

THE DATE OF THE HERMOPOLITE LAND REGISTERS: A REVIEW ARTICLE Author(s): ROGER S. BAGNALL Source: The Bulletin of the American Society of Papyrologists, Vol. 16, No. 3 (1979), pp. 159-168 Published by: American Society of Papyrologists Stable URL: http://www.jstor.org/stable/24519448 Accessed: 14-04-2017 21:05 UTC

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at http://about.jstor.org/terms



American Society of Papyrologists is collaborating with JSTOR to digitize, preserve and extend access to The Bulletin of the American Society of Papyrologists

THE DATE OF THE HERMOPOLITE LAND REGISTERS: A REVIEW ARTICLE

For almost three-quarters of a century, *P. Flor.* I 71 (published in 1906) has been a principal source for the social and economic history of fourth-century Egypt. This extensive (824 lines) land register from the Hermopolite Nome furnishes a wealth of information on the landholding patterns of the time, on the offices, occupations and ranks attached to many names, and on onomastics. It is a principal document in A. H. M. Jones's well-known article on "Census Records of the Later Roman Empire" in *JRS* 43 (1953) 49-64 (*=The Roman Economy* [Oxford 1974] Chapter X). The papyrus was edited when papyrology was a young science, and not many contemporary papyri were available for comparison. The largely parallel *P. Giss.* I 117 was mainly described in *P. Giss.* (fascicle 3, 1912). The text of *P. Flor.* 71 is in fact full of errors, and that of *P. Giss.* 117 is essentially unavailable.

Now P. J. Sijpesteijn and K. A. Worp have in their latest work¹ taken up the task of a revised edition of these two papyri; they have made numerous new readings, and they have provided plates of most pages of these codices so that the reader can make his own verifications. From now on the user of these registers will find his task greatly facilitated (not least by the cross-references given for every appropriate entry), and theories can be built on far more secure foundations than heretofore.

To this work is added an appendix in which R. Pintaudi republishes *P. Flor.* I 87, which contains 30 lines of the same codex as *P. Flor.* 71 and

1 P. J. Sijpesteijn and K. A. Worp, Zwei Landlisten aus dem Hermupolites (*P. Landlisten*) (Studia Amstelodamensia ad epigraphicam, ius antiquum et papyrologicam pertinentia 7). Terra Publishing Company, Zutphen, Holland, 1978. Pp. x, 14, 4 plates plus 2 separate fascicles of plates of 30 and 36 plates respectively. Hfl. 80.

preceding its line 1, and 32 lines of the end of the codex: the first and last leaves of *P. Flor.* 71, in effect. It is a pity that these lines are relegated to an appendix and not integrated into the text of *P. Flor.* 71, but at least their reedition is welcome. A new fragment of *P. Flor.* 87, part of the same or a similar register, is also published.

In a second appendix, Sijpesteijn and Worp republish *Stud. Pal.* V120, an earlier register of a similar sort from Hermopolis, incorporating a large newly-identified fragment. One index treats all of the book except Appendix II, which has a separate one.

The plan of the work is thus somewhat eccentric, a result perhaps of too many discoveries made too late in the process of editing and printing. The mode of reference is not less curious: *P. Flor.* 71 and *P. Giss.* 117 are referred to internally as F(lorence) and G(iessen) most of the time; sometimes the original publication numbers appear, and occasionally the inventory number of G. In the preface, however, the editors suggest *P. Landlisten* I. II, III and IV respectively for G, F, Anhang I (*P. Flor.* 87) and Anhang II (*Stud. Pal.* V 120), but they themselves ignore this proposal throughout.² In what follows I will use F and G as the editors do.

In sum, we have been given a carefully revised and greatly improved text of several important papyri and for the first time the full text of another. We also have excellent photographic documentation of these. For all of this Sijpesteijn and Worp deserve our gratitude. If the economy of the work is not all that one would like, that is really only a minor inconvenience. This work will surely be the basis of much study to come.

It is for that reason that I must devote an extended discussion to the date of these registers. The editors have, I believe, gone drastically astray; their proposed date is wrong by a quarter-century, and the implications for a whole host of problems of social and institutional history are not small.

First, the editors argue that G is earlier than F. The basis for this conclusion is largely the appearance (apparently alive) in G of persons whose heirs are the owners in F. There is some evidence in the reverse direction, however, and in essence the preponderance of instances prevails. Probably this is correct; but it does not matter very much for our purposes, as the very high percentage of the same names in both suggests a difference of no more than a few years.

