The Development of Army Administration in

the Roman Republic

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Contents

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List of Figures

List of Tables

Abbreviations

All abbreviations of ancient texts are given in the form provided by the *Oxford Classical Dictionary*[4].

CIL – *Corpus Inscriptionum Latinarum* (1863-), Berlin.

FRHist - Cornell, T. J. *et al*. (edd.) (2013) *The Fragments of the Roman Historians: Vols 1-3,* Oxford.

LSJ - Liddell, H. D., Scott, R. & Jones, H. S. (1925) *A Greek-English Lexicon: A New Edition*, Oxford.

OLD - Glare, P. G. W. (ed.) (1982) *Oxford Latin Dictionary*, Oxford.

RMR - Fink, R. O. (1971) *Roman Military Records on Papyrus*, London.

Tab. Vind. – Bowman, A. K. & Thomas, J. D. (1994) *The Vindolanda Writing-Tablets (Tabulae Vindolandenses I-III)*, London.

Abstract

The study of Roman military administration has largely been limited to the Prinicipate following the discovery of documents at Vindolanda and Dura-Europos. The origin of this administration is either attributed to Augustus' military reforms or considered older but irrecoverable based on a perceived lack of evidence. This thesis aims to demonstrate that, far from irrecoverable, it is possible to reconstruct the development of a relatively complex and well-structured bureaucratic system supporting the army during the Middle Republic. This bureaucracy developed in parallel with the military as the scale and scope of Rome's wars increased during the period, and is reflected in the evolution of an administrative complex on the south-eastern slope of the Capitol.

It is argued that in Rome and within the legion detailed records were kept and, within reason, every effort was made to keep them as accurate as possible. The Capitol functioned as the administrative hub, where census declarations and the census list, stored in the *atrium Libertatis*, served as the central authority for military records. Other military documents kept in the *aerarium Saturni* provided support. Lists such as the *tabulae iuniorum* were created from the census records, with exemptions and served terms noted. From these, legion lists with the same details could be created by military tribunes or *scribae* at the *dilectus*, the military recruitment levy, in the *area Capitolina*. One copy of this list was taken with the legion, and from 204 BC another was left in Rome. These parallel documents enabled a degree of cooperation between the administrative authorities within the legions and at Rome. The legion lists allowed commanders (or their subordinates) to act as devolved satellite bureaucracies, with more exact information from being on the spot. Frequent letters and embassies from the legions to the senate meant that these satellites could communicate not only their tactical position but also administrative information.

In the field, legion lists provided commanders with a record of their men. Additional information on rank was added once the legion was organised. Using this list the quaestor calculated the pay for each individual, marking the separate deductions to be made from each soldier. Commanders took care to keep the record of their numbers accurate, noting casualties in as much detail as time and injuries allowed. This information was transmitted to the senate in order to keep the legions up to strength, not only by replacing casualties but also those who had served the ideal maximum term of six years. Overly long service was for the most part thus avoided. It appears that every effort was made to keep the records as up-to-date as possible, but it was recognised that errors could occur. The *lustra* conducted by new generals provided the opportunity to correct any omissions or mistakes as well as ritually purifying the army under a new commander. The emergency levy circumvented any errors in the census so that Rome could mobilise effectively in a crisis. It was not Augustan invention but these Mid-Republican developments which presaged the bureaucratic system known under the Principate.

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Elizabeth Pearson holds a first class BA (Hons) Ancient History and a distinction in MA Classics and Ancient History from the University of Manchester. Her research has been largely focused on the Roman Republic, particularly military aspects; Elizabeth's MA thesis was on the social, economic and political context in which the military mutiny took place in 342BC. She has presented on these topics at several national and international conferences, including the Annual Meeting of Postgraduates in Ancient History and the International Ancient Warfare Conference.

I: Introduction

The study of Roman military administration has been greatly aided in recent decades by the continuing discovery of military documents in excavations at Vindolanda, a fort located on the Stanegate, around a mile south of, and predating, Hadrian's Wall. Among the discoveries are military documents, dating to the late first and early second centuries AD, which seem to concern provisioning, accounting and the composition and disposition of units and their members.[1] The papyri discovered earlier at Dura-Europos dealing primarily with the *cohors XX Palmyrenorum* also cover issues of provision, pay and deployment.[2] These documents have been dealt with in detail by a number of scholars, allowing much more to be learnt both about the functioning of the army as a whole and about the lives of soldiers in the Principate.[3] Overall, they support the picture put forward by Vegetius in his fourth-century AD *De re militari* of an army made stronger and more effective by its complex bureaucracy;[4] the geographical spread of the documents allows Vegetius' theoretical universal presentation to be nuanced and the real situation in the field to be better understood.

Guided by the extant documents, discussion of Roman military administration has been largely limited to the first century BC and the Principate, with little written concerning the origins and development of military bureaucracy.[5] This tendency tallies with the wider study of the Roman army. In Keppie's *The Making of the Roman Army* a single chapter deals with the army from the founding of Rome to

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[1] E.g. especially *Tab. Vind.* 2.127-177.
[2] *RMR passim.*
[3] E.g. Watson (1956); Syme (1959); Gilliam (1962); Davies (1967); Fink (1971); Bowman (1974), (1984); Birley (1994); Bowman & Thomas (1991); Wilkes (ed.) (2003); Phang (2007).
[4] Vegetius, *Mil.* 2.19f.
[5] Unless otherwise stated, all dates are BC.

Marius, whereas the Marian reforms receive a whole chapter to themselves.[6] This brevity of treatment highlights a gap which requires further research. With regard to military administration, Wilkes goes so far as to state that the 'key stages […] are evident in the long reign of […] Augustus […], notably in the creation of a central resource of statistics and information based on the compilation of written documents forwarded from all over the empire to a central bureau in the capital'.[7] Such an interpretation is questionable at best. Wilkes creates a false dichotomy, suggesting that Rome went almost overnight from a position of short lived seasonal campaigns with no administration in the Republic to a complex centralised system governing the long standing, far distant legions of the Principate. The record of Rome's military achievements in the Republic, growing from an Italian *polis* into the dominant Mediterranean power, is implausible without some type of administrative backing.

Indeed, the problems to be expected from a poorly administered army operating at length away from its hub, such as mutinies over a failure to arrange payment, food supply and overly long service, are almost non-existent in the history of the Early and Middle Republic. This is all the more significant because such risings are precisely the type of unusual event which ordinarily attracted the attention of ancient writers. The overall lack of mutinies in the extant material suggests they were not occurring. Even allowing for the gaps in the ancient sources, the mutiny at Italica in 205 stands out as an irregularity.[8] Moreover, the relative ease with which Scipio was able to resolve the problems and their failure to reappear indicates an administrative system which ordinarily functioned well. The later emphasis on a limit of

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[6] Keppie (1984) 14-56.
[7] Wilkes (2001) 32.
[8] Livy 28.24.5-25.15; Appian, *Hisp.* 34-6.

approximately six years continuous service in Spain reflects an administration well aware of potential problems and bureaucratically organised enough to avoid them.[9] It was only with the change in military structures brought about by the collapsing political system in the Late Republic that mutiny became more common.[10] This indicates that the existing mechanisms failed to withstand these new pressures; Augustus' administrative 'reforms' could be viewed as a reinstatement of a lapsed organisation.

Further, military administration in the Republic is explicitly attested. The census' origin in the regal period is explicitly described as a military manpower record.[11] The Republic's administration was not necessarily the same as the Principate's, but it is unacceptable to assume Roman military bureaucracy to be Augustus' invention. In order to address these issues, it is necessary to examine, independently from later evidence, the administrative tools which could have been available in the Republic, how they were implemented and who was responsible for their management. The Middle Republic provides a useful period to investigate in this context, as it is when small scale local campaigns gave way to extended wars overseas. Focusing solely on this period avoids prejudicing the work with expectations concerning the documentation types which it would be ideal to find in order to argue for continuous development from the beginning of Roman military administration to the well-known examples from the Principate.

Other modern scholars provide a more balanced assessment than Wilkes regarding the origins of military administration. Most recently, in his discussion of military

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[9] See II:iii.
[10] Messer's catalogue of mutinies counts more than 30 from the Jurgurthine War to the end of the Republic, Messer (1920) 170-3.
[11] Livy 1.44.

logistics, Roth argues that it was the development of central (in Rome) and local (in the legion) administration which allowed armies to operate away from Rome for extended periods. He dates this development to the third century when Rome began to engage in longer and more distant wars.[12] However, as his study focuses on logistical considerations, he does not suggest the possible nature of these records. Nonetheless, Roth highlights that the historical record as it stands indicates the necessity of administration supporting the successful operation of the legions, emphasising the need for further study.

One suggestion concerning the nature of Republican administration has been made. In the introduction to his catalogue of military papyri from Dura-Europos, Fink acknowledges that this administration's development must have begun during the Republic. Fink argues that the census was the beginning of military administration, noting the similarity of census declarations to early military records from the Principate. He suggests that for the legions to operate, a legion roster, containing the different lines of *velites*, *hastati*, *principes* and *triarii*, must have been necessary and carried with the army before being discarded when the legion was demobilised at the end of a campaign. Fink suggests that these rosters developed into a more complicated record system sometime in the second century as armies spent longer and longer in the field. Fink does not provide any evidence for these suggestions beyond reasonable conjecture,[13] but he, with Roth, thus demonstrates that the origins and development of military administration are areas which require further detailed study.

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[12] Roth (1999) 244-5.
[13] Fink (1971) 6-7.

The aim of this thesis is to contribute to the study of Roman military administration by demonstrating that it is possible to see the operation of military administration and its development in some detail prior to Augustus. This development can be particularly noted through the Middle Republic, forced onwards more quickly by the new scale and scope of military operations brought about by the pressures of the Hannibalic War. Many of the features of the military bureaucracy, both before and after the war, are revealed in the changes which took place during or in the aftermath of the Second Punic War. The thesis will therefore address several areas which have received little detailed attention in the past due to a perceived lack of evidence. The discussion will remedy the lack, demonstrating that careful examination of the ancient literary sources yields a great deal of material concerning military administration despite rarely directly addressing the subject. Combining this evidence with archaeological and topographical material and a less traditional, more scientific, methodologically rigorous approach, where appropriate, allows a clearer interpretation.

For the purposes of this discussion, the Middle Republic is defined roughly as 338-146.[14] As well as encompassing the crucial evidence from the Hannibalic War, this limit is imposed in large part by the source material. Polybius and Livy provide most of the evidence, often in the form of passing references to features with which they assume their audiences are reasonably familiar. In combination, these two authors provide a continuous narrative for the vast majority of the period. In addition, an important reason for ending the period in the mid-second century is to avoid the issues brought up by discussion of the Gracchi, the 'reforms of Marius'

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[14] This corresponds roughly with Flower's ((2010) 33) first and second 'Republics of the *nobiles*'. While an interesting approach, this author does not entirely agree with her divisions and they will not be used here.

and the growth of warlords. While the military repercussions of these events are certainly worthy of discussion, and are more directly connected to the army of the Principate as revealed through its extant documentation, they represent a later stage of the development of military administration. The aim here is to examine the earlier stages of military documentation in order to understand its mechanisms and methods. This requires a discussion of the army before it reached its 'professional', largely uniform state sometime in the Late Republic. The army of the Principate was the result of extended development over several centuries; it follows that the administration which supported it developed likewise.

It is therefore necessary to establish the nature of the Mid-Republican army before continuing. The army under discussion was for the most part the manipular army described by Polybius.[15] It was composed of three lines of heavy infantry, the *hastati*, the *principes* (both in maniples of 120) and the more experienced *triarii* (in maniples of 60) in reserve. They were supported by the light infantry, the *velites*, and light cavalry. The tactics employed by this legion are described by Livy and need not be repeated here.[16] From the Spanish campaigns in the Hannibalic War onwards both Polybius and Livy refer to the use of cohorts, a unit of three maniples and a complement of *velites*.[17] Scholarly opinion is agreed that these mentions are not anachronistic; rather, they demonstrate the development of a new tactical form to meet situations demanding more manoeuvrability than the traditional manipular formation.[18] The evidence suggests that the main organisational form of the legion remained manipular throughout the period, with the cohort used as necessary. One

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[15] Polybius 6.21.6-23.16; cf. Gilliver (1999); Dobson (2008) 47-8.
[16] Livy 8.8.3-14; cf. e.g. Keppie (1984) 33-5; Oakley (1998) 451-66; Gilliver (1999) 15f; Potter (2004) 67-73; Lendon (2005) 178f; Koon (2010) 24; Taylor (2014); Le Bohec (2015) 116.
[17] Livy 25.39.1 (210); Polybius 11.23.1, 11.33.1 (206).
[18] Gilliver (1999) 18-22; Dobson (2008) 59 following Bell (1965) 415f.

of the final extant mentions of the manipular legion is given by Sallust in the context

of the Jugurthine War. He demonstrates the ease with which the soldiers could

change their formation from one to the other.[19] Sallust is doubly useful here,

demonstrating that the switch from maniples to cohorts could be made on an *ad hoc*

basis as well as indicating that the cohortal legion was a later development than the

period covered by this discussion.

The allied contingent of the Roman army, often doubling the number of men, will

not be discussed here. Instead, the study focuses on citizens. In principle, it appears

that Rome relied on local systems to provide the allied units required, as Polybius

implied in his discussion of the levy. He simply states that the allies were told the

numbers required and where and when to assemble the troops with their own

commander and paymaster.[20] Livy's numerous references to senatorial demands

from Rome's allies accord with this impression.[21] It is possible that Rome assumed

that allied systems were very similar to their own. Certainly neither Livy nor

Polybius gave a surviving description of the process with the exception of Livy on

the Samnite Linen Legion.[22] As an extraordinary process, it was noteworthy,

although the basics of the process are not unfamiliar when compared with Polybius'

description of the Roman levy. However, the issue here is Rome's organisation of

her citizens, so no more will be said on the subject of the allies.

Despite attempting to involve more scientific elements, the discussion is heavily

reliant on the literary sources. Thus it is worth briefly examining the merits and

problems inherent in dealing with this material. Polybius is a key ancient source for

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[19] Sallust, *Iug.* 51.3 with 49.6.
[20] Polybius 6.20.4-5.
[21] E.g. Livy 21.17.3, 22.57.11, 32.8.2,6-7, 33.26.4, 40.1.5, 41.5.4.
[22] Livy 10.38.1-13, especially 1-5.

this study.[23] His work is particularly valuable for several reasons. Firstly, as a contemporary with the latter end of the period and an experienced military man, even when his report is not first hand, it is transmitted through the lens of an individual familiar with the political and military realities of the time. Further, his close relationship with several leading Roman families, notably the Aemilii and Scipiones, provided him with a perspective from the heart of Rome.[24] Secondly, Polybius' stated intention was to write for an audience which he considered unfamiliar with Roman institutions and practices.[25] This makes Polybius' account even more valuable as he describes features which Roman authors did not. The military digression in book 6, detailing the recruitment process from beginning to end, the organisation of the legions and of the camp, is extremely important for understanding the operation and mechanisms of military administration in the Middle Republic.[26]

On the other hand, by his own admission Polybius' descriptions do not always cover the full complexity of the institutions described.[27] This can be seen in his failure to mention the cohort in his description of the army. Bell suggests that this was due to Polybius' personal experience. In 151/0 Polybius accompanied Scipio to Spain, where the cohort was most used in the Middle Republic, but that year's campaign was dominated by siege warfare and thus provided little demonstration of the cohort's tactical value. Coupled with Polybius' Greek military background, this led him to underestimate the cohort and thus not describe its use.[28] Moreover, book 6

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[23] For a more detailed discussion with bibliography of the value of Polybius as a military historian see II:i.
[24] Polybius 31.24.
[25] Polybius 6.2.3.
[26] Polybius 6.19-42.
[27] Polybius 6.11.3-6.
[28] Bell (1965) 414; Appian, *Hisp.* 51-5.

was probably written before Polybius' visit to Spain.[29] Omitting the cohort

highlights that Polybius was not infallible. Nonetheless, the descriptions provide

more detail than could otherwise be extracted from the extant ancient material.

Finally, Polybius' approach to writing history adds to his reliability as a source.

Unlike many native Roman historians, including Livy, Polybius was concerned with

validating the information he recorded. Polybius identified three key areas of

historical endeavour: personal experience, questioning of eyewitnesses and the study

and collation of written works. The first two took precedence over the third.[30]

Polybius travelled to become personally acquainted with locations, using the

opportunity to interview local witnesses to events of interest.[31] He also consulted

inscriptions rather than relying solely on information in other histories.[32] Overall, he

displayed a concern for primary evidence more reminiscent of modern 'scientific'

scholarship than the work of his contemporaries. This concern does not rule out

mistakes or misunderstandings, but does suggest that his work has more historical

rigour than might be found elsewhere in the works of ancient authors.

