greater. One not untoward effect of

Kal. Quinct.	Kal. Sext.	Kal. Sept.	Kal. Oct.	Kal. Nov.	Kal. Dec.	Roman year
4 iii 190	4 iv 190	3 v 190	1 vi 190	2 vii 190	31 vii 190	190
22 ii 189	25 iii 189	23 iv 189	22 v 189	22 vi 189	21 vii 189	189
7 iii 188	7 iv 188	6 v 188	4 vi 188	5 vii 188	3 viii 188	188
25 ii 187	17 iii 187	15 iv 187	24 v 187	14 vi 187	13 vii 187	187
8 iii 186	8 iv 186	7 v 186	5 vi 186	6 vii 186	4 viii 186	186
26 ii 185	29 iii 185	27 iv 185	26 v 185	26 vi 185	25 vii 185	185
11 iii 184	11 iv 184	10 v 184	8 vi 184	9 vii 184	7 viii 184	184
28 ii 183	31 iii 183	29 iv 183	28 v 183	28 vi 183	17 vii 183	183
12 iii 182	12 iv 182	11 v 182	9 vi 182	10 vii 182	8 viii 182	182
2 iii 181	2 iv 181	1 v 181	30 v 181	30 vi 181	29 vii 181	181
15 iii 180	15 iv 180	14 v 180	12 vi 180	13 vii 180	11 viii 180	180
4 iii 179	4 iv 179	3 v 179	1 vi 179	2 vii 179	31 vii 179	179
16 iii 178	16 iv 178	15 v 178	13 vi 178	14 vii 178	12 viii 178	178
6 iii 177	6 iv 177	5 v 177	3 vi 177	4 vii 177	2 viii 177	177
19 iii 176	19 iv 176	18 v 176	16 vi 176	17 vii 176	15 viii 176	176
8 iii 175	8 iv 175	7 v 175	5 vi 175	6 vii 175	4 viii 175	175
20 iii 174	20 iv 174	19 v 174	17 vi 174	18 vii 174	16 viii 174	174
10 iii 173	10 iv 173	9 v 173	7 vi 173	8 vii 173	6 viii 173	173
23 iii 172	23 iv 172	22 v 172	20 vi 172	21 vii 172	19 viii 172	172
12 iii 171	12 iv 171	11 v 171	9 vi 171	10 vii 171	8 viii 171	171
25 iii 170	25 iv 170	14 v 170	22 vi 170	23 vii 170	21 viii 170	170
7 iv 169	8 v 169	6 vi 169	5 vii 169	5 viii 169	3 ix 169	169
20 iv 168	21 v 168	19 vi 168	18 vii 168	18 viii 168	16 ix 168	168

Note: ° = common year (355 days); ¹²² (23) = intercalary year with 22 (23) days added. For the attested intercalations (188, 176, 169, and probably 174), see above; cf. also n. 6, *ad fin.*

intercalation would henceforth be regularly performed.¹³ It seems inconceivable that in the years after the Lex Acilia, while the Roman calendar was still distinctly in advance of the seasons, two non-intercalary years would have been allowed to occur in succession. The fact that 188, 176, and probably 174 were intercalary (and that 187 and 171 probably were not) suggests that a regular scheme of alternating intercalary and common years was at issue. If, in addition, common years were not repeated in succession, then a single extraordinary intercalation in 169 is

the advance was that it removed the beginning of the consular year from the start of the campaigning season (by three to four months as of 190): this was surely desirable when overseas campaigns were at issue.

¹³Each successive missed intercalation would throw the calendar 10 days (11 in leap years) more out of line with the seasons and would push the beginning of the consular year back by the same amount. In 191 (assuming that an intercalation occurred in 190, during Acilius' consulship) the consuls entered office on 5 or 6 November. If no intercalation had followed, the date would have been 20 days earlier in 2 years, a month earlier in three years' time. Such a date would have meant either an awkward change in command during campaigns already some months old or the necessity of proroguing all commands.

the only way to account for the 47-day retardation effected between 190 and 168. From this follows the system of equivalents presented above. From the particular cases now to be examined it will, I hope, emerge that the improvement in the relation of the Roman calendar to the seasonal year between 190 and 168 was indeed a steady one.