The absolute date is the real problem. No one doubts that these are fourth-century documents. The use throughout of the system of numbered *pagi* points to a date after 307/8, and the open appearance of bishops, deacons and *presbyteroi* almost certainly postdates the end of the

2 Nor is '*P. Landlisten*' well-chosen. It will seem cabalistic to the non-papyrologist (after all, how many land registers have been published?). P suggest *P. Herm. Landl.* as preferable.

persecutions, in 313 (after the Milvian Bridge; cf. below for further discussion).

From this secure basis, the editors proceed to attempt to demonstrate that the Amazonios whose extensive landholdings are listed in F (the pertinent part of G is lost) was the father of the Aurelia Charite who is known from a considerable number of documents (Worp has assembled the archive and is now preparing its publication), and that on the basis of this dossier one may conclude that Amazonios was dead by 325 and probably 316. They thus arrive at a very narrow band of time (311/313 to 316 or 325) for the date of F.

All this may strike the reader as very plausible—until one examines on page 19 the list of *other* possible identifications of persons who appear in F and G with those known from other papyri. Of those with known dates, we find the following ranges of attestation: 374–404, 377 and 390, 373, 357 to 393/4, 379, 376 (those only roughly datable are omitted). One is startled to see so many persons alive 40 to 80 years later, and it is a natural conclusion that a date near or even after the middle of the century would be suitable for the registers. To dismiss them all with the statement that they "very apparently must concern different generations" is perverse; one might better dismiss one identification on these grounds than six.

In what follows I consider the three areas in which I believe it possible to make some progress toward the dating of F and G: (1) the amounts of currency collected and recorded in F 24-42; (2) the appearance of church officials in the registers; and (3) the prosopographical connections.

1. Tax Payments in Money

The most reliable and precise, in my judgment, of these three criteria for dating is the list of tax payments in talents in F 24-42. The list is headed $\epsilon i \sigma \pi \rho \alpha \xi_{1S}$ 'Avtivóov (sc. $\pi \delta \lambda \epsilon \omega s$) Xoí $\alpha \kappa' \delta'$, guaranteeing that we are dealing with collections of taxes; whether these are *adaeratio* of the landtax or rather some *merismoi* calculated in money, we cannot say.³

3 E $lo \pi \rho \alpha \xi_{is}$ has only two meanings in papyri of the Roman and Byzantine periods, (1) the collection of amounts of something owing to the public treasury, and (2) the execution of a debt stemming from a contract, i.e. a use synonymous with that of the normal $\pi \rho \alpha \xi_{is}$. The latter usage is very late (e.g. *P.Oxy.* VI 914.14 [486p]; *P.Oxy.* XVI 1891.19 [495p]; *P.Oxy.* XIX 2237.17 [498p]; *P.Oxy.* 1136.24,37 [583p]: is this purely an Oxyrhynchite usage?), and all examples appear in contracts, although in the Ptolemaic period this usage was attested in a legal code (*P.Lille* 1 29.5); it is therefore certainly not the meaning in this register. The other usage, of public collections, is occasionally general in use (as in prefectorial edicts), and on occasion extended to refer to the collection of recruits (*W.Chr.* 469.4; but this is not from Egypt); but in public accounts, registers and reports, the meaning is always that of the collection of taxes, whether in grain or in money. I cite only a few examples from the Roman period: *P. Thead.* 30.1 = *P.Sakaon* 10; *Archiv* 4 (1908) 122 iv.4; *PSI* V 461.12; *BGU*1134.3; II

The payments come from Antinoites, and the persons can be retraced in all but two cases in that section of the list of landholdings. One can thus obtain a figure of how many talents per aroura owned each person paid. We may assume that each payment represents *at most* the total taxes due on a landholding (it may be much less), and that some payments, if not all, are partial. Thus, we must take the higher amounts per aroura as representing more truly the tax burden. If these amounts are then converted into artabas of wheat according to our information about prices at various periods, a very rough (but accurate at least in order of magnitude) measure of the minimum burden per aroura in terms of grain may be reached. Those persons for whom the calculations can be performed (not all numbers are adequately preserved) are given by line number here:

F 25	53.9375 ar.	3,734 T.	69 T/a
26	4.25	140	33
27	17.25	340	20
28	14	1,200	86
29+31+35	46	4,280	93 ⁴
30	16.25	1,226	75
32	11.5	220	19
33	33.5625	2,600	77
34	70.9375	6,000	85
36	21.625	1,1005	51
37	34.75	400	12
38	17.4375	1,560	89
39+40	7.25	754	104
41	18.375	1,600	87
42	6.33	550	87
The distribution runs			
10-20	3	61-70	1
21-30	0	71-80	2

^{652.6;} III 753 v.8; *P.Oxy.* XII 1433.11,42. *WB* I and IV and Supplement list many more. Whether we are dealing with land taxes or *merismoi* is not clear; since the latter were based on land, however (as seems clear from *P.Oxy.* XVI 1905 and other evidence which I will discuss on another occasion), it does not matter for our purposes which is in question here.

5 I read on the plate $A\rho$, not $\Delta\rho$ as the editors do.

⁴ The landholding figures are not secure in this case: $24 \frac{1}{2}$ ar. private land was first entered; another hand entered 21 $\frac{1}{2}$ later without erasing 24 $\frac{1}{2}$. (Theodoros is only agent for all of this.) I assume that both figures are to be considered, the 21 $\frac{1}{2}$ being perhaps public land.

HERMOPOLITE LAND REGISTERS

31-40	1	81-90	5
41-50	0	91-100	1
51-60	1	101-110	1

Even though one is probably entitled to regard 104 T/a as a working figure, being the highest paid, let us conservatively use an average of the amounts: 66. Now in A.D. 314, we have prices of wheat of 1 T. 2,000 dr., 1 T., 1,400 dr.. and 2 T. per artaba.⁶ Even if we take the highest, the tax per aroura would be 33 artabas. The figure is simply absurd. Our next attested wheat price is not until 338, but vegetable seed for future delivery is 7 T. per artaba in 326 (a year after Sijpesteijn and Worp's latest possible date for F): 66 T/a would mean 9.4 art. of seed per aroura. Vegetable seed is more valuable than wheat: once again we have an absurdity. Very little land in Egypt *produced* as much as 10 artabas per aroura, let alone could pay taxes of this amount.⁷ In 338, wheat was 24 T. per artaba: 2.75 art./ar. therefore (the maximum, 104, would give 4.33 art./ar.). This is still a bit too high, even if the rates of P. Cair. Isid. 11 had increased from the 1/2 art. per aroura of private land (most of the land cited above is private land) plus a 10 per cent charge (i.e. total of .55 art./ar.).8 In 346, barley cost 30 T./art. Barley was valued relative to wheat at a ratio of 13:24 in 338; a similar ratio would give a wheat price of 55 T.+ for wheat in 346. We would arrive at taxes of 1.2 art./ar. average (about 1.9 in the case of the 104). These figures are credible as taxes. We may, despite all the approximate character of the calculations, take it as demonstrated that a date after ca 340 is necessary. How much later is hard to say, since one could plausibly argue that the taxes in question may be only a small fraction of the total due. All the same, it seems unlikely that a date as late as the 370's is possible, at a time when barley was worth ca 900 T./art.

2. Church Officials

The land registers attest, among the host of titles and occupations, bishops, presbyteroi, and a deacon. These are clearly the titles of a developed church hierarchy. From this Sijpesteijn and Worp conclude, rightly in my opinion, that the text must have been written after the end of the persecutions (311 or 313, they say). Since the titles appear in both registers, and the registers cannot come from the same year, one must

7 Even a price 50 per cent higher (to reflect the fact that a loan repaid in kind is involved, cf. GRBS 18 [1977] 81-90), 10.5 talents, would mean over 6 art. of seed per aroura.

8 See Cd^*E 52 (1977) 322-36 for the rates of land taxes.

⁶ For this and other prices quoted here, see ZPE 24 (1977) 116-18.

suppose that 313 is the date to be considered: Galerius' Edict of Tolerance was suspended after six months by Maximinus Daia, and it was Maximinus who ruled Egypt at this time.⁹In fact, Constantine and Licinius' Edict cannot have had effect in Egypt before that province fell into their hands after the death of Maximinus (the first example of a date reflecting their sovereignty is *P. Cair. Isid.* 103, of 13.ix.313).¹⁰ As the brief flurry of toleration which may have followed Galerius' Edict is scarcely long enough to produce the two land registers and the conditions they reflect, they must come after the taking of Egypt by Licinius.