The work of Livy, the other main source for this study, is one of those with less

concern for authenticating detail.[33] Livy wrote his history during the Augustan

period, reflecting the literary preferences of the time. Unlike Polybius, Livy's theme

and motivation for writing were not an explanation of Rome's institutions and rise

to dominance. In the preface, Livy sets out the moral purpose of his work. It will

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[29] Rawson (1971) 13-4; Walbank (1972) 134; Walbank (2002b) 278 n.4; Sage (2008) 122.
[30] Polybius 12.25e.
[31] Polybius 3.59, 12.28a.5-6, 35.6.3-4.
[32] E.g. Polybius 3.21-26.
[33] For a more detailed discussion of Livy's use of other historians, particularly Valerius Antias, see IV:i. On Livy and his methods cf. e.g. Walsh (1970); Briscoe (1971); Burck (1971); Walbank (1971); Luce (1977); Miles (1995); Jaeger (1997); Feldherr (1998); Chaplin (2000); Chaplin & Kraus (edd.) (2009), especially Briscoe (2009), Oakley (2009) (updating Oakley (1997)) and Tränkle (2009); Levene (2010).

trace Rome's development in order to demonstrate to the reader positive and

negative *exempla* of behaviour and attitudes.[34] However, this didactic purpose does

not mean that Livy's work has no historical value. As Walsh demonstrates, Livy

wished to write truthful history in a worthy literary setting, but had both more skill

and a preference for well-formed prose over historical research. Nonetheless, even

through a moral lens, his subject was still Rome's history.[35] His approach was not

the same as Polybius', but it does not render his work unreliable.

However, there is little evidence that Livy ever consulted primary material directly.

For example, Livy chose to follow another historian over Polybius concerning the

numbers Hannibal brought to Italy, despite Polybius having gathered the information

from Hannibal's own inscription.[36] Admittedly, the historian in question, L. Cincius

Alimentus, claimed to have the information from Hannibal himself,[37] but Livy does

not even mention the inscription as an authority with which to verify the account.

Livy relied on the works of preceding historians. His work reveals that he was

widely read, but he seems to have followed one narrative for stretches, only

introducing others to add detail or highlight when accounts contradicted.

Nevertheless, the resulting account still has historical value and Livy's method was

not entirely uncritical. He frequently gives the reports of two or more historians,

demonstrating his awareness of contradictions in his sources.[38] Often Livy offers no

opinion about which account is the most reliable, but including the divergent

material allows readers to consider the problem for themselves. In many ways, this

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[34] Livy Pr.
[35] Walsh (1970) 287; Oakley (1997) 3, 114-7.
[36] Polybius 3.56; Livy 21.38.2-5. A notable exception to this is his visit to the tomb of Scipio Africanus, Livy 39.56.3. Cf. Luce (1977) 101.
[37] *FRHist* 2 F5,cf. *FRHist* III:53-5.
[38] E.g. Livy 22.36.1-5.

is more useful to the historian than Livy giving his judgment without mentioning any difficulties. It reveals that the tradition was varied and emphasises the care required when considering the evidence. Moreover, these fragments give an insight, albeit brief, into the works which Livy used, revealing not only Livy's version of events but those in works now lost. Even when it is impossible to come to a judgment due to a lack of other evidence, knowledge that the problem exists is more valuable than if Livy had simply brushed over it.

On the other hand, the occasions on which Livy does not give variant traditions demonstrates that he was capable of reading with a critical eye. It is possible that for the majority of the period covered by his extant books Livy's sources were in agreement, but even small differences between the parallel accounts of Polybius and Livy demonstrate that this is unlikely. Therefore, Livy made decisions about what to include in his work and what to omit. This may have been done with more of an eye to his literary than historical needs, but nonetheless demonstrates discrimination. Moreover, the annalistic structure of the majority of the work, taking events year by year, indicates that, while Livy's purpose may have been moral, his framework was historical. For his *exempla* to have most effect, they required a historical context. As a result, although there are weaknesses in Livy's approach from a modern (and Polybian) historical perspective, his work remains a useful source, not least as the only unbroken narrative for 218-167. It is a literary whole, not just an amalgam of earlier material. Like any ancient source, using the evidence presented is not straightforward, but Livy's work has a significant historical value.

Additional evidence is found scattered through the works of later authors. With the exception of Cicero and Varro, all these authors wrote during the Principate. However, despite their greater distance from the period under discussion, their works

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give an insight into events not found in Polybius and Livy. The later sources provide

access to earlier, no longer extant, material both directly and indirectly; like Livy,

they relied on earlier works to provide their material. For example, Appian cites as a

source for his *Spanish Wars* Rutilius Rufus, a contemporary to some of the events

narrated.[39] It is possible that Livy also used Rufus in the missing books. Further,

Appian does not seem to have used either Livy or Polybius as his source for the

Hannibalic War.[40] In combination, these two factors suggest that Appian's accounts

have some independence from those of Livy and Polybius. Therefore his work can

be used to supplement and reinforce (or undermine) the narratives provided by the

other two authors. Appian's sources were probably those also used by Livy, thus his

work is not entirely independent.[41] Nevertheless, Livy and Appian used their

material differently so Appian's work can be used as a balance to the former's

account.

Imperial sources must be used with care. It is not always clear that the authors

understood the world they described, or understood precisely what their sources

meant. The world of the second century AD was far removed from the second

century BC. As Richardson states well, 'Appian writes with an intelligent and

thoughtful appreciation of the problems of empire, but from a standpoint which

belongs to his own time, rather than that about which he writes'.[42] All historians,

ancient and modern, are influenced by their experience of their own time, however

careful their approach. When applying the works of Imperial writers to the Middle

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[39] Appian, *Hisp.* 88.382. Cf. *FRHist I* 278-81.
[40] Richardson (2000) 4-5.
[41] Richardson (2000) 4-5.
[42] Richardson (2000) 7.

Republic this must be kept in mind. However, as with Livy, the works can still provide useful supplementary information concerning military administration.

The works of so-called 'antiquarians', or those not writing narrative histories, are a different case. Aulus Gellius' *Attic Nights* provides a good example with which to demonstrate this. Gellius was concerned with gathering assorted material to match his themes, leading him to quote directly from different sources. These verbatim transcriptions, ranging from Piso to the military oath of obedience, provide direct access to Republican material which is otherwise lost. It is reasonable to assume that Gellius correctly copied these passages as he often quoted to demonstrate an unusual point of grammar or form of words.[43] Careless transcription would defeat his object. The practice of direct quotation means that any problems concerning Gellius' understanding of the unfamiliar Middle Republic are circumvented. Using the material is not reliant on the interpretation of a later intermediary. In the case of Piso, the problem of a historian's understanding is still present, but the subject is now a Republican, familiar with Republican institutions and their operation even if not always a direct contemporary to events described. In the case of the military oath, even this is not a problem as it is not a description but the object itself.

In addition to the literary evidence, physical evidence will be used to supplement and strengthen the argument. Topographical and demographic methods will be especially prevalent in order to address the more practical elements raised by the discussion of the literary evidence. In particular, topography and demography will be used in combination to approach the question of where the recruitment levy, the *dilectus*, was held (II:iv). This approach has not been used before to the author's

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[43] Baldwin (1975) 86-7; Holford-Strevens (1988) 53, 56; Stevenson (2004) 122, 134-6; *FRHist I* 70; cf. Gellius, *NA* pr. 2.

knowledge; it provides the basis for a more solid discussion of the literary evidence than the speculation to which it was limited previously. Topography will also be used to propose the storage location of the census records (VI:iii), and demography for the operation of the census itself (III:ii).

However, there are limitations to these approaches. The author believes that these are largely negated by using the physical evidence in combination with the literary, but it is worth outlining them here. They will be discussed in more detail as they arise. For topography, the limits are mostly imposed by the state of the archaeology. The nature of the Mid-Republican *forum*, the size and placement of buildings within it, is not fully known. Many of the sites have been rebuilt upon at a later stage, obscuring the view of what was there beforehand. As well as natural redevelopment as need changed, these problems have also been caused by fire damage and Augustus' rebuilding programme.[44] The major excavation of the *forum Romanum* ceased at the Augustan level; despite smaller scale deeper excavations, much evidence of the Middle Republic below this level remains hidden. In addition, ancient notices of rebuilding rarely describe a location. As will be seen with the discussion of the *aerarium Saturni* and the *atrium Libertatis*, ancient authors assumed that their readers would be familiar with these buildings (VI:iii).

The major limitation of the demographic approach is that it is based on a model, the Male West Princeton model life table.[45] This is a model accepted for use for ancient Rome,[46] but is specifically designed for populations about which very little demographic data are known. This study applies the model to the census figures

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[44] *Res Gestae* 19-21.
[45] Coale & Demeny (1983) 107, 110.
[46] Parkin (1992) 80; Saller (1994) 25. See II:iv.

(with alterations as discussed at II:iv). However, as the model is just that, a model, it can only provide an idea of what a plausible demographic situation may have been. It does not provide a definitive answer. This is reflected here by the use of three different models based on Male West in an effort to cover the plausible extremes of the demographic profile of the male citizen population. The models lend a sense of scale to events only described abstractly by ancient authors. It is this scale which allows more detailed conclusions to be drawn about the issues under discussion.

As the discussion progresses, it will become clear that the outline of military administration conjectured by Fink is supported by the evidence, but much more additional detail can be uncovered by close examination. The discussion will demonstrate that despite the lack of extant documentation, a great deal can be understood concerning the paperwork which enumerated Roman manpower and tracked it on campaign. This includes the mechanisms in place in Rome and in the legions themselves, and those responsible for maintaining them. Fink was wrong to imply that the failure of any Mid-Republican documentation to survive renders the administration irrecoverable. Moreover, the development of this bureaucracy in direct response to changes in the scope and scale of Rome's war will be seen, demonstrating the ability and willingness of the state to react to external pressures in order to operate most effectively.

In order to examine the military administration of the Middle Republic it is first necessary to establish what the documents themselves were. The logical place to begin the discussion is with the recruitment of soldiers, the first step in organising the legions (II). This will proceed as a detailed examination of Polybius' description of the levy, taking each passage separately. This allows each of the issues raised, such as location, soldier selection and legion size, to be examined individually.

Investigating each of these elements reveals the requirement for and existence of lists of the liable and the legions there created, as well as demonstrating Rome's flexibility in meeting military challenges appropriately.

As the levy took place in Rome, the next chapter will examine the place of centralised administration in military bureaucracy (III). The need for lists of those liable for military service is established in the first chapter; the census is the place from which such a list would originate, indicating its role in military administration. In order to better understand its role, census declarations will be examined. This will lead to a discussion of the registration of those on campaign, revealing that the census operation was remarkably adept at tracking all male citizens even when unable to attend the censors. Finally, the manpower figures for an emergency levy in 225 will be investigated, demonstrating that despite the complexity of the system revealed by the foregoing discussion, Rome was able to circumvent these complications when the threat made it expedient. Problems of 'red tape' could be avoided to allow an effective, organised response before incorporating these extraordinary events back into the records in order to prevent citizens feeling unduly put upon by military service.

The final area of documentation to examine is that generated on campaign (IV). This area is more difficult to investigate, but is nonetheless vital for a fuller understanding of the bureaucratic mechanisms operating around the Roman army. The discussion will focus on three areas: enumerating the dead, pay accounting, and tactical strength. All three emphasise the importance of legion lists generated at the levy to running the army in the field. The first will demonstrate that legion commanders were able to identify battle losses, those either killed or missing, in some detail. It is probable that these lists could be, and were, sent to Rome with

dispatches, keeping the city abreast of the situation in the field. Discussion of the payroll reveals that a separate record was required for each soldier, as deductions made for items such as replacement equipment were not consistent across even those of the same battle-line. Thirdly, examining the reinforcements, *supplementa*, sent out to forces in the field reveals that Rome also had a reasonable idea of the real strength and disposition of her legions. This was coupled with an awareness in Rome that delays in communication could have resulted in more losses yet to be reported, a problem for which the recruiters endeavoured to compensate. A review of the forces carried out by a new commander ensured that any errors which had arisen in the legion's accounting were rectified.

These three chapters combine to create a complex picture of Rome's bureaucracy. It shows a state fully aware of the benefits of accurate enumeration and working to achieve them. However, a full discussion of military administration in the Middle Republic must also take into account more practical considerations. The physical nature of documentation would have had a profound effect on its use: large, heavy documents would have had a distinct tactical disadvantage to the legion needing to transport them. On the other hand, they needed to be sturdy enough to survive the rigours of a campaign. In Rome, records such as the census did not suffer such rough treatment, but they too needed to survive well until at least the next census period. The storage locations of such documents is also a consideration. The possible volume of documents has an impact on positing buildings, which themselves are not easily identified. The fourth chapter will address these issues, demonstrating that these limitations are not an impediment to the picture of bureaucracy developed in the preceding chapters (V).

Finally, those responsible for creating and managing records will be discussed (VI).

A major potential criticism of this thesis is that Rome was not yet sufficiently literate

in the Middle Republic to support such a complex system.[47] To some extent this is

countered by the existence of this bureaucracy itself: if such an administration was

impossible, it should not be visible in the source material. This chapter will address

the issue of literacy, demonstrating that there is evidence of widespread semi-literacy

by the third century, sufficient for the needs of the majority of the soldiers. More

complex work was limited to the better educated, higher social classes, but such an

education was expected of them, not an exception. Following this, the individuals

responsible in Rome and on campaign for particular parts of the military

administration proposed will be examined. These elements will complete the picture

of a Rome both willing and able to develop her bureaucracy in order to make her

military operations as effective as possible.

It is only once this examination has been completed that the findings will be

compared with the extant documentation. Such a comparison reveals perhaps a

surprising level of continuity given the changes to the nature of the army between the

third century BC and the second century AD and later.

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[47] See VI:i.

II: *Dilectus*

In attempting to uncover a bureaucratic record of military service in the Republican army, the logical place to begin is with the beginning of a citizen-soldier's active service, the *dilectus* (or recruitment levy). The most extended discussion of the *dilectus* occurs in Polybius' military digression in book 6 of his *Histories*.[1] Here Polybius relates the selection and division of military tribunes, the maximum service terms, the minimum term required for political office, the selection of tribes and the division of men into legions. Following this he narrates the administering of the oath and the setting of a day for convening. Next the lines into which the army was organised and arms are discussed as well as officer selection. Finally, the men were instructed to arm and given the day on which to attend the consul. This chapter will reveal the theoretical necessity of written administration within the military levy alongside the historical demonstrations of bureaucracy in action. Beginning with a detailed step-by-step examination of Polybius' levy, the focus will then broaden to include aspects apparently missing from Polybius' account to create an integrated picture of the Mid-Republican *dilectus* and the integral role of administrative record within it.

i: Polybius as a military historian

Before this can be done, however, it is necessary to establish the authority of Polybius' account. It is generally accepted that book 6 was published in the late 160s or early 150s,[2] while Polybius was one of a thousand Greek hostages held in Italy. Of the thousand, Polybius alone was held in Rome.[3] He probably stayed with

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[1] Polybius 6.19-26.
[2] Rawson (1971) 13-14; Walbank (1972) 134, (2002b) 278 n.4; Sage (2008) 122.
[3] Polybius 30.13; Pausanias 7.10.11; Livy 45.31.9. Cf. Erskine (2012) 17.

a senatorial family, and had a close relationship with the Aemilii and Scipiones through P. Cornelius Scipio Aemilianus, providing excellent access to those who ran the empire.[4]

Despite this, the account has been judged anachronistic for Polybius' own time and even the late third century. Walbank argued that the account was largely derived from Polybius' personal observations and enquiries concerning the army, with the caveat that the digression's location in the narrative must be taken into account.[5] The interruption of book 6 comes just after the disastrous Battle of Cannae in 216. Inserting the digression at this point demonstrated the rigidity and strength of Roman institutions which were, for Polybius, the determining factors in Rome's coming dominance.[6] Given the importance Polybius placed on what he considered the proper modes of historical enquiry (personal experience, eyewitness questioning and the study and collation of written works[7]), alongside the castigation he gave writers whom he felt had failed to meet these standards,[8] it seems a conclusion of reliability, at least for the late third century, can be reasonably safely reached.