Between 190 and 168 there is only one certain chronological indication that might seem to be seriously at odds with the arrangement proposed here, namely the solar eclipse reported by Livy at 38.36.4. The eclipse cannot be other than that of 17 July, 188, and the difficulty lies in the fact that Livy seems at first sight to place it early in consular 188, which, on the present analysis, began on 21 November, 189.¹⁴ It is however, by no means certain that Livy has put the eclipse early in the consular year. The *supplicatio* occasioned by the eclipse occurred *priusquam in provincias novi magistratus proficiscerentur*, and a problem exists only if their departure was prior to 17 July, 188. Not surprisingly, there is no precise indication as to the date of their departure. One would ordinarily have expected them to have left Rome well before mid-July, but in the present case it is not only possible but perhaps even likely that the consuls arrived rather later than usual in their provinces. Valerius, in particular, Livy reports as having been unusually late in returning to Rome to hold the elections for 187.¹⁵ At the same time one should note that of the two sections in Livy dealing with the events at Rome of consular 188 (38.35.7–36.10; 38.42.1–7), the second begins *exitu prope anni*, which is not an indication that the first was restricted to the beginning of that consular year. The eclipse of 38.36.4 may be placed in July 188, where it belongs, without necessarily doing any violence to Livy's narrative.

A chronological question of a much more complicated sort revolves about the relation between Polybius 25.4.1–6 and Livy 41.6.8–12. Both refer to the same Lycian embassy to Rome.¹⁶ The date in Livy is late in consular 178. Polybius indicates that the Senate dealt with the Lycians ἡδὴ τῆς θέρης ἀγγούσης (25.4.2), but the year is a matter of doubt (on the consuls in 25.4.1, see below). It is either 178 or 177. As these passages bear upon the state of the Roman calendar only if they both refer to the same

¹⁴For the suggestion of a difficulty cf. F. K. Ginzel, *Handbuch der mathematischen und technischen Chronologie* 2 (Leipzig 1911) 217, 529 n. 6.

¹⁵Livy 38.42.1: *Exitu prope anni M. Valerius consul ex Liguribus ad magistratus subrogandos Roman venit, nulla memorabili in provincia gesta re, ut ea probabilis morae causa esset, quod solito serius ad comitia venisset*. These elections were held 18 February, 187 (=17 October, 188). If Valerius arrived in Liguria latish in July, it would be no surprise if he was anxious to stay there as long as possible. The elections, not the lateness of the season, forced him to leave.

¹⁶Their reports vary in detail, indicating that Livy is following not Polybius, but another (presumably annalistic) account of the same event (cf. H. Nissen, *Kritische Untersuchungen über die Quellen der 4. und 5. Dekade des Livius* [Berlin 1863] 239–240).

year, it is essential to determine to which year Polybius' account belongs.

Pédech assumed without argument that the summer in question was that of 178, while Nissen, also without argument, had previously stated that Polybius' account of the Lycian embassy belonged to the late summer of 177.¹⁷ The question is where in the Polybian Olympiad year does this *ληγούση θερεία* belong, at the beginning (Pédech) or at the end (Nissen). At 28.2.1 *ἤδη τῆς θερείας ληγούσης* falls without question late in the Olympiad year 152, 3 (cf. 28.16.5 for the beginning of that summer in the same Olympiad year).¹⁸ From 32.10.1-2, however, it is clear that a Polybian Olympiad year can begin late in the summer. The year is Ol.155, 3 (158/7), and the *θερεία* in *ἔτι θερείας οὔσης* at 32.10.1 is that of 158.¹⁹ The decision on the point of reference of 25.4 must be taken on other grounds, and what additional indications there are all support late summer 178. The activity of the Roman ambassadors to Rhodes, whose dispatch was occasioned by the Lycian embassy, is reported (25.5) under the same Olympiad year (*scil.* 150, 3). It is, first of all, hard to see how, if the Lycian embassy belongs late in Ol.150, 3, the Roman embassy to Rhodes, could fall still later in Ol.150, 3, and, secondly, it seems unlikely that an overseas embassy would have set out this late in the season. More likely, the Lycian embassy belongs to late summer/early autumn 178 (i.e., early in Ol.150, 3) and the Roman embassy to spring 177. Further, there may be some reluctance to believe that the Lycian embassy really does appear under the wrong year in Livy, despite the fact that Livy has derived the account from an annalist. An instructive parallel is the Rhodian embassy of 44.14.5 ff., recorded under consular 169. This is the same embassy as that recorded by Polybius (28.2: Ol.152, 3 = 170/169). It comes out quite differently in Livy and thus indicates that he was not following Polybius, but the date is right.²⁰ Finally, it will be seen shortly