It is perhaps worth considering the nature of the evidence a bit further. There is certainly some evidence of Christians, even in official texts, before 313; it has been collected, along with the rest of the early fourth-century documentation, in a recent article by E.A. Judge and S.R. Pickering.¹¹ Of this evidence, however, most is irrelevant to the case of the land registers, being private letters and other texts which do not reflect official tolerance of Christianity. Judge and Pickering's category D, in fact, consists essentially of documents reflecting one aspect or another of the persecution of Christians. Even the appearance of a church in an Oxyrhynchite list of street wardens (*P.Oxy.* I 43 verso: 295 or soon after) tells us little about the status of the Christians themselves.

The phenomenon we are dealing with, however, is the use by official recordkeepers of church titles as an official means of designating a taxpayer, of distinguishing him in the tax rolls. The state in effect recognizes the occupation of the person as it would that of a weaver or a military veteran. The physical existence of a church might well be noted in a register even where the government disapproved of it; after all, it was there. But the government would not systematically use the church titles as a means of identifying persons without prejudice until such time as toleration was a fact. The *terminus post quem* of 313 therefore seems secure.

There is in fact only one other register of anything like a similar character from this period, namely the list of real property in Panopolis preserved in Berlin and Geneva and fully published by Z. Borkowski in *P. Berl. Bork*. Several deacons are mentioned in this text (and one of the buildings mentioned is a church). That the text dated after 298 was demonstrated by J. D. Thomas in *ZPE* 6 (1970) 177-80 on the basis of V. Martin's preliminary publication of the Geneva fragments, and confirmed

⁹ See E. Stein, *Histoire du Bas-Empire* I (Paris-Bruges 1959, repr. Amsterdam 1968) 88.

¹⁰ Stein (supra, n.9) 92-93; cf. CSBE 106-07 s.a. 313; this is the earliest date by regnal formula of the new sovereigns as well.

^{11 &}quot;Papyrus Documentation of Church and Community in Egypt to the Mid-Fourth Century," *Jahrbuch für Antike und Christentum* 20 (1977) 47–71.

with further arguments by H. C. Youtie in ZPE 7 (1971) 170-71 (=Scriptiunculae II 978-80). A terminus ante quem, however, is elusive: there are two persons in *P.Berl.Bork*. who also appear in the register *P.Panop*. 14 (=SB XII 10981), but the latter is itself undated, and only an approximate date can be assigned to it on the basis of the activity of one Pasnos son of Alopex, who is attested between 329 and 355 elsewhere. It seems likely that the Cologne register must fall in this period, plus or minus a few years; but of course considerable leeway would still exist for *P.Berl.Bork*. Youtie judged that the hand of the papyrus was earlier rather than later within the available range, and Borkowski (*P.Berl.Bork.*, p.13) thought it unlikely that the hand would date from after about 330.

In sum, it appears likely that *P. Berl. Bork.* was drafted during the period before 330, but probably not a great deal before it. There is certainly no reason to place it before 315. On the other hand, it does not seem likely that more than one generation had passed since the drafting of *P. Panop. Beatty* 1, i.e. A.D. 298.

The earliest mention of ecclesiastical titles in any context connected with officialdom, other than the registers, is *P.Col.* VII 171 (=*P. Coll. Youtie* II 77), a petition of A.D. 324 from the Aurelius Isidoros archive, in which a deacon and a monk are mentioned.¹²

In sum, it is very unlikely that either of the Hermopolite registers could date before A.D. 314, and a more prudent assessment of the development of state acceptance of ecclesiastical terminology in public documents, based on the relatively small existing evidence from dates before 330, suggests that a date much before 320 is not likely; 315 must in any case be a practical *terminus post quem* for G, and F must be later still.

3. Prosopography

I have mentioned above the list of possible identifications of persons recorded in the land registers with those known from other Hermopolite documents. Limiting ourselves to those with some exact date or exactly defined range, we found that the second half of the fourth century provided most of the examples. The list given by Sijpesteijn and Worp does, however, include a few identifications which though not exactly dated point to the earlier part of the century.¹³ Any one of these identifications may be faulty, since many of the names in question are common, and any single identification may—as the editors say—rest on the identity of name of a grandfather and grandson or other members of the same family.