However, a writer's ideals do not always map onto real practice, and Polybius is guilty of this elsewhere in his work.[9] Indeed, the military digression is repeatedly condemned as outdated and occasionally implausible, particularly in the detail of the levy on the Capitol.[10] Rawson suggests that the digression's place has no bearing on

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[4] Polybius 31.23-4.
[5] Walbank (1957) 698-9, (2002b) 279.
[6] Polybius 6.2; Eckstein (1997) 175f; Brink & Walbank (1954) 115f; Pelling (2007) 247.
[7] Polybius 12.25e.
[8] Polybius passim, but especially 12.
[9] E.g. he criticises Timaeus' use of only records but proudly recalls inscriptions he has used, Polybius 12.11.1-2, 3.22; speeches are also reproduced, Walbank (1972) 43-5.
[10] Taylor (1957) 342 n.15; Momigliano (1975) 25; Rawson (1971) 13 (although she does not find the levy on the Capitol implausible); Brunt (1971) 627; De Ligt (2007) 115-6; Dobson (2008) discussing the camps at Numantia; Erskine (2013) 238. The probability of the *dilectus* occurring on the Capitol both before the Hannibalic War and during the period Polybius was in Rome will be discussed below (II.iv).

the interpretation of Polybius' understanding of the processes, allowing that Polybius believed he was describing the current system.[11] Rather, she saw the account as originating and most likely lifted directly from a handbook for military tribunes twenty to fifty years old, that is, dating from c.210 at the earliest.[12] This suggestion has been followed by a number of modern scholars.[13]

There are problems with the solution. Firstly, it is unclear why Polybius, who was usually assiduous in attempting to gather accurate information, would accept this outdated account without further enquiry. His presence in Rome over several years allowed him to know whether Rome's manpower descended on the city each year. (Indeed, if his presence in Rome did not lead to this realisation, the assumption that it caused great disruption rendering it impossible must be questioned.[14]) Secondly, if the account is considered outdated for the late third century, as Brunt does,[15] why was it still being recorded during the Hannibalic War? Finally, the emphasis on the military tribune over the consul is hardly unique in Polybius' work. With six tribunes per legion, and one consul for an army often of two legions and equivalent allies, they necessarily featured prominently in running and leading a legion.[16] It is not surprising that military tribunes therefore also feature in the literature. Rather than question the comprehensiveness of Polybius' account, the prominence of the tribune should be seen as a reflection of everyday practice in the legions. The inconsistencies in the arguments marshalled against accepting Polybius' account of

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[11] Rawson (1971) 13.
[12] Rawson (1971) 15. However, she does conclude that it is unlikely that Polybius' account was entirely wrong, and considers a levy in Rome plausible.
[13] Dobson (2008) 54; Sage (2008) 122.
[14] Brunt (1971) 625.
[15] Brunt (1971) 627-8.
[16] Polybius 6.19-42; see VI:ii.

the *dilectus* as representative of Mid-Republican practice mean another interpretation is required.

It has been noted that Polybius was above all a military historian, lacking the temperament for more traditional scholarly interests such as Homer and philosophy, preferring warfare's technical details.[17] This does not mean that Polybius was unfamiliar with or incapable of producing such works (as his discussion of the Roman constitution in particular demonstrates[18]), just that the military sphere was of greater interest to him. Polybius himself was keen to emphasise the difference between his own methods and those of his more 'literary' counterparts. Polybius was not simply an observer, but had a military reputation in his own right. He served as a cavalry commander over Greek auxiliaries in the Macedonian War, a position which Walbank points out often led to the generalship of the Achaean League.[19] Walbank further highlights several achievements pointing to a successful career in Achaea.[20] This reputation is demonstrated by the consul M'. Manilius ordering Polybius to report to Lilybaeum for the invasion of Carthage in 149.[21] Many aspects of ancient warfare were universally applicable, but it is unlikely Polybius was summoned to provide tactical advice for an army about which he had little or no knowledge.

More importantly, the success of Polybius' work highlights his understanding. The work was addressed to a Greek audience. Providing an account of the *dilectus* which he knew to be incorrect or outdated would have undermined Polybius' stated purpose

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[17] Walbank (1972) 33; Marsden (1974) *passim*; McGing (2010) 175.
[18] Polybius 6.1-18, 6.43-59. Cf. Champion (2004) 87.
[19] Polybius 10.22.9; Walbank (2002a) 21.
[20] Walbank (2002a) 20-21: Polybius was chosen to carry the ashes at Philopoemen's funeral (Plutarch, *Phil.* 2.15), sent in embassy to Q. Marcius Philippus in 169 (Polybius 28.6.9) and requested by Ptolemies VI and VIII to lead the troops sent to them (Polybius 29.23.7).
[21] Polybius 36.11.1.

in helping Greeks understand their conquerors.[22] The Roman elite were also familiar with the *Histories*. Cato ridiculed Polybius for painting himself as a modern-day Odysseus in his attempts to visit distant places.[23] Cato notably fails to make any (recorded) comment concerning the historical or military content of Polybius' work, suggesting that nothing was considered glaringly incorrect. Too much weight should not be placed on this point, as it is impossible to know what has not survived. Nonetheless, it appears that Polybius had a justified reputation in military matters which his *Histories* only enhanced.

Finally, as will be further illuminated in the following discussion, the text itself reveals an awareness similar to his reputation. The notes on changes in practice concerning cavalry enrolment and weaponry developments make it clear that if Polybius was following an earlier antiquarian or handbook he was not doing so blindly.[24] Indeed, the section on weaponry change reads very much like an addition to the account of how the different lines were armed, the sentence structure becoming much more convoluted. More importantly here, the note on legion size can be removed from the text without damaging the flow or comprehension of the narrative.[25] It is not the purpose here to attempt some kind of reconstruction of an 'original' source text, merely to highlight that it is possible to see thought, selection and addition in the construction of the account of the *dilectus*. This accords with the above image of a writer very much in command of his subject matter.

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[22] Polybius 6.2.3; Momigliano (1977) 71; Erskine (2013) 231; Thornton (2013) 213-5.
[23] Polybius 35.6.3-4.
[24] Polybius 6.20.9, 6.25.6-11.
[25] Polybius 6.20.8.

ii: Terminology

Having established that Polybius' account of the *dilectus* is reliable on the whole, it is necessary to examine the narrative in more detail in order to gauge whether the specifics are accurate. However, before this the terminology used by ancient authors must be examined. This chapter is limited to discussing Polybius 6.19-20 because after this description (of the selection of men, their division into legions and mention of legion sizes) Polybius declares the levy to be completed.[26] Thus the rest of his description, dealing with the first and second reassembly of the legions for divisions into lines and mobilisation, is a description of internal legion organisation and administration rather than a part of the *dilectus* itself. The terminology used to indicate the separation of enlistment and organisation opens a window onto the ancient perception of the levy. This section will discuss the language used by both Greek and Latin authors in describing the levy in order to demonstrate the integral nature of bureaucracy in the *dilectus*.

The levy is consistently described in terms which refer to a written process. In Latin, *scribere*, 'to write', is extremely common.[27] It indicates that writing was key to the levy, not only the selection by reading out suggested by *dilectus*. The other word frequently used to describe the levy is *conscribere*, 'to write down together'. [28] It is difficult to interpret this as anything other than the creation of a new list. Polybius uses a similar Greek term, καταγάφειν.[29] Again, this has a literal meaning of 'to

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[26] Polybius 6.21.1.
[27] *OLD* sv. s*cribo*; e.g. Livy 21.17.3, 22.11.2,3, 23.24.5, 24.11.6, 25.3.4, 26.1.12, 27.22.6, 29.13.1, 30.2.1,6, 31.8.5,11, 32.1.3, 33.25.10, 34.56.4, 35.20.4, 36.1.6, 37.2.4,8-10, 38.35.9, 39.20.3, 40.1.5, 41.9.2, 42.18.6, 43.12.5-6, 44.21.5.
[28] *OLD* sv. *conscribo*; e.g. Livy 21.26.2, 22.11.8, 24.20.1,13, 27.46.3, 28.10.14, 30.41.5, 36.3.13, 37.2.6, 40.1.5, 40.26.5, 40.28.10, 41.5.4, 41.21.5, 43.11.10, 44.21.8.
[29] Polybius 6.19.5 ποιεῖσθαι τὴν καταγραφὴν, 6.21.1 τῆς καταγραφῆς.

write down'. This could be a literal translation of *conscribere*,[30] or its similar Greek meaning of 'to list, register or mark out'.[31] On either interpretation, its usage supports the creation of a new legion list during the levy. This does not rule out a marking of some type on a census record or something similar to indicate service, although it also does not confirm it. Importantly, the consistent use of *scribere*, *conscribere* and καταγάφειν for the levy suggests that written processes were integral to the levy. Indeed, Polybius declares the levy completed with the phrase ἐπιτελεσθείσης δὲ τῆς καταγραφῆς τὸν προειρημένον τρόπον, 'the list having been completed in the previously stated manner'.[32] The implication of this is the primacy of written administration in the very conception of the *dilectus* by ancient writers.

The other word to discuss is *dilectus*.[33] This noun is derived from the perfect participle of *diligo*, a verb meaning 'to distinguish by selecting from others'.[34] This in itself does not necessarily imply a written record; it could simply refer to selection along the lines of that which took place on the Capitol. However, closer examination of the verb's origin is helpful here. *Diligo* might initially be considered to have been created from *dis-* and *ligo*. However, the form from which *dilectus* originates, as indicated by the form of the perfect participle, is *dis-lego*. The form of the first principal part, *diligo*, appears unusual, but has undergone a vowel shift to be expected with this combination of consonants.[35] This origin gives *dilectus* a sense of 'to select by reading out', implying the presence of some sort of list. This does not

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[30] David Langslow (pers. comm.).
[31] LSJ sv. καταγραφή.
[32] Polybius 6.21.1.
[33] E.g. Livy 21.26.2, 22.2.1, 26.31.11, 27.38.1, 29.13.1, 32.9.1, 32.26.12, 35.2.8, 38.44.8, 39.20.4, 40.1.3, 41.5.4, 43.11.10, 44.21.5; [Livy], *Periochae* 14.3, 55.2.
[34] *OLD* s.v *deligo*[1] (i.e. *diligo*. The *OLD* s.v. *deligo*[2] is mistaken when referring to *deligo*[2]).
[35] Philomen Probert (pers. comm.), David Langslow (pers. comm.). *OLD* s.v. *deligo*[1] gives *de-lego*, a later stage of development.

give any indication of the decree of bureaucracy involved, but may indicate an at least partly written process.

iii: Service terms

The first element of Polybius' levy description is a discussion of service terms, including both the maxima which could be served by foot and horse and the minima required for public office in the army and civilian life.

> ἐπειδὰν ἀποδείξωσι τοὺς ὑπάτους, μετὰ ταῦτα χιλιάρχους καθιστᾶσι, τεττρασκαίδεκα μὲν ἐκ τῶν πέντ᾽ ἐνιαυσίους ἐχόντων ἤδη στρατείας, δέκα δ᾽ ἄλλους σὺν τούτοις ἐκ τῶν δέκα. τῶν λοιπῶν τοὺς μὲν ἱππεῖς δέκα, τοὺς δὲ πεζοὺς ἓξ <καὶ δέκα> δεῖ στρατείας τελεῖν κατ᾽ ἀνάγκην ἐν τοῖς τετταράκοντα καὶ ἓξ ἔτεσιν ἀπὸ γενεᾶς πλὴν τῶν ὑπὸ τὰς τετρακοσίας δραχμὰς τετιμημένων· τούτους δὲ παριᾶσι πάντας εἰς τὴν ναυτικὴν χρείαν. ἐὰν δὲ ποτε κατεπείγηι τὰ τῆς περιστάσεως, ὀφείλουσιν οἱ πεζοὶ στρατεύειν εἴκοσι στρατείας ἐνιαυσίους. πολιτικὴν δὲ λαβεῖν ἀρχὴν οὐκ ἔξεστιν οὐδενὶ πρότερον, ἐὰν μὴ δέκα στρατείας ἐνιαυσίους ἦι τετελεκώς. (Polybius 6.19.1-4)[36]

> Whenever they elect consuls, after this they appoint military tribunes, fourteen from those already having five campaign years, and ten others from those having ten. Of the remaining, it is necessary that the horse complete ten campaigns, the foot six <and ten> by compulsion within forty and six years from birth except those valued below 400 drachmae; they let all these fall into naval service. If at any time some emergency should oppress them, the foot are obliged to serve twenty campaign years. It is not permitted for anyone to take political office before he has completed ten campaign years.

Unfortunately, part of this text is corrupt. The manuscripts give either ἓξ οὐ δεῖ, '…six; it is not necessary…', or ἓξ οὕς δεῖ, '…six. It is necessary for them…'.[37]

Moore argues that the two oldest manuscripts containing this section of book 6 (FS)

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[36] Buettner-Wobst's emendation used in the Loeb has been corrected from καὶ <δέκα> to <καὶ δέκα>.
[37] FS; D²G.

must derive from a single exemplar as they contain exactly the same excerpts.[38]

However, the negative does not make sense in Greek. The relative οὕς gives a more

plausible reading, giving the ordinary service term of the foot as six years, but

produces difficult syntax. Alternatively, the οὕς can be deleted entirely following

Cavaignac, again leaving a six year term.[39] Modern scholars, including in the text

given above, follow Buettner-Wobst in supplying ἓξ καὶ δέκα.[40] This gives a normal

term of sixteen rather than six years. Sixteen years is usually accepted by modern

scholars as it conforms to the original length of service set out by Augustus when he

established his professional army.[41] However, Brunt points out that this does not

mean that sixteen years' service was normal in the second century, nor that the term

was unchanged between Polybius and Augustus.[42] This is a valid caveat, especially

as sixteen is a modern interpretation of a text in which only six is attested. This

section aims to demonstrate that while there was an ideal normal service length, of

six rather than sixteen years, the ultimate maximum of twenty years gave the senate

enough leeway to cover emergencies and render service extremely flexible. This is

not directly relevant to the use of paperwork in the levy. Nonetheless, through the

service terms a process of officially recording service length can be glimpsed.

Appian in particular suggests that six years was the normal length of continuous

service during the second century.[43] Keppie and Nicolet have argued that this was

the ideal, although not legal, limit to continuous service due to political pressure.[44]

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[38] Moore (1965) 55 (stemma on 73).
[39] Cavaignac (1914) 76.
[40] Buettner-Wobst (1889) 265.
[41] Walbank (1957) 698; Brunt (1971) 399; Southern (2007) 92; Nicolet (1980) 97; Harris (1985) 45 n.1; Keppie (1984) 33; Dio 54.25.6.
[42] Brunt (1971) 399.
[43] Appian, *Hisp.* 11.61, 11.65, 13.78, 14.86. Cf. Livy 34.56.8, 40.36.7. Only 13.78 makes a direct reference to six service years, but the years between fresh troop recruitment suggests that approximately six service years was the norm during this period.
[44] Keppie (1984) 33; Nicolet (1980) 113.

Consuls were increasingly unwilling to enrol those reluctant to serve;[45] occasional

mutinies demonstrate that soldiers would object if they considered their service too

long.[46]   The terms served before mutiny varied, but it is notable that all (outside the

Hannibalic War[47]) occurred within eight years. Brunt argued that by the mid-second

century six years had been the normal service term in Spain for some time.[48] This

six year term seems to have been a response to pressure exerted by unrest among

long-serving Spanish legions; all the references cited are for Spain only. Thus it can

only be stated with certainty that six years was the term for Spain, although this does

not rule out that it was the case across the empire.

Richardson agrees with this assessment, suggesting that six years was the usual term

for second-century service in Spain.[49] He cites the second-century satirist Lucilius

as evidence of the special treatment required for men serving in Spain.[50] Lucilius

states that a soldier served in Spain for thrice six (eighteen) years. The comment

exists only as a fragment, lacking context. It is unclear whether the eighteen years

were continuous or not. More importantly, eighteen years of service, continuous or

otherwise, would have been considered excessive for anyone other than a career

soldier whether or not the individual served in Spain. If the remark was calculated to

be inflammatory or striking, eighteen rather than six would have greater impact than

eighteen rather than sixteen. Lucilius' 'thrice six', *ter sex*, rather than eighteen, fits

the metre, but may also serve to support the six year limit.[51] The lack of context for

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[45] Livy 43.14.2.
[46] Cf. Messer (1920). It is notable that the mutiny against Scipio during the Hannibalic War was the first safely attested mutiny in which service length can be deemed to have played a major part. It is in the late second and first centuries during the civil wars that mutiny easily linked to long service terms can be most readily observed.
[47] Livy 28.24-32; Polybius 11.25-30; Appian, *Hisp.* 34.137-36.146; cf. Chrissanthos (1997).
[48] Brunt (1971) 401.
[49] Richardson (2000) 167.
[50] Lucilius 15.509-510. *dum miles Hibera terrast atque meret ter sex aetati' quasi annos.*
[51] Tim Cornell (pers. comm.).

the remark means that the tone cannot be inferred, whatever might be expected of the satirist. There is not any sense of judgement in the surviving fragment; it simply states the case. Thus the Lucilius fragment is largely unhelpful in determining whether Spain was a special case in setting continuous service terms.