¹⁷Nissen, *Kritische Untersuchungen* 239; P. Pédech, *La Méthode historique de Polybe* (Paris 1964) 462. Pédech was not aware of the implications of this passage as it stands for the state of the Roman calendar; see below, 352 and n. 21. Pédech's arguments (*Méthode* 461-464) about the duration of the seasons for Polybius, particularly that *θερεία* began with the heliacal rising of the Pleiades (round the 20th of May) and *χειμὼν* with their cosmical setting (round the 7th of November) seem essentially valid, although no calendar equations for such seasonal dates should be pressed too hard, nor should they be held always to stand in precisely the same relation to the termini of Polybius' Olympiad years.

¹⁸*Ληγούσης ἤδη τῆς θερείας* at Pol. 3.19.12 is no help in the present discussion.

¹⁹The excerptor has, to be sure, been at work on the beginning of 32.10, but the fact that the *Res Italiae* of the previous two years are also preserved in Y renders it virtually impossible that the summer at 32.10.1 belongs to Ol.155, 2.

²⁰Livy's Rhodian embassy in 169 is the one referred to by Pol. 28.2, 16.5. Livy's Rhodian embassy at Rome in the following year (45.3.3 f.) is the same as that described by Pol. 29.19 (29.10 for its dispatch). The Rhodian legati in the Roman camp in 168 (Livy 44.35.4-6) are those who were dispatched in Pol. 29.10 (some envoys were sent to

that Livy's Lycians are in Rome at quite the same time of year as Polybius'. For these reasons the *θερεία* in Polybius 25.4 should be taken as that of 178.

This, in turn, poses problems of its own. Polybius' account of the Lycian embassy begins as follows (25.4.1–2; from the excerpts *Περὶ πρέσβειων ἔθνων πρὸς Ῥωμαίους*):

Ὅτι μετὰ τὴν ἀποστολὴν τῶν ὑπάτων Τεβερίου καὶ Κλαυδίου τὴν πρὸς Ἰστρὺν καὶ Ἀγρίου ἡ σύγκλητος ἐχρημάτισε τοῖς παρὰ τῶν Δυκίων ἡκουσι πρεσβευταῖς, ἥδη τῆς θερείας ληγούσης, οἵτινες παρεγένοντο μὲν εἰς τὴν Ῥώμην κτλ.

According to this, the Lycian legation met the Senate toward the end of summer 178, after what is generally taken to be the dispatch of the consuls of 177, Ti. Sempronius Gracchus and C. Claudius Pulcher. If this is indeed the case, then these consuls entered office sometime during the summer of 178, and not on 20 November, 178, the date that emerges from the above table. This would mean that the Roman calendar, instead of being less advanced over the seasons than in 190, had rather become more advanced. This must seem odd, and the pattern of intercalation it would require is odder still. There could have been no more than two or three intercalations between 190 and 177. Further, there could have been, from 177 to 168, no year without an intercalation, and even then the calendar could not have got to where we know it was in 168.²¹ Something is