12 Cf. E. A. Judge, Jahrbuch für Antike und Christentum 20 (1977) 72-89.

13 The connections are cited in the list on p.19 of *P.Herm.Landl*. Cf. also p.122, n.6 end. Worp tells me that two or three others occur in still unpublished Vienna texts.

Nonetheless, the overall range—from the first decade of the century to the last—is very wide, and short of a massive discounting of evidence, one can reconcile these indications only by supposing a date in the middle of the century. When the Hermopolite propsopography which Sijpesteijn and Worp have undertaken to compile is completed, our chances of clarifying this situation may be improved. One indication which for me points to a later date than the editors think is the fact that identifications between the two early registers *P. Flor.* I 64 and *SPP* V 120 (Appendix II) are so few.

The one prosopographical argument to which Sijpesteijn and Worp give real weight, however, is that already mentioned concerning Amazonios, the wealthy landowner in F, whom they identify with the father of the well-known Aurelia Charite. On the basis of a detailed argument, they conclude that Amazonios was certainly dead by 325, when he is referred to as $\gamma \epsilon \nu \delta \mu \epsilon \nu o s \beta \sigma \nu \lambda \epsilon \nu \tau \eta s$ (hence, they argue, deceased¹⁴), and probably already by August-September, 316, the date which they give to *P. Vindob*. Inv. G 16723, an unpublished lease of a pottery works addressed to the heirs of Amaz(on)ios in Thoth of a fifth indiction.¹⁵ If the Amazonios of the lists is to be identified with the father of Charite, a fairly firm *terminus ante quem* is thus provided.

Another Vienna papyrus from the same find as the Adelphios archive (cf. P.Herm.Landl., pp. 17-18), also still unpublished, is a fragmentary document, perhaps part of an official letter or a petition quoting one, dated by the consuls of 314 (no month or day is given). It mentions an 'A $\mu\alpha\zeta_0\nu$ iov $o\dot{v}\sigma(\alpha,which ought to refer to the entirety of the estate of a deceased man$ named Amazonios. A mention of $\pi\alpha i\delta\omega\nu$ may also suggest that the father is dead. There is nothing inherently improbable in this: in fact, this Amazonios never appears living in the documents belonging to the archives of his daughter. Her own activity seems to span about 325 to 348, so far as the extant documents indicate. But if Amazonios was dead already in 314, it is not very likely that he can be the same as the Amazonios of the land registers, for whom a date near 320 would seem to be an absolute terminus post quem (remembering that he appears in the later of the two, F). In the face of this problem, it seems by no means assured that the two Amazonii are in fact the same, and if it is admitted that the Amazonios in the land register may be of another generation, perhaps son or other relative of

¹⁴ See the discussion by Worp in ZPE 30 (1978) 239-41. I cannot subscribe to all of the remarks there, notably about the positive attitude toward curial status which Worp assumes was normal. Quite the contrary is commonly attested, both in imperial enactments (e.g. C. Th. 12.1.5; 12.1.11, etc.) and in papyri (e.g. P.Oxy. 1X 1204).

¹⁵ The alternative of 331/2 cannot be excluded, but the distribution of the Adelphios archive does, as Sijpesteijn and Worp point out, point on the whole to a date rather earlier than this, as does the terminology used for the dating phrase.

Charite, then the only real prosopographical argument for an early date for the registers is removed. A date for the registers within the actually known range of dates for Charite (325-348), on the other hand, is in perfect accord with the ecclesiastical titles, and it can be reconciled with the argument from the amounts in F 24-42 with no difficulty.¹⁶

4. Conclusions

Before proceeding to summarize the conclusion, it may be as well to dispose of two objections which might be raised.

(1) It could be argued that F 24-42 were written long after the body of the register, and that the land register proper could be considerably earlier. In my view this interpretation is excluded by the almost complete identity of the names with those in the land register. If several decades had intervened, many of the taxpayers would have been successors to those alive earlier, and the proportion of identical names would be lower, probably reflecting a change of at least a quarter in each decade.¹⁷

(2) It might also be argued that while F dated from the early 340's, G was considerably earlier, rather than only a few years earlier (i.e., G might date as early as 315). This argument would, however, be pointless, as its sole purpose would be to save the identification of Amazonios, who appears only in F, the later register; and it would not accomplish this purpose. Nor does it seem likely of itself. The reader who looks at the cross-references painstakingly inserted by Sijpesteijn and Worp into the edition of G will see that something like 75 per cent of the entries are paralleled in F, a fact which indicates that no great difference in years exists between them (no more, let us say, than a decade).