Nonetheless, the evidence of Livy and Appian suggests that it was routine to send men home after six years' continuous service. Nicolet suggested that the 184 decree to discharge all those who had served their term in Spain referred to either ten or sixteen years.[52] However, Livy gives no indication that terms were this long. He refers only to those who had completed their service, *emerita stipendia*. Moreover, Spain had been receiving reinforcements over the previous years with veterans dismissed in the same manner.[53] While the legions remained nominally the same, their composition changed. It is unlikely anyone dismissed in 184 had been serving longer than since 193, that is, nine years. Indeed, the army in Further Spain had been taken out in 195 by M. Porcius Cato.[54] This does not demonstrate that the maximum term was six years, but the reinforcements and dismissals nonetheless demonstrate a desire to limit continuous service terms. It can be inferred that nine years was considered a long term.

At a tangent to this is continuous and non-continuous service. Southern states that Roman males could serve only six years continuously, but remained liable for up to sixteen years of service.[55] The evidence examined thus far neither confirms nor denies this. If six years was only the ideal norm for continuous service, sixteen becomes a plausible (if conjectural) reading of Polybius; but if six years was the total

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[52] Nicolet (1980) 113; Livy 39.38.8.
[53] Livy 37.50.11 (189), 34.56.8 (193).
[54] Livy 33.43; Appian, *Hisp.* 40.161.
[55] Southern (2007) 92.

ideal normal term, modern reconstructions of sixteen must be considered to be anachronistically following Augustus' reforms. The recruitment oath added to the census oath in 169 may help clarify this situation.[56] In this all those under 47 who had not served were to present themselves to the *dilectus*. This suggests that in 169 those who had served were considered to have completed their service apart from in emergency situations.[57] This makes more sense in a context where six years was the ideal norm for service and campaign years were served consecutively. In the mid-second century men who had served at all were considered to have fulfilled their obligation. If this was the case, it explains both the unrest of soldiers on a longer campaign and the senate's desire to limit service to this length.

The extraordinary service maximum of twenty years must also be addressed. This can rarely if ever have been reached, even during the Hannibalic War. The survivors of Cannae were decreed to spend the war's remainder in Sicily,[58] but the earliest these men can have been enrolled was 218.[59] According to Livy they were not officially discharged until late 201 or 200,[60] but this is still only a total service of eighteen years. Further service by those Scipio took to Africa was met with complaints and near mutiny by the men themselves, but is characterised throughout as volunteer service.[61] This is significant for several reasons. Firstly, the Hannibalic

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[56] Livy 43.14.5-6. To be discussed further below.

[57] Livy 43.14.6 - *si miles factus non eris, in dilectum prodibis?*- 'If you will not have been a soldier, will you be present at the levy?' It is possible to translate the first clause to mean 'if you are not then serving as a soldier', but the author believes that the first translation is a more accurate rendering. However, the problem of translating this phrase is underlined by the English editions which retain the ambiguity.

[58] Livy 23.25.7. It is worth noting that the Cannae survivors who completed their term in 216 were not banished to Sicily. It is highly unlikely anyone had served fourteen years prior to the Hannibalic War given that only four legions were enrolled every year and campaigns tended to be short. Therefore, the fate of the Cannae survivors also suggests that six years was the normal complete service term of citizens, at least before the Hannibalic War.

[59] Livy 21.17.2.

[60] Livy 30.41.5, 31.8.5.

[61] Livy 31.14.2, 32.3.3 (near mutiny), 35.2.8, 37.4.3.

War was an extreme situation, the duration of which the Romans could not have predicted. The decree which banished the Cannae survivors to Sicily set no limit beyond the war's unknown end.[62] This was intended as punishment, and any theoretical limits were to be ignored, but it is also unlikely that a war of such duration was imagined even in 216. However, the key point is that no numerical limit was imposed. Effectively limitless service was meant to be a severe punishment, indicating that there was an expectation of a campaign year maximum. However, in the context of 216 this could as easily have been six years as twenty. Whichever was imagined, the Cannae veterans demonstrate that serving twenty years was extremely unusual.

Secondly, the service of the victors at Zama, who included veterans from Cannae, after the Hannibalic War's end is always characterised as volunteer service where the individual gave his name rather than had it called. This suggests that if an individual volunteered for a campaign, it could take the number of years he served beyond the theoretical maximum. This is supported by other examples of volunteering,[63] and most notably by Spurius Ligustinus' career.[64] Thus, while there was a theoretical military service maximum, it could in reality be circumvented by volunteering, or the appearance of it. Additionally, the *tumultus*, an emergency levy, overrode any exemptions a citizen had including *emerita stipendia*.[65] It acted as another way in which the theoretical limit could be ignored. As such, it is possible that Polybius' absolute maximum of twenty campaign years was in fact only a term illustrative of what was ordinarily beyond imagination, a symbolic figure more than a reality. This

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[62] Plutarch, *Marc.* 13.3; Livy 23.25.7 – *in Siciliam eos traducti atque ibi militare donec in Italia bellum esset placuit.*
[63] Livy 9.10.6, 25.19.13, 27.46.3, 37.4.3.
[64] Livy 42.34.
[65] See III:iii.

also fits with an ideal normal term of six rather than sixteen years. The jump from six to twenty is considerably more than sixteen to twenty. It would have allowed the senate to legally mobilise whatever manpower they considered meet whilst simultaneously giving Rome's citizens a more palatable service term.

The service required for office is also instructive. It may initially seem odd that senatorial candidates required greater than the norm of ordinary foot service. However, there are several reasons why this might be preferable. Possibly the need for ten years' service was linked to the equestrian service maximum. As the Republic developed, the senate was increasingly limited to those rich enough to qualify for equestrian military service, although this did not mean they could not serve with the foot.[66] The requirement was the same for all, whether serving as foot or horse. Further, Rome was organised by the class system in such a way that those with a greater stake in the state also had greater responsibilities, as demonstrated by the richer citizens being liable for the more expensive cavalry service.[67] Thus it is not surprising that those desiring to have a political role in Rome had to provide greater service to her beforehand.

Moreover, the pinnacle of a Roman political career, the consulship, was essentially a generalship. Harris and Hopkins have pointed out that the majority of a consul's military training came from practical experience gained during their ordinary military service.[68] Campbell questioned the practicality of this.[69] However, Polybius himself provides an answer. The position of military tribune required

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[66] Walbank (1957) 700 suggests that the change to enrol the horse before the foot was so that those who were not selected for cavalry service would still be liable for infantry service.
[67] Polybius 6.20.9.
[68] Harris (1985) 11; Hopkins (1978) 27.
[69] Campbell (1987) 20.

either five or ten years' service depending on seniority.[70] The six military tribunes effectively ran the legion day-to-day, and often commanded detachments.[71] On occasion ex-consuls became military tribunes, demonstrating the position's tactical importance.[72] Finally, it is unlikely to be a coincidence that the requirement for a senior military tribune and senatorial office was the same: ten years' military service. The military tribunate was often a stepping stone into political office, demonstrating that practical military experience was seen as a suitable education for both an extended military career and a senatorial one.

It is illuminating to compare Polybius' requirements for holding office in Rome with those in a municipality. The *tabula Heracleensis* provides the service terms required for anyone who wished to serve as a magistrate under the age of thirty: three years in the cavalry or six years in the infantry.[73] Using this law is not without difficulty, particularly as it is Caesarean.[74] However, it still provides an interesting comparison. The stipulation of below thirty years old seems to suggest that for those over thirty, the approximate minimum age of entry to Rome's senate, service requirements were the same as those in Rome. Fear suggests that this was modelled on Roman practice.[75] The lower terms appear to indicate a need for less experience among the magistrates; indeed, the stipulation for those under thirty suggests that it was common enough to be worth legislating. Although of local importance, magistrates in Heraclea were below the status of those in Rome who governed the

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[70] Polybius 6.19.
[71] Polybius 6.19-42, cf. VI:ii.
[72] E.g. Livy 42.49.9.
[73] *Tabula Heracleensis* ll.98-107.
[74] Crawford *et al.* (1996) 360-2.
[75] Andrew Fear (pers. comm.).

empire. It follows, then, that their obligation was, on occasion, less than those aiming for the senate.

Importantly, there is an emphasis on potential magistrates having genuinely gained military experience during their service. It is required that during the campaign years more than six months was spent in camp, or two campaigns were undertaken in that year.[76] This supports the rebuttal to Campbell that individuals did gain genuine military experience while on campaign. The importance of a military background is further emphasised by the reference to magistrates as *decuriones* and *conscripti*. Both these terms refer to magistrates, but more properly belong in the military sphere, translating as approximately as 'horse captains' and 'the enlisted'. However, in the case of *conscripti*, the term could refer only to those enrolled in the senate by the censors.[77] It is possible that by the first century the civilian interpretation of *decurio* had come to dominate its meaning, but it nonetheless suggests that earlier a military role was considered integral to holding office. Even if Heraclea simply adopted Roman terminology, this does not diminish the significance of the term's origin.

All of this has an interesting effect on the interpretation of the legions' written administration. Having a set service length at all suggests that it was necessary to keep a note of campaign years served. This would have allowed individuals to more strongly make their case for an *emerita stipendia* exemption as well as helped the senate have a more accurate idea of the liable manpower at its disposal.[78] However, an assumption that having served is equivalent to having fulfilled the obligation, as

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[76] *Tabula Heracleensis* ll.101-102: *quae stipendia in castreis inue provincia maiorem partem sui quoiusque anni fecerit, aut bina semestria, qua<e> ei pro singuleis annueis procedere operteat.*
[77] Senators are frequently called *patres conscripti*. E.g. Livy 22.60.7; Sallust, *Cat.* 51.1; Cicero, *Verr.* 2.3.82.
[78] See II:iv.

implied by the 169 oath (above), would not require such a detailed record system. Rather than recording the number of campaigns served, notes would need only a single mark to identify those who had completed their service. On the other hand, the importance placed on fulfilled service terms for political purposes by Polybius and the *tabula Heracleensis* suggests that more than a binary approach was required. Consequently, it must be concluded that, despite the view of service acquired by the mid-second century, the service terms provided by Polybius demonstrate that a record of years served by each citizen was a necessity. This was the case in Rome in at least the late third and second centuries, and remained the case for municipalities into the first century.[79]

iv: *in Capitolio*

The issue which generates the most scepticism among modern scholars is that of the levy being conducted on the Capitol in Polybius' day, or even in the late third century.[80] Polybius is explicit in stating that this is the case, and Livy refers to the levy occurring on the Capitol.[81] From a bureaucratic standpoint such centralisation would not be at odds with Rome's *polis*-like administrative structure. Operation of the *dilectus* in this way would shed light on the possible use of paperwork in the levy. However, the physical reality of gathering so many men to Rome from across the *ager Romanus* and placing them on the Capitol has caused scholars to question the veracity of Polybius' account. This section will examine the problem from a

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[79] M. Tullius Cicero's career is the first recorded where full military service was not required. His unsuccessful stint as a general may indicate that in military terms experience remained desirable. However, besides the career of the aforementioned Spurius Lingustinus, Cicero's is the first for which a full record survives. It may be that the ten years' service recorded by Polybius was rarely reached in reality, in the first century at least. It is not the purpose here to address this issue in greater detail.
[80] Walbank (1957) 699; Brunt (1971) 625-6; Sage (2008) 121; Erskine (2013) 238. Nicolet (1980) 100 and Toynbee (1965a) 505 are of the few who accept Polybius' location, although implicitly; Rawson (1971) 15 explicitly accepts it.
[81] Polybius 6.19.6; Livy 25.3.8-14, 26.31.11, cf. 39.29.10 (in the city, rather than explicitly on the Capitoline).

topographical, demographic and literary perspective in order to demonstrate both that the *dilectus* could have occurred on the Capitol in the period under discussion and that the literary evidence suggests the primary importance of written documentation in the process.

> ἐὰν δὲ μέλλωσι ποιεῖσθαι τὴν καταγραφὴν τῶν στρατιωτῶν οἱ τὰς ὑπάτους ἔχοντες ἀρχάς, προλέγουσιν ἐν τῷ δήμῳ τὴν ἡμέραν, ἐν ᾗ δεήσει παραγενέσθαι τοὺς ἐν ταῖς ἡλικίαις Ῥωμαίους ἅπαντας. ποιοῦσι δὲ τοῦτο καθ᾽ ἕκαστον ἐνιαυτόν. τῆς δ᾽ ἡμέρας ἐπελθούσης καὶ τῶν στρατευσίμων παραγένων εἰς τὴν Ῥώμην, καὶ μετὰ ταῦθ᾽ ἀθροισθέντων εἰς τὸ Καπετώλιον… (Polybius 6.19.5-6)

> If the consuls in office wish to make a list of the soldiers (i.e. enrol them), they announce beforehand in the assembly the day on which it will be necessary for every Roman in the ages to be present. They do this each year. The day having come and the fit-for-service having arrived in Rome, and after this having been mustered on the Capitol…

To begin, it is worth examining the claim that it was impossible to fit all those required to attend the levy on the Capitol. While examining the tribal assembly, which also met on the Capitoline, MacMullen concluded that c.25,000 men could fit in the *area Capitolina* if it was unencumbered by statues.[82] However, to the author's knowledge no other attempts to examine how many could fit on the Capitoline Hill have been made. A more detailed consideration is required to establish the Capitoline's capacity and exactly which areas of the hill were used.

The first difficulty in this task is determining what exactly is meant by the terms *in Captiolio* and εἰς τὸ Καπετώλιον. The Greek appears to be a translation of the Latin term in the accusative. At its most precise, *Capitolium* refers only to the southern

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[82] MacMullen (1980) 455.

elevation containing the precinct of the Capitoline Temple, the *area Capitolina* or even only the temple itself.[83] However, the term can also refer to the entire hill, also encompassing the Arx and the Asylum between the two peaks.[84] Thus the area referred to could substantially differ in size depending on which was intended in this case. That Livy uses the term in both its senses in his work lends no clarity. However, the Senate traditionally met in the Capitoline Temple to discuss matters threatening Rome, as well as at the beginning of the consular year when a discussion of military requirements often took place.[85] It was also where consuls began and ended their campaigns under the sight of Jupiter Capitolinus.[86] That the levy then took place in the sacred space around the temple (*area Capitolina*) would follow this concern with invoking Jupiter's blessing on the upcoming campaign.

On the other hand, the change in meaning of *Capitolium* may also reveal the area of the levy. As the population increased over the centuries, it is possible that the gathering spread onto the relatively flat area of the Asylum and even up the steep slopes of the Arx.[87] The division of men into legions described by Polybius (further discussed below) still occurred on the *Capitolium* proper, but tribes waited outside until called.[88] This suggests that while the *dilectus* continued to take place *in Capitolio*, what this was considered to define grew to take in the necessary space. As such, it is worth accounting the area of both the *Capitolium* and the Asylum in a consideration of the physical space available for a levy on the Capitol.

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[83] Platner & Ashby (1929) 95-8; e.g. Cicero, *Scaur.* 47; Varro, *Ling.* 5.149; Virgil, *Aen.* 9.448; Horace, *Carm.* 3.30; Pliny, *HN* 19.23.

[84] Platner & Ashby (1929) 95-8; e.g. Cicero, *Font.* 30; Livy 3.18-19; Valerius Maximus 1.1.11; Suetonius, *Tib.* 3; Gellius, *NA* 17.21.24.

[85] Weigel (1986) 333, 337.

[86] Livy 45.39.

[87] Cf. Coarelli (2007) 31.

[88] Polybius 6.20.

A second, more problematic, difficulty is that of what buildings were present in these spaces during the Middle Republic. Excavation of the *area Capitolina* has revealed several temples alongside the Capitoline Temple, which can thus be accounted for in calculations. However, there were also numerous statues throughout the area, number and situation of which are unknown. The several instances at which some of these had to be removed suggest a significant and hindering presence.[89] Alternatively, the need to remove the statues may reveal that the *area* was considered overfull, not to what degree. Rather than indicating that the *area* was packed, it may simply refer to increasing difficulty in holding the levy and the tribal assembly. More difficult to calculate is the available space in the Asylum, where a lack of evidence results in nothing being known about its features, other than the Temple of Veiovis built in 192,[90] during the period under discussion. Therefore, the estimates presented below reflect the overall area only.

Having established the area to be considered, the total capacity can be estimated. Observations made in the Piazza del Campidoglio suggest an area of approximately $3339m^2$.[91] Following the system used by Taylor, Mouritsen and MacMullen for estimating crowd density, with four people in every $1m^2$, the total capacity of the Piazza is 13,356.[92] Coarelli's map of the Capitol has been used to trace this space

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[89] Livy 40.45.3; Piso, *FRHist* F40; cf. Cassius Hemina, *FRHist* F43.
[90] Livy 31.21.12, 35.41.8 with Briscoe (1973) 113; Albertoni (1999) 99; Coarelli (2007) 39-40.
[91] The author has been unable to obtain any official or exact measurements of the space. This total is based on measuring the frontage of the Capitoline Museum as approximately 63m. The Piazza itself is a trapezoid, but slightly longer than the Museum. In allowing for this, an area of approximately 63m by 53m has been estimated. As the point of this exercise is to generate an order of magnitude rather than an exact figure, the possibility of slight error here will not have a substantial effect on the conclusions drawn from it.
[92] Mouritsen (2001) 19; Taylor (1966) 113; MacMullen (1980) 454. This crowd density is within modern safe limits. 5 per m^2 is the maximum safe crowd density. Still (2014) 27-64. For animations see http://www.gkstill.com/Support/crowd-density/CrowdDensity-2.html.

onto the area of the Asylum.[93] This results in about four Piazza areas, an area of

approximately 13,356m^2 and a total capacity of 53,424 persons.