Rome, others to the consul; Polybius' report of the activity of those sent to the consul has perished). Livy seems to believe that all the Rhodian ambassadors he mentions were the same, or at least the ones in Rome in 169 and 168 (see esp. 45.3.3; cf. 44.35.4). Of course they were not. His difficulty arose from the fact that he failed to note that new Rhodian ambassadors were sent to Rome and to the consul in 168 (Pol. 29.10; see 28.16 for identical missions in 169). One must, however, insist that he always has Rhodian ambassadors in the right place at the right time. He has not, as Nissen believed (*Kritische Untersuchungen* 261–262), reported any of the Rhodian embassies in other than their proper context. That the embassy to Rome in 169 is thoroughly misrepresented in Livy is a separate matter; there were Rhodian ambassadors in Rome in 169. The time of their presence in Rome should also be remarked. In Polybius (28.2.1) it is *ἥδη τῆς θερείας ληγούσης*. In Livy the item next following is the reading of a report from the consul Philippus about the entrance into Macedon and the prospects for provisions for the winter (44.16.1–3). Latish summer is appropriate for this. At 44.16.8 the census is reported and dated to the Ides of December. The Julian equivalent for this (15 September, 169) is thoroughly in accord with Polybius' seasonal indication for the Rhodian embassy, which is nearly contemporary with the census.

²¹If there were three intercalations 190–177, Id.Mart. 177 would have fallen *mid-September, 178*; if two, then about three weeks earlier. For the consuls to have been elected and to have departed for their provinces by late summer, Id.Mart. 177 cannot easily have fallen much if at all after late August. It is, moreover, clear from Livy that the consuls of 177 not only did not leave soon after entering office but in fact delayed their departure for some time (41.8.4 for beginning of their term; 41.10.11; Sempronius is still in Rome; 41.10.13; Claudius succeeds in leaving Rome for good; cf. also 41.10.1

evidently amiss, something that does not concern the system of equivalents suggested here for Roman dates between 190 and 168.

According to Livy, the Lycian ambassadors were heard not only before the departure of the consuls of 177, but before their election as well (41.6.8–12; 41.8.1 for the election). Following the Lycian episode Livy reports the triumphs of Ti. Sempronius Gracchus and L. Postumius Albinus (over Celtiberi and Lusitani, respectively). No dates are given, but these triumphs are described as *continui* (41.7.1). They are dated in the *Fasti Triumphales* to *a.d. III non. Feb.* and *pr. non. Feb.* in consular 178. On the system here proposed, these Roman dates translate to *11 and 12 October, 178*. Livy's narrative thus suggests that the Lycians met the Senate sometime in *September, 178* (early *October* at the latest), and this answers closely to Polybius' indication, ἥδη τῆς θερείας ληγοῦσης.

There remains the obvious difficulty about the "dispatch of the consuls" of 177 that prefaces Polybius' account of this episode. But did Polybius refer to the dispatch of these consuls at all? Ἀποστολή may mean "dispatch," but in this sense ἐξαποστολή is standard in Polybius.²² Moreover, the expression at 25.4.1 seems an odd way to refer to the *profectiones* of the consuls of 177. It suggests that they shared this ἀποστολή, but the consuls of 177 went one, Claudius, to Istria, and the other, Gracchus, to Sardinia, and they departed Rome at different times.²³ The Agrioi are otherwise unknown, but there is certainly no reason to connect them with Sardinia.²⁴ Ἀποστολή can also mean "expedition," and this

for *principio veris* 177: if this is an actual seasonal indication, it must be spring 177, a proof that the consuls of 177 did not leave Rome late in the preceding summer. "Spring" just might, however, mean no more than "early in the consular year"; cf. below, 354). However, even if all the years from 176 through 168 were intercalary (with 23 days added), Id.Mart. 177 can still have fallen no earlier than *11 September, 178*. That is to say, the extreme hypothesis of a run of nine consecutive 23-day intercalations is not sufficient to allow the consuls of 177 to have succeeded in leaving Rome by the late summer of 178.

²²For the words see A. Mauersberger, *Polybios-Lexikon* (Berlin 1956–) s.vv. Apart from 25.4.1, ἀποστολή can mean "dispatch" only at 14.2.13 (Mauersberger gives "Entsendung"), but it is by no means clear that it does. The activity at issue there is, at all events, not like the dispatch of consuls from Rome to their provinces; cf. 2.31.8: ἐξαπέστειλαν τοὺς ὑπάτους.