16 The latest date for Charite seems to be *CPR* I 19a (p.59). Sijpesteijn and Worp (p.17) seek to show that 318 is the most likely date for this text, dated to a 7th indiction. In fact this date is impossible: Charite borrows 640 talents for a month against $i\pi \alpha \lambda \lambda \alpha \gamma \mu \alpha$ of a property described as $\tau \eta \nu \epsilon \lambda \theta 0 \hat{v} \sigma \alpha \nu \epsilon \hat{c}_S \mu \hat{e} \dot{\alpha} \pi \partial \kappa \lambda \eta \rho 0 \nu \rho \mu (\alpha S \tau 0 \hat{v} \dot{\alpha} \sigma \gamma \epsilon \nu \rho \mu \epsilon \nu \sigma \omega \tau \alpha \tau \rho \delta \hat{c} \pi \alpha \nu \lambda \iota \nu \dot{\epsilon} \pi' \dot{\alpha} \mu \phi \delta \delta 0 \nu \Phi \rho 0 \nu \rho (0. \Lambda \iota \beta \delta S \dot{\epsilon} \nu \dot{\phi} \dot{\epsilon} \xi \delta \delta \rho \alpha \kappa \alpha \lambda \kappa \alpha \tau \dot{\alpha} \gamma \epsilon \nu 0 (1. \kappa \alpha \tau \dot{\alpha} \gamma \alpha \iota \sigma \nu) \kappa \alpha \lambda \chi \rho \tau 0 \theta \eta \kappa \eta \kappa \alpha \lambda \phi \rho \epsilon \alpha \tau 0 (S) \dot{\epsilon} \xi \delta \pi \tau \eta S \pi \lambda (\nu \theta o \nu) ("the farm building which came to me from the$ inheritance of my deceased father, in the quarter of West Fort, containing a porch andbasement and barn and well of baked brick"). This is a relatively rustic farm building, by nomeans a palace. We lack house prices from the first two decades of the century, but in 337 and339 part of a house rented for 25 T. per year in Panopolis (*P. Panop.*12 and 13). In 345, a houseat Oxyrhynchos rented for 90 T. per annum (*P. Harr.*82). These figures are in line with acapital valuation of 640 T. for a farm building (one should remember that the building maywell be worth*more*than the 640 T. it is pledged for, but certainly not less). A farm buildingcould scarcely have been valued at 640 T. 30 years earlier. Indiction 7, therefore, is surely348/9, and Choiak is December, 348.

17 Any given age class of the Theban peasantry studied in *Death and Taxes* (O.Ont. Mus. 1) had their numbers cut in half every decade. Hermopolite metropolitan landowners presumably did better, but probably not more than twice as well.

To summarize: The amounts of money recorded in F 24-42 are sufficiently high to make it clear that as tax payments they cannot reflect any period before about 340. The presence of ecclesiastical titles points at least to a date of 315 or later, and more probably to the 320's or later. In the face of these two arguments, any contradictory prosopographical arguments about dating the land registers must be based on a firm foundation; the identification of the Amazonios son of Euthalios found in F with Amazonios the father of Aurelia Charite, however, is in no way certain: Charite's father was dead probably by 314, and in fact he is never attested alive in our documentation. The currency and the ecclesiastical titles of F and G are completely incompatible with what we know about the dates of Charite's father.

The sum of the other prosopographical arguments, none individually of probative value, suggests that a date either very early in the century or very late would be inherently unlikely. If 340 is a *terminus post quem* for F, probably it is still not very much after that time, at all events not far into the second half of the century. G is perhaps five to ten years earlier than F; the smaller figure seems to me the more likely.¹⁸

COLUMBIA UNIVERSITY

ROGER S. BAGNALL

18 I must record that two drafts of this article have been read by Dr. Worp and that my discussion owes much to our extensive correspondence and numerous conversations on this subject, as well as to his kindness in sharing with me much of the unpublished material pertinent to the subject. That I take this opportunity to express my thanks to him must not, of course, be taken to mean that he is persuaded of the correctness of my arguments.

168