Within the *area Capitolina* the question is slightly more complex. The selection

method described by Polybius, of bringing four men forward at a time of comparable

age and fitness, suggested that more room was required to make this selection.[94] If,

as seems likely, the military tribunes and consul stood on the podium of the

Capitoline Temple, the elevation made this process easier. Nonetheless, it is best to

err on the side of caution here, assuming at least 1m^2 per individual. The other

limitation is that this required the men to be visible from the podium. Thus, only the

area before the podium will be considered, and the areas hidden by the Temples of

Fides and Opes Opifera excluded. On this basis, two Piazzas can easily fit into the

available space, giving a conservative estimate of 6678m^2. This figure could be

increased by about 25% and remain within sight of the podium, but as the *area*

Capitolina did contain an unknown number of statues it is perhaps best to remain

with the smaller figure. Thus 6678 spaced men, or 26,712 closely packed, could fit

into the *area Capitolina*.

It is possible to test this conclusion against ancient evidence. Livy reports that in

167 the soldiers of L. Aemilius Paulus filled the Capitol with such a crowd that no

one else was able to approach to vote for the consul's triumph.[95] Again, the use of

Capitolium is ambiguous but as tribal voting took place within the *area Capitolina* it

is reasonable to assume that these soldiers had filled the same space.[96] Paulus

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[93] Coarelli (2007) 28. The scale provided by Coarelli has not been used as it does not match up with
the measurements obtained by empirical evidence.
[94] Polybius 6.20.
[95] Livy 45.36.6 – *postero die milites tanta frequentia Capitolium compleuerunt, ut aditus nulli*
praeterea ad suffragium ferendum esset; Plutarch, *Aem.* 31.1-2.
[96] Livy 25.3.8-14, 33.25.7, 34.1.4, 34.53.2, 43.16.9, 45.36.1.

commanded two legions, each of 6000 foot and 300 horse.[97] Additional men were

present in Macedon from the levy of 168 who had been placed on garrison duty.[98]

The number is unclear, but it is possible these men had also returned to Rome.

Further, MacMullen has noted that the army returning from Illyria was also in Rome

at this time.[99] These men served under praetor L. Anicius Gallus, two legions

totalling 11,000.[100] It is unclear if these men were also on the Capitol during the

vote, but it is not unreasonable that they were. Anicius had conducted a related

campaign against Macedon's Illyrian allies. The treatment of Macedon and Illyria in

an almost identical manner by the senate, and almost as one by Livy, indicates the

close links between the campaigns.[101] Moreover, Paulus had claimed spoils from

those Illyrian towns which had supported Macedon. Paulus had to send a letter to

Anicius to prevent disturbance, presumably among the men, emphasising that there

may have been friction between Paulus and the Illyrian legions.[102] Thus it is

possible that 23,600 soldiers were in the *area Capitolina*. This is close to the 26,712

calculated above, suggesting that it is a reasonable estimate of the space available for

gatherings on the Capitol.

The second step in establishing whether the *dilectus* could have taken place on the

Capitol is estimating the number of men required to present themselves for the levy.

Some attempts to calculate the number of *assidui* (those over the property

qualification and thus liable for ordinary military service) at different points have

been made, by Brunt and Rosenstein in particular.[103] However, here a slightly

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[97] Livy 44.21.8.
[98] Livy 44.21.5-8.
[99] MacMullen (1980) 456 n. 16.
[100] Livy 44.21.10.
[101] Livy 45.18.
[102] Livy 45. 33.8-34.1.
[103] Brunt (1971) 64-6; Rosenstein (2002) 184-6.

different question is at issue so it is worth examining again. Brunt based his

calculations on two assumptions: the size of the population; and the ratio of *iuniores*

(aged between 17 and 46) to *seniores* (aged between 47 and 60) within this

population. This discussion aims to create a more accurate population model, basing

any necessary assumptions on the Coale-Demeny[2] model life tables. In this way the

model created, and subsequent conclusions drawn from it, will be demographically

plausible even though the exact nature of the Mid-Republican population is

unknown.[104]

It is necessary to emphasise that quantifications made about ancient demography can

never be precise. There are not enough data to make them so. Rather, they serve to

provide an indication of scale. The Coale-Demeny[2] tables are models, based on

probabilities for hypothetical stable populations. (In a stable population the

distribution of individuals across the different age categories remains the same, even

if the overall population changes.[105]) Any conclusions drawn from calculations

based on these tables are only estimates even when they appear very precise.

Nonetheless, the sense of scale provided by these estimates can open a window onto

the functioning of ancient societies.[106] Used with care here, they will aid

understanding of the *dilectus*.

Two Roman census figures will be used in this discussion: the 234 figure of 270,212

and the 164 figure of 337,022.[107] Although they are found only in the *Periochae* of

Livy, these figures are largely uncontested in modern scholarship. The population

size they represent is debated, but the figures themselves are considered accurately

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[104] The author would like to thank April Pudsey for her comments on the following discussion.

[105] Newell (1988) 120.

[106] Newell (1988) 118; Parkin (1992) 68, 80-3; Saller (1994) 47; Salleres (2002) 1-5, 160-7; Hansen (2006) 1; Akrigg (2011) 47-57; Holleran & Pudsey (2011) 12-3; Hin (2013) 105-18.

[107] [Livy], *Periochae* 20.15, 46.7.

transmitted. The 234 figure was chosen because it reflects the population prior to the Hannibalic War. Using a return from during the war, such as from 207,[108] would create problems as the death rate among the *iuniores assidui* was significantly higher than usual.[109] In effect, the population was no longer 'stable' and thus the census figures cannot be applied to the model life tables in the same way. This earlier figure also avoids the problem of the Capuan loss of Roman citizenship during the war. The number of citizens this entailed can only be estimated.[110] (The Polybian manpower figures of 225 are not used as they are not census figures, see III:iii.) The 164 census figure is the highest recorded during the Middle Republic; it serves to provide a highest possible scenario. It is also significant as it reflects the population size shortly before a clearing of the statues from the *area Capitolina*.[111] If it was possible to hold the levy on the Capitol at this time, this figure may help demonstrate the space available.

Exactly what these census figures represent is a more difficult question which must be overcome before continuing. Traditionally, the original census was taken to create a record of all those capable of military service, that is the *iuniores* and *seniores*.[112] Thus the most common census figure interpretation is as a record of all male citizens over 17 years old.[113] However, taking into account the taxation element of the census, Hin has suggested that the census in fact reflects all those *sui iuris*.[114] This would include not only the appropriate *iuniores*, *seniores* and *senes*

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[108] Livy 27.36.6-7.
[109] The reliability of casualty figures in the ancient literature will be discussed in III. However, whatever view is taken on this subject, it is clear that the number killed during the Hannibalic War was far in excess of previous wars.
[110] Cf. Brunt (1971) 64-6.
[111] In 158, Piso, *FRHist* F40.
[112] Livy 1.44.
[113] Frank (1924) 329; Lo Cascio (1999) 163-4; De Ligt (2007) 121-4.
[114] Hin (2008) 202-3.

(men over 60) but also widows and orphans. As will be discussed later (III:i-ii), the *paterfamilias* provided the census declaration for his whole family.[115] However, this would have included any sons and grandsons for a military register. Hin suggests different lists were compiled for different purposes, a suggestion with which the author agrees (II:v).[116] Despite this, it is unlikely that the published census figure, under the formula *censa sunt civium capita* (the heads of the citizens were counted),[117] changed from its traditionally ascribed role of numbering the male adult citizens.[118] Thus this interpretation of the census figures, all male citizens aged 17 and over both above and below the property qualification for ordinary service, will be used here.

Another problem is census under-registration. Estimates have ranged from 10% in the Middle Republic to 25% by the late-first century.[119] What this means for the citizen population has been hotly debated.[120] However, this is not such a problem as it initially appears. The purpose here is not to discuss Italian demography but to understand the *dilectus*. It is unlikely that those who avoided the census would then come forward for the levy. Indeed, if the levy used lists compiled from the census (see below), their absence would not have been noted. Further, under-registration figures are speculative, often used to support particular demographic reconstructions. Thus it is acceptable, and possibly safer, to use the figures as transmitted by the *Periochae* rather than attempt to alter them.

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[115] See e.g. Toynbee (1965a) 445; Brunt (1971) 15; Nicolet (1980) 68; Lintott (1999) 117-8; Briscoe (2012) 434; cf. III.i-ii.
[116] Hin (2008) 214.
[117] Livy 10.47.2, 27.36.6-7, 35.9.2, 38.36.10, 42.1.2; [Livy], *Periochae* 10.10, 11.1, 13.7, 14.5, 16.5, 18.6, 19.7, 20.15, 27.22, 38.7, 41.8, 42.9, 45.9, 46.7, 47.7, 48.2.
[118] The issue of taking the census will be discussed in greater detail in III.
[119] Brunt (1971) 35; Lo Cascio (2001) 123.
[120] E.g. Frank (1924) 329; Brunt (1971) passim; Lo Cascio (1999) 163-4; De Ligt (2007) 121-4; Hin (2008) 202-18.

The final problem is that of the *proletarii*. These were men who fell beneath the lowest property qualification for ordinary service, but were liable in emergencies. While attempting to explain the recruitment difficulties during the Hannibalic War, Brunt argued that in the late third century the *proletarii* made up approximately 50% of the population.[121] However, Rosenstein convincingly concluded that 10% was a closer approximation, arguing that the requirement for a man to remain on the family farm made up the shortfall felt by the Roman levy.[122] As such, a conservative 10% will be taken from the total of each age category in the population breakdown.

Two model life tables will be used in conjunction with Saller's model population simulations. Following Parkin and Saller's considerations of likely life expectancy at birth (20-30 years), West tables will be used.[123] These are recommended for populations with statistics too poor to attribute them to the North, East or South models. Level 3 West Male and Level 6 West Male will be used.[124] These use a life expectancy at birth of 22.852 years and 30.073 respectively. As these fall at either end of the estimated 20-30 years life expectancy, they provide a 'best' and 'worst' case scenario for the numbers at the levy. Importantly, although the tables are not certain to replicate the Roman experience, they are 'unlikely to be grossly misleading'.[125]

In these tables C(x) is the proportion of the population within each age category. As the census figures give only those aged 17 and over, the total male population must be estimated for each year. The proportions cannot be applied directly to the census figures as they reflect the entire male population, and the census figures only that

[121] Brunt (1971) 66; Livy 22.11.2, 22.57.9, 23.14.2-4, 25.5.6-9; Appian, *Han.* 5.27.
[122] Rosenstein (2002) passim.
[123] Parkin (1992) 80; Saller (1994) 25.
[124] Coale & Demeny (1983) 107, 110.
[125] Saller (1994) 23.

aged 17 plus. Adding the proportions together for 17 and over gives the percentage of this total population that the census figures represent.[126] For Level 3 West Male this is 60.91%, giving a total male population for 234 of 443,625 and for 164 of 553,311.[127] To these numbers the percentages can then be applied, giving a breakdown of the men in each age category. The 10% of *proletarii* is then taken, leaving only the numbers of *assidui*. This can be seen in Appendix I, Table 1. The process has been repeated for Level 6 West Male (Appendix I, Table 2). The census total represented 64.51% of the whole male population, giving a total male population for 234 of 418,868 and for 164 of 584,440.

Having generated this breakdown, the individual figures can be applied to the model population simulations run by Saller. These took two different average ages of marriage, which Saller refers to as 'ordinary' (women aged 20 and men aged 30) and 'senatorial' (women aged 15 and men aged 25).[128] Here the tables 'the proportion having living kin' and 'mean age of living kin' have been amalgamated to examine three situations: Level 3 West Male 'ordinary' marriage, Level 3 West Male 'senatorial' marriage and Level 6 West Male 'senatorial' marriage for both 234 and 164. Saller did not provide a simulation for Level 6 West Male 'ordinary' so this cannot be examined. This range of examples will provide a series of likely termini, from which conclusions about the numbers required to attend the levy can be drawn.

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[126] Half the percentage for 15-19 has been used. This is because the age categories represent the total between the two ages, and cannot simply be split into fifths as the distribution is not necessarily equal across the age bracket. However, as the surrounding age brackets contain similar proportions it is reasonable to assume a relatively even spread. On balance, half is the best way to approximate the number required.

[127] All percentages given are rounded to two decimal places, and all numbers of men to the nearest person.

[128] Saller (1994) 45.

The Coale-Demeny[2] tables and Saller's simulations use age brackets which do not correspond exactly to the age of *assidui iuniores*, 17-46. Therefore the following calculations have been done using both the set 15-19 bracket and a 17-19 bracket (given in parentheses) following the rationale of note 126. The proportion of the population within the 15-19 bracket is large enough to have a significant effect on the conclusions here. Using both brackets allows a more effective application of the model. The 45-49 bracket has not been included because the number of men recruited from this bracket was negligible, and the number is more than made up for by the inclusion of the entire 15-19 bracket.

Before continuing, the variables imposed must be discussed. The author's tables have been created based on the notion that the levy allowed one man aged 17-60 to remain on the farm. Sixty was the age at which a Roman citizen male passed out of the *seniores* into the *senes*, relinquishing any obligation to fight in Rome's defence.[129] The age at which Rome considered her men no longer physically able is a reasonable one at which to assume running a farm and providing the main physical labour would at least start to become difficult. Farming, particularly ploughing, was a labour intensive occupation requiring a great deal of strength and stamina.[130] Rosenstein has demonstrated that it was extremely rare for anyone over 35 to be enlisted.[131] Further, he considers the 214 recruitment problems to be the result of labour requirements and a marriage pattern where men married at approximately age 30. This effectively resulted in a blanket exemption for married men as well as

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[129] Varro ap. Nonius 523.24.
[130] White (1970) 173-8, 194-5; Rosenstein (2004) 73.
[131] Rosenstein (2004) 85-89; Livy 22.11.9.

possibly oldest sons and sons of widows. As a result, the number of those liable and able to serve under normal conditions was roughly 50% of the *assidui iuniores*.[132]

It is possible that this exemption was made during the census rather than by the consul during the levy. This is not to deny that exemptions occurred during the *dilectus*; the evidence of the consuls acting in this way and the involvement of the tribunes of the plebs in disputes demonstrate that exemptions could be gained at this stage.[133] However, there is also evidence of exemption at an earlier stage. It has been commented that Polybius fails to mention an exemption process in his levy description.[134] An absence of evidence is not evidence of absence, but it may be that the majority of exemptions were not part of the *dilectus* and were thus not mentioned. More securely, Polybius refers to those who come to Rome as στρατευσίμοι, the fit-for-service. This implies the previous exemption of the unfit-for-service. Certainly, it would be unreasonable for those who had completed their liable service or who were incurably injured or maimed to have to attend every levy in order to obtain an exemption. A record taken during the census would solve this problem. It is not a great jump, given the preference of enlistment demonstrated by Rosenstein, to imagine that those married or the sole male labourer would be able to have such an exemption recorded in a similar way.[135]

Finally, the wording of the new oath established in 169 by the censors requiring all *iuniores* to swear that if they had yet to serve they would attend the *dilectus* again suggests that there was some kind of blanket exemption over those who had

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[132] Rosenstein (2004) 89; Livy 24.18.
[133] E.g. [Livy], *Periochae* 48, Appian, *Hisp* 9.49.
[134] Walbank (1957) 699; Brunt (1971) 628; Nicolet (1980) 98-9; Sage (2008) 122.
[135] The role of censor included assigning status. The census was originally a military review, and retained this aspect particularly with regard to the equestrians. As assessors of military fitness and category, it would be surprising if the censors did not have the power to grant exemptions.

served.[136] Interestingly, the oath was only required of those who had never served, rather than those who had not served their full term. This may be a reflection of the increasing length of second-century campaigns. However, the context of its introduction, difficulties in securing manpower, and that it applied to all *iuniores* indiscriminately suggests a large portion of the *assidui*'s manpower was untapped, perhaps due to just these types of marriage and labour exemptions. Consequently, in examining the numbers required to attend the levy all those married will be considered exempt, as will those without an unmarried brother or father under 60.