²³Cf. above, n. 21.

²⁴The Ethiopian Ἀγριοι presumably do not come into play here (Strabo 16.4.10, 771C.; cf. *RE* 1 [1894] Ἀγριοι [1]; this was in any case a local name for the Kynamolgoi). It is altogether possible that Ἀγριοι at 25.4.1 is a mistake and conceals some like-named and otherwise known people. In Thrace there were Ἀγριᾶνες (cf. Pol. 2.65.2, etc.). Near Akarnania were the Ἀγραῖοι (Steph. Byz., s.n.; cf. Pol. 18.5.8: τὸ τῶν Ἀγραῶν ἔθνος, and see Walbank, *Commentary*, ad loc.). Then there were the Ἀγρίαι, who are probably identical with one of the two peoples already mentioned (Steph. Byz., s.n.; he locates them in Thrace and makes them identical with the Agrianes, but cites as referring to them Polybius 18 (5.8), which has to do rather with the Agraioi; cf. on this Schweig-

does seem much more likely to be what is at issue here.²⁵ The consuls of 177 did not share an expedition. Those of 178, however, did: at least both were involved with the Istrian *tumulus*, the settlement of which Livy reports shortly before the arrival of the Lycian embassy at Rome (41.5.5–6.1). I would suggest that this is the ἀποστολή referred to at Polybius 25.4.1, that it belongs to the consuls of 178, and that the names Τεβερλίον καὶ Κλαυδίον were erroneously inserted by the Constantinian excerptor in an attempt to clarify the ὑπάτων he found at this point in Polybius' text.²⁶ His error stems from the fact that he knew that Sempronius and Claudius were the consuls who took office in, and served for most of, Ol.150, 3 (178/77), the Olympiad year to which this fragment refers.²⁷ The upshot of this is that the sequence of Livy's narrative may now be seen to correspond to what there is left of Polybius. The chronological considerations that this affords are welcome, for the collocation of the Roman dates for the triumphs of Postumius and Sempronius with Polybius' ἤδη τῆς θερείας ληγοῦσης provides strong corroboration of the set of calendar equations for 190–168 offered above. The equivalents for 177 are confirmed as closely as could be hoped, and this in itself is a certain indication that the retardation of the Roman calendar from 190 to 168 was in fact steady, that is, that intercalation was performed regularly, with the single exception (169) already noted.

Such, I believe, is the extent of the evidence that might at first seem to pose problems for the system of calendar equations here proposed. Of these two instances, neither is at odds with this system and one stands instead in support of it. Such other relatively precise chronological indications as there are for the years in question provide more corroboration. At 40.2.1 Livy reports: *ver procellosum eo anno (scil. consular 182) fuit*, on

häuser's comment on Pol. 17.5.8 (= 18.5.8 Büttner-Wobst). There is no way of deciding positively whether any of these peoples is relevant to Pol. 25.4.1 (none is really in the right area), but they would seem to be candidates (Schweighäuser reckoned that the Ἀγριοί of 25.4.1 [his 26.7.1] were the same as the Agraioi [or Agraioi] of 18.5.8 [his 17.5.8], if the reading in the former passage is right: see his comment on 26.7.1 [= 25.4.1 B-W] and the entry in his historical index under Agrii). Tomaschek (in *RE* 1 [1894] Ἀγριοί [2]) gives for our Agrioi the following: "Als ein Volk Illyricums von Polyb. (25.4.1) . . . neben den Ἰστροί genannt." He does not, alas, explain this.

²⁵For ἀποστολή at 25.4.1 Mauersberger, *s.v.*, gives "Expedition (τῶν ὑπάτων πρὸς Ἰστρούς)": for this sense, cf. Thuc. 8.8.1.

²⁶A variant possibility is that the ἀποστολή refers not to the expedition itself, but to the decision of the Senate to send Iunius to help against the Istrians (Livy 41.5.5).