With these parameters discussed, the tables can be examined. An example will be discussed to explain the methodology: Level 3 West Male 'ordinary' marriage for ages 30-34. This was constructed using the 'proportion having living kin' and 'mean age of living kin' for the age bracket 30-34 from Saller's population tables.[137] Using the figure calculated for the proportion of the male population aged 30-34 (Appendix I, Table 1), the number with living wives, fathers and brothers was obtained. For the 234 population, there were 30,543 *assidui iuniores* aged 30-34. Of these, 59% had a living wife, 28% had a living father with an average age of 63.8 and 54% had a living brother with an average age of 29.5. The father can be discounted as on average he was aged over 60. A probability tree was used for the following calculation. 59% are immediately discounted because they had a marriage exemption. Of the remaining 41%, 54% had a living brother. However, the model requires that 59% of these brothers were also married. Using the probability tree, this means that 9.0774% of the total in this age bracket are liable and able men in the

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[136] Livy 43.14.5-6. See n.58.
[137] Saller (1994) 52-3.

Level 3 West Male 'ordinary' marriage model for 30-34 year olds using the 234 population. This gives a total of 2773.

For the 164 census figure, the number within the 30-34 age bracket is 38,095. Of these, again, 59% had a living wife, 28% had a living father with an average age of 63.8 and 54% had a living brother with an average age of 29.5. Following the same method as above, this reveals that the number of liable and able men in the Level 3 West Male 'ordinary' marriage model for 30-34 year olds for the larger 164 population is 3458.

The tables for the different age categories across the Level 3 West Male 'ordinary' marriage, 'senatorial' marriage and Level 6 West Male 'senatorial' marriage for the 234 census of 270,212 and the 164 census of 337,022 are fully laid out in Appendix 1, Tables 3.a - 5.b. The results are summarised in Table 1.

Table 1: Liable and available *assidui iuniores*, 15-44 (17-44)

Model	234	164
Level 3 West Male 'ordinary' marriage	81,670 (56,969)	101,861 (71,053)
Level 3 West Male 'senatorial' marriage	63,052 (50,114)	78,643 (62,506)
Level 6 West Male 'senatorial' marriage	60,537 (47,997)	84,465 (66,969)

The results show surprisingly little variation between the different marriage and mortality models. This supports their use in this case, as they seem to represent both ends of the plausible range within the models. These figures give a model of the liable and able population using only exemptions based on marriage and labour requirements. In reality, exemptions for served terms, illness and maiming would

also have lowered the number of available *iuniores assidui*. There is no evidence to

gain any sense of the scale of these exemptions but collectively they must have been

relatively significant, especially if the service term was six rather than sixteen

campaigns (see above, II.i). Further, the estimate of 10% *proletarii* is a conservative

one; a larger percentage would further lower the totals. Finally, the 15-44 models

include a large number below the age qualification. Thus it is plausible that the true

number of men liable and able to attend the *dilectus* was lower than those modelled

here.

These figures can now be compared with the Capitoline's capacity as calculated

above, revealing whether it was physically possible to hold the levy *in Capitolio*.

The Asylum's capacity up to the boundary of the *area Capitolina* was 53,424, and

that within the *area Capitolina* at least 6678 widely spaced or 26,712 closely packed.

All the 17-44 234 figures could have been contained *in Capitolio*. The 164 figures

suggest that the *area Capitolina* was more densely packed than the lower estimate

allows. However, it was demonstrated above that the Macedonian and Illyrian

legions could fit in the *area Capitolina* to vote in the tribal assembly. This suggests

that although it may have been more difficult than usual, the levy could still take

place on the Capitol in this model. The crowd may also have started to overspill the

relatively flat area of the Asylum onto the slopes. Moreover, it is probable that the

population increase was part of the reason for moving the *dilectus* to the *campus*

Martius by the first century.[138]

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[138] Nicolet (1980) 100 using Dionysius, *RA* 8.87.3-5 suggests that this move was at least partly in order to remove the influence of the tribunes of the plebs on the levy as it was outside their jurisdiction. This is plausible, but the increasing size of the liable and able *assidui* must have been a more pressing issue.

The 15-44 model results are more problematic. Nevertheless, this is not an insurmountable difficulty. As already mentioned, the totals are overestimates because of the inclusion of 15-16 year olds. Further, it is possible to increase the crowd density of the Capitol without reaching dangerous levels.[139] With a density of 5 per m^2, the maximum safe level, the Asylum will hold 66,780 and a packed *area Capitolina* holds 33,390. As with the 17-44 model, the number required to attend the *dilectus* in 164 would not easily fit within the defined area. However, the same caveats also apply. Thus, the physical evidence combined with the range of probable population models demonstrates that it was physically possible to hold the levy *in Capitolio* in the Middle Republic.

In light of this, the literary evidence can be re-evaluated. Several authors refer to the levy being on the Capitol.[140] This has been previously dismissed by scholars as a remnant of an older tradition referring to a sacrifice, the local levy for Rome itself or only the division into legions part of the levy, imagining Polybius' account to be missing a step.[141] These suggestions are not in themselves implausible, but require a non-literal interpretation of the evidence. Plutarch describes Marcellus, interrupted by accusations, performing a sacrifice (which may be connected to auspices) on the Capitol in 210, but not the levy[142] On the other hand, it is difficult to interpret Livy's comment that Marcellus went to conduct the levy as anything other than what it appears.[143]

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[139] See n. 92.
[140] Polybius 6.19.6; Livy 25.3.8-14; Varro, *ap.* Non. 28L, Plutarch, *Marc.* 23.1 with Livy 26.31.11; [Livy], *Periochae* 14.3 and Valerius Maximus with Varro, *Ling.* 6.86. Also referred to in Rome more generally: Livy 22.2.1, 25.3.4, 39.29.10, 41.5.4.
[141] Walbank (1957) 698-9; Brunt (1971) 628; Sage (2008) 121.
[142] Plutarch, *Marc.* 23.1.
[143] Livy 26.31.11 - *in Capitolium ad dilectum discessit.*

This does not exclude a local levy, but it is unclear how Marcellus could have overseen a local levy from the central location. Importantly, citizens were able to appeal to the consul for an exemption during the actual levy process, even though as shown above the majority of exemptions occurred during the census.[144] If the *dilectus* was undertaken on a local level this would leave the only opportunity for appeal to the consul (or a plebeian tribune) as after the initial selection stage at the point of division.[145] This would have resulted in the loss of men at this stage, leaving the legions slightly understrength before even leaving Rome. How replacements were gathered in this reconstruction is unclear. It is also questionable how a state generally considered as still a glorified *polis* at this time could have coordinated a local levy in order to ensure that the correct number of men were chosen from across different regions.[146] It cannot be denied that by the first century this problem appears to have been surmounted,[147] but there is nothing in Polybius' description or the scattered references across other ancient writers to suggest that this mechanism was in place during the Middle Republic.

Brunt has suggested that Rome's response to Hannibal's attack on Rome in 211 demonstrates that the levy was not taking place in Rome, arguing that Polybius' account of this incident undermines his levy narrative.[148] Rome encountered a stroke of luck when Hannibal arrived outside the gates, as the consuls had instructed the first army enrolled to arrive at Rome armed on that day, and were engaged in sorting and examining a second army, τὰς καταγραφὰς ἐποιοῦντο καὶ δοκιμασίας. However, this does not suggest that the levy took place outside Rome. Rather, it

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[144] E.g. [Livy], *Periochae* 48, Appian, *Hisp.* 9.49.
[145] Polybius 6.20.
[146] Scheidel (2004) 6.
[147] The Spanish, Caesarian *Lex Ursonensis* in particular demonstrates that a local levy took place at least in the provinces by the mid-first century. The law will be further discussed in III:iii.
[148] Brunt (1971) 627-8; Polybius 9.6.6.

appears that the first army were completing the final mobilisation step as set out by Polybius, when the men reassemble for a second time fully armed and ready for campaign.[149] This step is the most frequently attested by Livy.[150]

It is possible to interpret the second army as being at the selection point of the levy, but as Brunt himself points out if Polybius was referring to all the *iuniores* being present in Rome he would have expressed himself differently.[151] Polybius is explicit that it is the presence of two nearly fully mobilised armies in Rome which is lucky. Instead, it appears that the second army was reassembling for the first time, the point when they were divided into battle lines.[152] This is the stage at which examination of age and wealth, often considered missing from the account of the initial selection, took place, as this passage helps to clarify. It seems that the division was of relative age and wealth rather than a carefully calculated one earlier in the process. That the Capitol is not mentioned is a reflection of the process being discussed, which likely took place outside the *pomerium* on the *campus Martius*. Thus, as opposed to providing evidence of a levy outside Rome, the response to Hannibal's advance on Rome illustrates the later stages of legion organisation, which could be undertaken legion-by-legion, rather than all at once as with the levy.

The events put into motion by the censors in 169 have also been used by Brunt to support the local levy.[153] This was the introduction of the new oath requiring all *iuniores* to attend the levy if they had not previously served (see above) as well as ordering that all those who had served in Macedon and been discharged since 172

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[149] Polybius 6.26.2.
[150] E.g. Livy 22.11-12, 23.31.5, 23.32.2, 34.8.4-5. Nicolet (1980) 102 is wrong to suggest that this reassembly is at a local enrolment centre, see below.
[151] Brunt (1971) 628.
[152] Polybius 6.21.6-10.
[153] Brunt (1971) 633-4.

present themselves to the censors for a dismissal review. This resulted in a huge

throng of men in Rome, much greater than usual.[154] Brunt argued that the crowd's

size was unusual because men had been summoned to Rome who were usually

levied locally. Aside from the question of how such complexity could be accounted

for by local recruiters, this requires *hoc edicto* to refer to only the decree concerning

the men dismissed from Macedon. However, the narrative dealing with the censors'

action is constructed as a single block. The concluding *hoc edicto* refers to the

actions in the singular sense of 'the work of the censors'. The unusual crowd at

Rome was a result of both aspects of the censors' work. The crowd's size was in

comparison to the dwindling turnout at the *dilectus*, fuelled by the generous

exemption grants of the consuls. By interpreting *hoc edicto* in this way, the passage

becomes further support for the levy in Rome.

A final piece of evidence to be discussed is that of six commissioners being sent out

from Rome to aid in the 212 levy.[155] This is one of few examples of the levy

occurring outside Rome.[156] However, the levy's circumstances were unusual. The

commissioners appear to have enlisted any fit, free man on the spot where he was

found, *in pagis forisque et conciliabulis*. (The text's implication is that only the first

stage of the levy, selecting men to serve, was undertaken by the commissioners.

There is no reason to believe that the second stage did not occur as normal.) This

levy has much more the character of a *tumultus*, an emergency levy in which

exemptions were ignored, although Livy does not use the term here.[157] The locations

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[154] Livy 43.14.7-10 – *hoc edicto litterisque censorum per fora et conciliabula dimissis tanta multitudo iuniorum Romam convenit, ut gravis urbi tanta insolita esset.*
[155] Livy 25.5.6-9.
[156] Cf. Livy 7.25.7-9, 24.20.13, 32.26.12.
[157] Livy 7.9.6 (*tumultus Gallici causa, omnes iuniores sacramento adegit*), 7.28.3 (*tumultus, dilectus sine vacationibus habitus esset*), 32.26.12 (*sacramento rogatos arma capere, tumultario dilectu*) 34.56.11 (*tumultum esse decrevit*), 35.23.8 (*tumultariorum*), 37.57.5 (*tumltario exercitu collecto*) 40.26.7 (*tumultarios scriberet*), 41.5.4 (*in tumultu*), 43.11.10 (*tumultario dilectu conscriptos*); see

listed, particularly *fora* and *conciliabula*, are where a local levy might be imagined to occur. However, that two sets of triumvirs were specially created to perform this duty suggests that a levy outside Rome was highly unusual, the result of the Hannibalic War's extreme need and not normal practice.

Also of note are the distances given to the triumvirs. One group was assigned the area within fifty miles of Rome, and the other that beyond.[158] It is at this kind of distance that a local levy might be expected to be ordinary practice. On foot, fifty miles is approximately a two day journey, and some citizens lived more than double this distance from Rome. However, that triumvirs were sent out this far indicates that no such local organisation was in place. Indeed, any local levy would likely have also operated on a tribal basis. By the Middle Republic, members of the same tribe could live in different areas.[159] This would require a great deal of travel for those living furthest from Rome, as it is unlikely the consuls would go any great distance from the city. From this perspective, travelling a few extra miles to reach Rome itself would not have been a much greater journey.

Overall, it becomes clear from both a topographical and literary perspective that Polybius' description of the *dilectus* was not only accurate in placing the levy *in Capitolio* but that his description has not missed out a previous stage. With the demonstration that it was physically possible, the scattered literary references need not be considered anachronistic or mistaken. For the purposes of this discussion concerning Roman bureaucracy, it is significant that the holding of the levy on the Capitol required written records. The granting or recording of exemptions with the

III:iii. Golden (2013) 42-86 argues that *tumultus* often occurred without the term being used by ancient authors but can be identified by actions taken.
[158] Livy 25.5.6-9 – *alteros qui citra, alteros qui ultra quinquagensimum lapidem.*
[159] Sergia, Clustumina, Claudia, Pollia and Sabatina became divided tribes during the first half of the third century, and possibly Papina, Voltinia and Oufentina as well, Taylor (1960) 68-100.

census declaration suggests that some form of personal service record was held by Rome for each citizen.[160] Thus the lists of those liable for military service created for the *dilectus* were most likely closer in length to the totals generated from the model populations examined above (Table 1) than to the census figures. Levy centralisation was easier in an administrative sense as recordkeeping was also centralised (see V:iii). In order to examine the operation of these records in more detail it is necessary to investigate the next element of Polybius' narrative.

v: Selecting *milites*

It is with the selection of tribes and individuals to fill the legions that the use of written administration becomes clearer. Polybius describes the selection of tribes by lot followed by the distribution of men into the legions.

> …κληροῦσι τὰς φυλὰς κατὰ μίαν καὶ προσκαλοῦνται τὴν ἀεὶ λαχοῦσαν. ἐκ δὲ ταύτης ἐκλέγουσι τῶν νεανίσκων τέτταρας ἐπιεικῶς τοὺς παραπλησίους ταῖς ἡλικίαις καὶ ταῖς ἕξεσι. (Polybius 6.20.2-3)

> …they order tribes by lot one by one and summon every one as drawn by lot. From this they pick out four of the young men suitably matched in age and bearing.

The passage goes on to describe each of the four groups of military tribunes choosing in rotating turn one of the men brought up in fours.[161] Taylor suggests that the tribal lot was conducted with inscribed wooden balls shaken or swirled from a water carrier.[162] Polybius gives no indication of how tribes were allotted, but the

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[160] The question of where such records would have been gathered and stored will be addressed in V.
[161] It is outside the scope of this thesis to examine the levy in the archaic period. It is enough to state that a fifth-century tribal levy is visible in the (not unproblematic) evidence, suggesting that the use of writing in the levy dates to at least the early Republic. Cf. Dion. Hal., *Ant. Rom.* 4.16, 4.19; Livy 4.46.1; Ogilvie (1965) 604; Taylor (1957) 341; Thomsen (1980) 188; contra Gabba (1951) 251-2.
[162] Taylor (1966) 71-2 using Plautus, *Cas.* 295-428 with *Tabula Hebana* 23, Horace, *Carm.* 2.3.25-27, Lucan 5.394; Oliver & Palmer (1954) 229, 239-41.

weight of evidence provided by Taylor and lack of contradiction means there is no reason not to accept her conclusion.

The best demonstration of bureaucracy's role in the selection process is when the levy did not operate properly. In 275, on the day announced for the levy, no one appeared on the Capitol. As a result, the consul, Curius Dentatus, resorted to reading names from the beginning of the list of the allotted tribe. [163] This would have been possible only if Curius had access to a list of liable citizens, possibly recording lengths of service. [164] There is no indication that the selection of tribes did not happen as usual, suggesting that the consul was using tribal lists. As the census was conducted tribally, the creation of lists in this way is logical. [165]

Notably missing from Polybius' account of the *dilectus* is any mention of giving names or names being taken during the levy, something which recurs throughout the work of Livy. [166] When would such name calling most likely have occurred? Southern states that the names of the enrolled were recorded at the first reassembly after the oath was taken. [167] However, this seems implausible as it is unclear, in her reconstruction, how those who should have attended would have been accounted for. The situation necessitates a written list of those enrolled, although possibly this was just marked against the tribal list. The point at which each citizen was personally selected by the military tribunes is the most obvious place in Polybius' account for this to happen. Names may well have been called for the division, but at a secondary

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[163] [Livy], *Periochae* 14.3; Valerius Maximus 6.3.4.
[164] Cf. Taylor (1957) 343; Brunt (1971) 631.
[165] Appian (*Hisp.* 9.49) attests the first instance of selecting men by lot in 152. He does not give more details of the process. Like the 275 incident, it is presented as a reaction to recruitment problems and may have been an isolated case. Indeed, in reality it may have been similar to Dentatus' approach as it is difficult to imagine how the lot could be applied to such a large number. Regardless, it again demonstrates the importance of documentation to the levy.
[166] E.g. Livy 10.4.1-3, 10.25.2, 27.46.3, 37.4.3.
[167] Southern (2007) 92.

stage following the original drawing up of a legion list or similar on the Capitol. Polybius' failure to mention the taking of names is probably because he considered it too obvious to need to include.

Further, as it was at the first reassembly that the men were examined for relative age and class to be divided into lines (see II.iv), the presence of the tribal list containing this information would be prudent. Polybius implies that not only age but also experience were instrumental in this division, indicating that the tribal lists did contain this information.[168] No location for this assembly is explicitly mentioned, Polybius instead noting that a place was specified by the military tribunes.[169] As seen above, this place could be Rome, but was not automatically so. In order to have the information on hand for the division into lines, a legion list of the enrolled to be taken to the assembly place was required. It is possible that this was the same tribal list used in the first stage of the levy. On the other hand, that men from the same tribes were split across the legions indicates that separate lists were required, especially if the musters occurred in different places at different times. Thus it appears that during the levy on the Capitol, legion lists were generated from the tribal lists which included details of service length, age and property qualification.

vi: Legion size

Following his description of the selection process, Polybius noted the size of an ordinary and emergency levy. This section highlights several points of interest in the

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[168] Polybius 6.19-26 passim, especially 6.24.1. Ἐξ ἕκαστον δὲ τῶν προειρημένων γενῶν πλὴν τῶν νεωτάτων ἐξέλεξαν ταξιάρχους ἀριστίνδην δέκα This implies that many men in the *hastati*, *princepes* and *triarii* had previous experience, and perhaps had been selected due to this. The importance of campaigns served in military and political office (see II.iii) also suggests that tribal lists contained information about past service.

[169] Polybius 6.21.

discussion of both Polybius' reliability and the use of written administration in the

dilectus.

> ὅταν δ᾿ ἐκλέξωσι τὸ προκείμενον πλῆθος – τοῦτο δ᾿ ἔστιν ὁτὲ μὲν εἰς
> ἕκαστον στρατόπεδον πεζοὶ τετπρακισχίλιοι καὶ διακόσιοι, ποτὲ δὲ
> πεντακισχίλιοι, ἐπειδὰν μείζων τις αὐτοῖς προφαίνηται κίνδυνος – μετὰ
> ταῦτα… (Polybius 6.20.8)

> When they had chosen the prescribed number – that is when in each legion
> there are four thousand and two hundred foot, and sometimes five thousand,
> whenever some greater danger should manifest to them – after this…

The size of the legion described by Polybius has been used as an argument against
his reliability. Polybius is not consistent in giving the legion size. In book 3 the
'standard' size of a legion is 4000 foot and 200 horse, and the figure of 4000 foot is
again repeated later in the description of the levy.[170] However, the total of the lines
of *velites*, *hastati*, *principes* and *triarii* given by Polybius is 4200, suggesting that
mentions of 4000 are rounded from 4200. Sumner is right to consider 4200 foot and
300 horse as the standard complement implied by Polybius.[171]

Ordinary legions of 4200 foot are considered to belong to the third century. It is
generally argued that at some point during the Hannibalic War 5000-5200 became
the standard size for a legion, increasing to 6000 at times of emergency.[172] Polybius
is judged to have followed an older source, for example Fabius Pictor, without
altering it to suit his own time.[173] Allowing that Polybius had some familiarity with
the legions, Brunt attributes this error to a failure to account for casualties from

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[170] Polybius 3.107.10, 6.21.10.
[171] Sumner (1970) 67.
[172] Brunt (1971) 423, 467, 672-5; De Ligt (2007); Roth (1994) 347 is more nuanced; Toynbee (1965a)
506 is a notable exception; cf. Livy 44.21.8 for legions of 6000.
[173] Brunt (1971) 675.

battle and disease; 6000 men would appear closer to 5000, and 5000 closer to 4000, giving Polybius no reason to question or modify his source.[174]

However, there are problems with this interpretation. Firstly, Polybius was not just familiar with the legions, but had been in close contact with them and was valued as a tactician.[175] That he was involved with strategy production but unaware of the legion's operational size seems unlikely. Secondly, with the levy occurring in Rome it seems impossible that Polybius, interested in the subject, did not know or see the size of the legions created on his doorstep.[176] Finally, the losses proposed by Brunt approach 20%. Casualty figures will be examined more closely at IV:i, but it is enough here to point out that this is well above estimated averages.[177] When it is remembered that Polybius was summoned to Lilybaeum in 148 to newly formed legions who had yet to see service,[178] Brunt's interpretation becomes untenable. Polybius cannot be considered conscientious and his legion size simultaneously dismissed.

Despite these objections, the consistency within Polybius' work has not been enough to convince modern scholars that 4200 remained the standard legion size in the second century. Legions mentioned by Livy from the Hannibalic War to the end of his extant work were of 5200 more often than 4200.[179] However, this in itself does not demonstrate that 5200 had become the second-century standard legion size. Livy

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[174] Brunt (1971) 675.
[175] Walbank (2002a); see II:i.
[176] See II.iv.
[177] Rosenstein (2004) 109.
[178] Polybius 36.11.1.
[179] E.g. Livy 21.17.2-3 (4000 foot, 300 horse), 23.34.13 (5000 horse, 400 cavalry), 26.28.7 (5000 horse, 300 foot) , 29.24.11-14 (6200 foot, 300 horse), 32.8.2 (4000 foot, 300 horse), 32.28.10 (6000 foot, 300 horse), 35.41.5 (4000 foot, 300 horse), 39.38.10 (4000 foot, 300 horse), 40.1.5 (5200 foot, 300 horse), 40.18.5-6 (5200 foot, 300 horse), 40.36.7 (5200 foot, 400 horse), 41.9.2 (5200 foot, 300 horse), 42.31.2 (6000 foot, 300 horse), 43.12.3-6 (6000 foot, 250 horse; 5200 foot, 300 horse).

makes no mention of a standard size legion in books 21-45. Indeed, that all the legion sizes which Livy states are not 4200 may indicate the opposite. Rather than indicating the normal size of a legion, it may demonstrate that these legions were unusual and thus their size explicitly stated in order to give a fuller picture. The sum of Livy's legions shows that legions above 5000 had become more common than not, but it does not follow that 5200 was the standard size of a legion. Polybius may have recorded a size less utilised by the time he was writing, but nonetheless still the accepted norm.

Importantly, it was the senate which set the number of men to be enrolled and legions to be created each year. Weigel has highlighted that these deliberations do not occur as often in the sources as recruitment and the declaration of war.[180] Nonetheless, it is attested often enough to make it clear that legion size was prescribed by the senate.[181] The notion of a 'standard' legion is then perhaps a slight misnomer; rather, Polybius suggests that there were 'standard sizes', not a single standard size. The numbers recorded by Polybius are thus two of the standards applicable for the third and second century, and perhaps earlier. Roth suggests that 5000-5200 had become the customary legion size in the second century.[182] The sizes attested by Livy do indicate this, but Polybius' record should not be overlooked in suggesting that the traditional 'average' size of a legion remained 4200. It does not demonstrate that Polybius followed an older source without thought for his contemporary source.

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[180] Weigel (1986) 334.
[181] See e.g. n.179.
[182] Roth (1994) 347.

As noted above (II:i), this is even clearer when the construction of Polybius' remarks is examined. As is emphasised in modern editions and translations, the section giving the number in a legion can be removed from the text without disrupting the narrative, grammar or syntax.[183] This suggests that even if Polybius did base his description on an older source (which the author hopes this discussion has demonstrated is not a necessary conclusion), there is no need to believe that he did so blindly. The whole narrative can function without it, bar a single reference to 4000.[184] This in itself shows that Polybius was creating a coherent whole. It is clear that Polybius was envisaging a levy of four legions of 4200 men each, but his method could easily be applied to different sized legions, as the note on the unchanging number of *triarii* demonstrates.[185] Indeed, as a writer aware and interested in his surroundings, Polybius demonstrates that contemporaneous levies of 4200 and more were occurring and familiar to him.

A point almost too obvious to make is that filling the prescribed legion size required some record of the number enrolled. This in itself did not necessitate more than a tally marked by the military tribunes as they examined and selected each man. However, it is nonetheless remarkable as it demonstrates that it was impossible to create a legion in the manner described by Polybius, or indeed of any preordained size, without at least a rudimentary record taken during the process. Although there is no explicit supporting evidence, it is not unreasonable to imagine that it was from this kind of record that the administration of the *dilectus* developed to become the important fixture it was by 275. It appears that records became so fundamental to the process that it was not consciously considered by Polybius in his narrative. This

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[183] Paton, Walbank & Habicht (2011) 350-1; Waterfield (2010) 386.
[184] Polybius 6.21.10.
[185] Polybius 6.21.10.

demonstrates that the written element had developed into an integral part of raising Roman legions.[186]

vii: Paperwork and the *dilectus*

Overall, it has been demonstrated that Polybius' military digression in book 6 is to be considered a reflection of the contemporary situation in Rome. Issues such as the Capitol's capacity compared to the population liable for military service serve to demonstrate that Polybius' narrative can be accepted as reflecting his contemporary situation. As this is the major element highlighted as implausible by modern scholars, the importance of such a demonstration should not be ignored. Rather than an at best anachronistic and at worst entirely implausible account written by an uninformed author, Polybius provides a detailed and informative narrative of military structures in place in the second century. The notes on changes in form indicate that the account can also be used in the discussion of the third century. When considered in line with the mentions of the *dilectus* by Livy, it is clear that Polybius' narrative should be accepted in its entirety. This acceptance of Polybius' credibility opens an interesting window onto both the existence and functioning of a military bureaucracy.

The complex nature of the selection process of the *dilectus* as understood from the evidence of Polybius and Livy appears to presuppose the existence of written administration in a reasonably complex form. It may be questioned whether it is right or safe to assume that Republican Romans were operating a bureaucracy of such a nature. However, given the apparent complexity of the written administration needed to deal with the processes in the evidence, it is difficult to understand what

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[186] As Polybius was writing primarily for a Greek audience, it is not going too far to suggest that this was also the case for Greek levies.

other method might have been utilised to keep this system in order. The census itself is an accepted example of bureaucracy during the Republic supported by substantial evidence and accepted by modern scholars as an important record despite the lack of any extant returns or rolls. It is not unreasonable, then, to posit other similar elements of bureaucracy interrelated with the census which aided the state in organising issues which were also the concern of the census.

The issue of exemptions in particular, coupled with an expected normal service term of only six years, highlights the level of bureaucracy. Exemptions took place not only during the *dilectus* as is commonly accepted but also during the census. Furthermore, the levy appears to have used tribal lists either directly from the census or lists of the liable derived from it. This interaction of the two events and sets of magistrates indicates a level of bureaucratic interconnection in the Middle Republic perhaps not always appreciated by modern scholars. Such record keeping indicates a state concerned with both understanding its realistic manpower and not overburdening its citizens with military duty. This was probably motivated in part by pragmatic issues, as mutiny over long service and enrolment problems were not unknown. However, it is nonetheless noteworthy that the system was organised in such a way that it was largely successful in preventing these problems in the first place; avoidance of unrest was a fortunate consequence of the administration rather than a primary force behind its creation. Nonetheless, the application of military bureaucracy was the important factor in managing this.

Significantly, it has been demonstrated that it is possible to trace a level of administration similar to that found in Polybius and Livy to the early third century. That it was in this form by at least 275 suggests that it had developed from a much older origin. Furthermore, the terminology used by ancient authors in connection

with the levy suggests that the involvement of written administration was so close to military organisation as to be indistinguishable, again indicating an ancient link. The nature of the army's composition may have changed, but the selection of soldiers became important as soon as a size was set. When the Roman army became organised in this way is uncertain, but it is reasonable to date the genesis of military bureaucracy to this period. Indeed, ancient authors themselves point out the very earliest form of it: the first census. Written administration, however simple its origins, was a fundamental and entwined part of the Republican levy

The demonstration that written administration was not only present in the Mid-Republican levy but an integral part of it allows the scope of this investigation to widen. Having established the likely existence of records such as tribal lists of the liable, it is now possible to raise further questions such as how far this bureaucracy extended across an individual's military career and how detailed the record-keeping was. Exactly what would have been recorded on the tribal lists, and did the Republican Romans create anything similar to what would today be recognised as a service record, whether as a separate document or not? The emerging importance of the connection of the *dilectus* and the census requires that the discussion of Roman military bureaucracy continue with an examination of the role of the census in the recording of military service.

III: The census and centralised military bureaucracy

The *dilectus* was not the only aspect of military organisation which required a record of liable and available men. More generally, it was a concern of Rome to have a reasonably accurate manpower record in order to mount the campaigns and form the legions desired by the senate. The aim of this chapter is to demonstrate that Rome continued to track her manpower after the enlistment stage. It will examine the functions of this record keeping in Rome, that is, the role of the census and more extraordinary methods of gaining accurate information about potential manpower in emergency situations. It has been repeatedly mentioned that the census was originally, and in the Middle Republic remained to an important extent, a military review. As such, the census is an important institution to understand in order to gain a greater view of military bureaucracy's nature in this period. It is widely recognised that Rome enumerated the men liable to fight for her through the census.[1] Thus, establishing how this was achieved is an important step in understanding Rome's military bureaucracy. It will be argued here that this was accomplished by regular citizen declarations of military service at the census. Further, it will be demonstrated that Rome was able to adapt to the situation at hand in order to keep her manpower records as accurate as possible, whether during long service abroad or in more immediate emergency situations.[2]

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[1] E.g. Bourne (1952) 130, 133; Toynbee (1965a) 445, 453, 462; Brunt (1971) 21-4.

[2] The entire census system will not be examined, as it has no bearing on the specific facet of military record under discussion. For example, the property qualification is not discussed because the exact wealth necessary to serve in the army had no effect on how the census itself functioned. Indeed, the author follows Rich (1983) 316 in believing that without further discoveries the discrepancies in the evidence mean it is impossible to draw strong conclusions about the level of the property qualification at any point in the Republic. Contra e.g. Marquardt (1891) 80; Brunt (1971) 402-6; Marchetti (1976) 154-6; Gabba (1976) 2-7.

i: Census declarations

Censors were able to grant exemptions from service on the basis, among other things, of *emerita stipendia*, as were the consuls if a citizen appealed during the *dilectus* (see II.iii). Further, both Polybius and the *tabula Heracleensis* state that there was a minimum service requirement for holding a magistracy.[3] This ability to grant exemptions based on *emerita stipendia* leads to the suggestion that the census record held a notation regarding the campaigns served by each man. This section aims to add to the conclusions of the preceding chapter, demonstrating that the work of the censors included noting the campaign years served, and that the census declaration included a statement of, at the very least, how many campaign years had been served by each man over 17. This is a fundamental issue to establish if it is to follow that the census was the centre and beginning of tracking military manpower in Rome.

The proceedings of the 169 census are a good place to begin the discussion. Livy records that the census revealed a large number of absentees from the Macedonian legions, '*qui quam multi abessent ab signis census docuit*'.[4] The language used by Livy here is emphatic. It is difficult to suggest that *docuit*, from *docere* meaning to teach, show or demonstrate,[5] with *census* as its subject does not refer to a record revealing the situation. That Livy is this emphatic concerning the role of the census and the clarity of the conclusions which could be drawn from it indicates that the census was a detailed, carefully kept record.

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[3] Polybius 6.19.1-4 (ten years of military service), *Tabula Heracleensis* ll.98-107 (three years of service in the cavalry or six years on foot), see II.iii.

[4] Livy 43.15.7 - 'the census demonstrated how many were absent from the standards'.

[5] *OLD* s.v. *doceo*.

However, the censors of 169 were already concerned with the situation regarding the Macedonian legions; Livy notes in particular the requirement that those with *potestas* over the men in the Macedonian legions appear to the censors in person.[6] It is possible that Livy is referring to the census process revealing the situation here rather than to the documents themselves. This cannot be entirely disproved, but several factors weigh against it. The number of men required to see the censors themselves may have been slightly higher than the norm, but (as will be seen below) this number was not in itself indicative of absentee numbers. While the text does not give an exact figure, and could simply imply a sense of scale, 'how many' suggests that the censors themselves had a specific figure even if Livy (or his source) chose not to include it. Further, this number would have been relatively small compared to Rome's entire population and eligible manpower, and thus not too difficult to calculate. Finally, as will be seen in IV, it was in the interest of magistrates in Rome and on command to enumerate as accurately as possible men on campaign and in each legion. Thus, on balance, it can be concluded that Livy's account demonstrates that the census as a record revealed clearly to the censors what they had already suspected concerning the numbers absent from the Macedonian legions.