²⁷The excerptor responsible for the *De Legationibus Gentium* has elsewhere inserted names in condensed introductions to his selections: see 18.42.1, 21.34.3 (in each instance the name is that of the consul in office for most of the Olympiad year to which the selections belong; in these two cases the individual designated is the appropriate one). In his compression at the first part of 20.2 he has gone quite astray, putting Φιλίππου where he should have put Ἀντίοχου.

account of a specially severe storm that occurred *pridie Parilia*. That it was stormy about this time is not surprising, but it was not spring at all (save by the Roman calendar): *pridie Parilia* (20 Aprilis) fell on 1 January, 182. Similarly, it emerges from Livy 40.45.1-2 that winter snow storms occurred fairly early in consular 179, not surprising when Id. Mart. 179 = 19 November, 180. At some point late in consular 170 three *legati* were sent to investigate the state of affairs in Macedon (Livy 43.11.2). They returned *exacto admodum mense Februario* with a report on the successes achieved by Perseus *ea aestate* (43.11.9), which is thoroughly in accord with the equation of Roman 20 February with 6 November, 170 provided by the above table. They had been dispatched, as one would have expected, round the end of summer. All of this, I would suggest, warrants confidence not only in the present table of equations but also in the Roman dates given by Livy and the *Fasti Triumphales*, at least for the years here under review.

APPENDIX: THE ROMAN CALENDAR AFTER 168

When Livy's continuous narrative breaks off, the high degree of certainty possible in the above discussion ceases at once to be available. Nevertheless, as anything that can be known about the state of the calendar in the years soon after 168 has some relevance to its state before 168, it seems best to continue this discussion at least a short way into these poorly attested years. In particular, two passages of Polybius have been taken by Pédech to indicate that in 159 and 157 the Ides of March fell some time earlier than they had in 190, not to mention 168. This would have clear implications for the system here proposed for 190-168, if it were true, but these passages indicate rather that after 168 the calendar proceeded happily along the course of retardation charted above. Briefly, we know that 166 was intercalary with 22 days added (Livy 45.44.3; cf. *Fasti Triumphales* under consular 167 for a triumph on the Quirinalia; cf. above, n. 9, for the significance of this last) and that 165 was intercalary (*Fasti Triumphales*, under consular 166). Down to 165, then, the Ides of March will likely have fallen thus: 167^o: 25 xii 168; 166¹²²: 5 i 166; 165¹²³: 18 i 165 (if 167 was intercalary, all these dates would be 22 or 23 days later). If there was no intercalation after 165, the Ides of March in 159 can have fallen no earlier than 17 November, 160 (9 or 10 December, 160, if 167 was intercalary), those in 157 no earlier than 27 October, 158 (18 or 19 November, 158, if 167 was intercalary). That is to say, even if intercalation was completely abandoned for eight years after 165, the consuls of 159 can have entered office no earlier than early winter, those of 157 only just before its beginning (and this already involves pressing the astronomical date too hard: cf. above, n. 17).

The two passages of Polybius involved here are 32.1.4–5 (Ol.155, 1 = 160/159) and 32.10.1–2 (Ol.155, 3 = 158/7). Pédech (*Méthode* 462) believed that according to the former the consuls of 159 entered office *ἐν πρὸ τοῦ χειμῶνος*. This it does not say. The ambassadors of Ariarathes were dismissed by the Senate *ἐν πρὸ τοῦ χειμῶνος*. It was after this that the consuls of 159 took office. According to 32.10.1–2, Pédech believed (*ibid.*) the consuls of 157 took office *ἐν θερείας οὔσης*, that is, before the end of summer 158. This, again, is not what the passage says. Ariarathes arrived in Rome *ἐν θερείας οὔσης*. It was sometime after this that the consuls of 157 entered office (note especially *τότε δέ* at 32.10.2). Such unclarity as there is has resulted from the excerptor's compression here (cf. above, n. 19). There is nothing in either of these passages (nor, I think, anywhere else) to suggest that in the years soon after 168 the Ides of March did not continue to become steadily later in relation to the seasonal year. Whether the process was accelerated by extra intercalations one does not know, but for some reason it was decided that as of 153 the consuls should enter office two and a half months earlier, on the Kalends of January.

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