This has some interesting implications. Firstly, it suggests that the censors had a record to indicate who should have been serving with the legions to cross-check against those recorded in the census. This may well have been a copy of the legion list proposed in the previous chapter. Secondly, it demonstrates that military service was a requirement in the census declaration. There is no need to follow Briscoe in concluding that the censors did not know who had been released from their term or

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[6] Livy 43.14.7-10.

had not fulfilled their obligations.[7] The problem addressed by the censors was not unauthorised absenteeism, but the premature discharge of men by politically motivated generals. Strictly speaking, all the men had been released from their terms, and had thus fulfilled their obligations.[8] The censors wished to return those, in their eyes, prematurely discharged. Indeed, the statement that those found to be prematurely discharged were given thirty days to leave Italy indicates that the censors allowed those who had legitimately gained *emerita stipendia* to return home.[9] Such a conclusion would only have been possible had the censors possessed a record of service with which to compare the declaration given by the dismissed men or their *patresfamilias*. Men who believed themselves legitimately dismissed had no reason to lie to the censors about their condition, but the censors could only have judged the situation if they had information beyond that given in that year's declarations.

What was the record which allowed the censors to act in this way? The clearest evidence of what was contained in census declarations is provided by the *tabula Heracleensis*. Care must be taken in using this source as the tablet is Caesarean and thus from after the period being dealt with in this discussion.[10] While the exact date which should be attributed to the census measure is disputed, modern scholars agree that it dates from no earlier than 88.[11] Further, the tablet represents a period when the census was taken locally, which, as will be seen (III:ii), was not the case in the

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[7] Briscoe (2012) 438.

[8] Livy 43.14.7 – *multos ex Macedonicis legionibus incertis commeatibus per ambitionem imperatorum ab exercitu abesse.*

[9] Livy 43.14.8-10. This section of the description of the actions of the censors seems to suggest that the review of discharges was a more general one than simply for the Macedonian absentees, but its actions would also have applied to them.

[10] See II.iii for a more detailed discussion of the limitations of the *tabula*. These are taken as understood here.

[11] E.g. Hardy (1914) 85; Reid (1915) 237; Toynbee (1965a) 457; Brunt (1971) 522; Nicolet (1980) 61; Lo Cascio (1990) 308, 312-3.

Middle Republic. Nevertheless, it is still possible to extract relevant data from the inscription. Frederiksen suggests that the tablet represents the raw material for a municipal charter which would ordinarily have been tailored to fit the location.[12] If correct, and the reference to the Roman model in the text suggests he is, the record is extremely significant as it indicates the process across Italy and possibly the entire empire. Moreover, Rome was slow to change processes; thus there is no reason to believe that, while the census recording location had changed, the required form was substantially different, if at all, from that of the previous century. With these concerns in mind, the *tabula Heracleensis* can be used to shed light on the Mid-Republican census declaration.

According to the *tabula Heracleensis*, the designated magistrate was to receive under oath 'their names, their *praenomina*, their fathers or patrons, their tribe, their *cognomina*, and how many years old each of them shall be and an account of their property, according to the schedule of the census.'[13] Crawford *et al*. suggest that requiring the *nomen* rather than *praenomen* first in the declaration indicates that the census was performed in alphabetical order, providing as a comparison a Flavian list of *iuniores*.[14] This is a tempting theory, as it further supports the notion of an organised and complex bureaucracy. Deliberate organisation by name would suggest a record which could be easily accessed and checked for issues such as granting exemptions and military service in between *lustra*. During the Middle Republic this organisation would likely have been by tribe rather than by *municipium* as in the tablet. However, it cannot be irrefutably stated that the lists

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[12] Frederiksen (1965) 197.
[13] *Tabula Heracleensis* ll.146-7 (trans. Crawford *et al*, (1996) 377) – *eorumque nomina praenomina patres aut patronos tribus cognomina et quos annos quisque eorum habe<bi>t et rationem pecuniae ex formula census.*
[14] Crawford *et al*. (1996) 389 using *CIL* VI.200.

were organised in this alphabetical manner. There is no Mid-Republican evidence either in support or against. It must be concluded that, however tempting the alphabetical hypothesis, the *tabula Heracleensis* only demonstrates the level of detail required for identification, not the broader method of composing the census.

The *formula census* does not include a mention of service length, in apparent contrast with the hypothesis proposed here that the declaration routinely included military service details. However, the *formula census* was sent from Rome,[15] allowing for the presiding magistrate in Rome to add other criteria as necessary. This suggests that the *tabula*'s formula is the basic or usual census form, but that this form was not immutable. It also suggests that recording service campaigns was not usual, apparently demonstrating that questions regarding military service were not a regular feature of the first-century census.

On the other hand, first-century army recruitment, especially during the Civil Wars, became much more like that seen in the extraordinary circumstances of 212 when commissioners enrolled men as they came across them.[16] The property qualification had also become much less important.[17] Consequently, it is perhaps less surprising to see the number of campaign years served missing from the Heraclaean law. Indeed, perhaps a statement of age had become enough to signify eligibility for the army, although there is no direct evidence for this. The voluntary and more emergency nature of military service resulted in age being the only criterion for

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[15] *Tabula Heracleensis* ll.147-8 – *quae Romae ab eo, qui tum censum populi acturus est, proposita erit*. 'Which will have been posted at Rome by him who is then about to conduct the census of the people'.
[16] Livy 25.5.6-8, cf. e.g. Appian, *BCiv.* 3.40.
[17] Marius' volunteer army of 107 should not be viewed as the watershed moment that it often is. The use of infantry volunteers is attested by Livy as early as 295 (Livy 10.25.1), and in 205 Scipio Africanus took an army of volunteers to Africa when refused permission to levy more troops (Livy 28.45.13-14). Marius' army may have been notable for the number of men below the property qualification, but was in no way a huge break from the norm (cf. Gabba (1976) 11-12). Nonetheless, it is indicative of the increasing use of poorer volunteers over traditional recruitment in the army.

eligibility. Moreover, the lack of a full census between 69-29 indicates that census records may well have not been kept up to date, reducing and perhaps entirely removing the census' role in both recruitment and tracking manpower. Thus, while the tablet does illuminate facets of the organisation and taking of census declarations unavailable elsewhere, these conclusions cannot be fully accepted without also examining evidence relating directly to the Middle Republic.[18]

The Hannibalic War provides several illuminating examples regarding the taking and organisation of the census. The censors reduced *iuniores assidui* (in 214) and *equites* (in 209) who had not served during the war to the status of *aerarii*, 'tax payers'.[19] Botsford argued that originally degradation to the *aerarii* was exactly as stated, a removal from the tribes and placement into a special tax payer category. After 304, when the lower classes, *humiles*, were limited to the four urban tribes,[20] the punishment appears to have come to mean movement into one of the urban tribes and the aerarian class within it. This class probably voted with the proletarian century, significantly reducing the political power of men moved to this category.[21] Lintott agrees with this view, highlighting that it was impossible for a censor to remove a citizen from the tribes.[22] The language used by Livy in this instance appears to support this interpretation. '*Tribuque omnes moti*' allows for flexibility in the translation of *tribu*, but on reflection the singular, rather than the plural, ablative suggests a translation of 'all were removed from their tribe', allowing for a move

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[18] It appears a problematic contradiction that the *tabula* mentions military service as a criterion for holding office but does not mention a method for its calculation. However, as the apparent contradiction was not problematic for the tablet's author, and because this reflects a period outside the study's scope, there is no need to dwell on this issue further.

[19] Livy 24.18.7-8 – *nomina omnium ex iuniorum tabulis excerpserunt qui quadrienno non militassent, quibus neque vacatio iusta militiae neque morbus causa fuisset. et ea supra duo milia nominum in aerarios relata tribuque omnes moti*; Livy 27.11.15.

[20] Livy 9.46.14.

[21] Botsford (1909) 62-5.

[22] Lintott (1999) 118 using Livy 45.15.3-7.

into a different tribe. If Livy had meant that the men were removed from the tribes entirely the plural would be required. Being reduced to the *aerarii* was a change in census rating and tribe, and thus where the men were recorded, but not removal from the tribes altogether.

More important here is how this change was effected. Livy describes the censors as picking out offenders from the table of *iuniores*, '*nomina omnium ex iuniorum tabulis excerpserunt*'. The *tabulae iuniorum* appear to be derived from the census and correspond with that proposed in the previous census as organised by tribe (II:v).[23] The use of *excerpo* here carries the double meaning of both selection and removal,[24] indicating that as well as identifying the individuals, the censors also removed them from this list. Further, the ability to identify men who had not served since 218 without an exemption suggests that the *tabulae*, and thus the census list from which they were derived, included a service record. For the 214 example, it is possible that this information was gained purely from the census declarations of 214, but given the crisis of 216 and subsequent recruitment problems it seems unlikely that those aware that they owed service volunteered the knowledge when they had failed to enlist. Thus it appears that a more long-term approach to record keeping was required to keep track of Rome's manpower. This is confirmed by the ability of the censors to do the same in 209.

The year 209 also provides another illustrative example of the functioning of the census, on this occasion with regard to the *equites*. During the census, the survivors of Cannae with a public horse had it removed, and were deemed to owe ten years of

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[23] Cf. Bourne (1952) 133.
[24] O*LD* s.v. *excerpo.*

cavalry service.[25] At each census, holders of a public horse presented themselves to the censors and recounted their deeds.[26] This was not a review of all those who reached the property qualification for cavalry service, but an elite group honoured with a horse at public expense. The existence of *equites* serving on their own horses is attested in the early fourth century when volunteers served as cavalry at the siege of Veii.[27] The continuation and expansion of a group financially able to furnish their own mounts is implied in a speech of Cicero from 76. Cicero referred to C. Cluvius as an *eques* 'if you consider him from the census',[28] indicating that the two groups were not one and the same. Wiseman points out that Cicero is most likely using the term '*eques Romanus*' precisely.[29] Coupled with the evidence of cavalry at Veii there is no reason that this definition and the group it refers to should not also apply to the period under investigation. Thus the punishment ordained in 209 was only for the surviving cavalry *equo publico*, reflecting the higher esteem in which they had been held.

Aulus Gellius expressed some surprise that Cato the Elder considered the loss of a public horse so disgraceful when it was not accompanied by a loss of equestrian status (which was determined by wealth).[30] Nonetheless, Cato's interpretation is

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[25] Livy 27.11.14 - *dena stipendia equis privatis facerent* 'they would make ten service years with private horses'
[26] Plutarch, *Pomp.* 22.4-6. Plutarch describes the review as at the end of service, but Livy refers to the censors examining the *equites* after the main census, Livy 29.37.8, (implied) 27.6-11. There is enough ambiguity in Plutarch's description to interpret this passage as meaning that Pompey entered the forum when those to be discharged were being reviewed rather than that it was only those to be discharged who gave a full account of their service.
[27] Livy 5.7.13 – '*tum primum equis suis merere equites coeperunt*'.
[28] Cicero, *Rosc. Com.* 42 – '*quem si tu ex censu spectas, eques Romanus est*'.
[29] Wiseman (1970) 74. Equestrians were registered in the census with the rest of their tribe. As Wiseman highlights ((1970) 68), to be granted a public horse at the review the censors first needed to know that individuals met the property qualification, requiring all to be registered in the census proper. The *transvectio* as described by Plutarch was a separate review carried out by the censors relating specifically to a designated role, much as was the review of the senate roll. However, the conclusions drawn from the *transvectio* regarding the use of lists by the censors are still valid for this discussion because the list of those with a public horse was ultimately derived from the census and interacted with it much in the same way as the *tabulae iuniorum*.
[30] Gellius, *NA* 6.22.3 citing Cato.

supported by the fact that only those cavalry *equo publico* suffered this punishment following Cannae. Further, the men under consideration in 209 had already been sent to Sicily for the duration of the war.[31] A census had been completed between Cannae in 216 and 209, indicating that this was intended as a disgrace by censors who felt their predecessors had been too lenient.[32] Indeed, it is to be expected that those serving *equo publico* were those most likely to continue to hold political office. The removal of their previous service would have seriously delayed if not obliterated their chances of gaining a magistracy.

In terms of census records, the punishment meant that in effect the previous years these men had earned towards their *emerita stipendia* were expunged from their records. It is not clear whether the deeds declared by *equites* at the review were recorded, but, given the stigma against Cannae survivors in particular, their loss of status may have been made clear. However, that the men were once again required to provide ten years' service suggests that a mark to negate their previous service was made on the main census list, as well as them being struck from the list of those *equo publico*. Again it seems that long-term record-keeping was required to calculate service and maintain an accurate record to be utilised by the censors. For punishments such as this to have been effective, or even realistically possible, the censors must have been able to review the service history of citizens at the census. In addition, the case of the *equites* in 209 once again demonstrates the interaction of lists derived from the census list with the main census, as can be seen with the *tabulae iuniorum*.   The relative complexity of Rome's military bureaucracy with the census as its linchpin is further revealed.

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[31] Livy 23.25.7.
[32] Livy 24.18.

Finally, the few instances where the ancient writers provide an insight into individual records support a military record being kept on the census in some form. In 186 the senate decreed that the man who uncovered the Bacchanalia scandal was to be treated as though his military service was complete.[33] Without a permanent record of this grant easily accessible to both censors and consuls holding the *dilectus* this reward would have been essentially meaningless. The obvious place for this to be made is on the census record. As Livy uses the term '*emerita stipendia*', it is not unreasonable to conclude that the same entry was made for this individual as for those who reached it by the traditional method. Thus, it appears that such records were kept on the census and, from that, included in documents derived from the census declarations.

The issue of how the records were kept, and by whom, will be addressed in detail in V-VI, but a brief mention needs to be made here. Particularly in the example from 214 above, but also generally, there is an issue of what occurred during the years between censuses. In 214, the previous census had been before the Hannibalic War broke out. That the censors were nonetheless able to punish those who had not served suggests that the records were in some way corrected in the intervening years. Several modern scholars have reached this conclusion.[34] If this emendation occurred, it demonstrates that the military bureaucracy possible in Mid-Republican Rome was a great deal more complicated than commonly allowed. Moreover, the censors were able to establish not only how many years had been served but when.[35] Importantly here, it indicates a record with more detail than just the number of years served. Together with the content of the census declarations, legion lists and

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[33] Livy 39.19.4.
[34] Bourne (1952) 133, 135; Suolahti (1963) 45; Toynbee (1965a) 448.
[35] See VI:iii.

previous census records could be utilised by the censors to create a quite detailed record of the military service history of each Roman citizen. The census formed the central pillar of this, as it was the document from which other records held by the censors were ultimately derived.

ii: Census registration on campaign

The previous section has demonstrated that Rome had a military bureaucracy able to track each man, but was reliant on the census as its primary record. This raises a difficult issue: were citizens away from Rome on campaign included in the census? The traditional position, particularly espoused by Brunt,[36] is that legions outside Italy were not included in the census; the missions sent out by the censors in 204 were extraordinary.[37] Brunt based his calculations of Roman and Italian population size and his demographic reconstructions on this argument.[38] This section aims to demonstrate that, while 204 was an extraordinary case, roughly 50% of those on campaign were nonetheless registered at Rome. Coupled with legion lists, Roman military bureaucracy could still function with several thousand fighting men abroad.

Before examining whether and how men on campaign were registered in the census, the usual census process must be established. The *tabula Heracleensis* suggests that all citizens had to present themselves to designated magistrates in their local *municipium*.[39] However, as mentioned above (III.i), the *tabula* cannot be used as direct evidence for the second century. In 204 some Latin communities did use the same census form as Rome and sent their returns to Rome, but these communities

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[36] Brunt (1971) 70-1; see also e.g. Frank (1924) 330-1.
[37] Livy 29.37.5; Suolahti (1963) 34.
[38] Brunt (1971) 61-83.
[39] *Tabula Heracleensis* ll.145-6 – *omnium municip{i}um colonorum suorum queique eius praefecturae erunt, q(uei) c(iues) R(omanei) erunt, censum ag<i>to.*

did not hold Roman citizenship.[40] Rather, it appears that in 204 Rome was

attempting to stamp her authority on recalcitrant colonies by forcing the essentially

foreign *poleis* to conform to Rome's institutions. Toynbee suggested that Rome was

treating the twelve Latin colonies like *municipia* in 204.[41] The comparison is

somewhat misleading; *municipia* may have begun as communities of *cives sine*

suffragio[42] and many had the latter status in the Middle Republic. While these

communities did provide a military contingent, the first-century *municipia* did not

have the same status.[43] *Cives sine suffragio* appear to have disappeared prior to the

Social War, becoming full citizens.[44] Thus the citizens of Heraclea were full Roman

citizens. Moreover, the inscription's proposed dating (see III.i) suggests that a local

census of *municipia* only began after the Social War.[45] Thus, neither the *tabula*

Heracleensis nor the treatment of the Latins in 204 provide evidence for a regular

localised census in the Middle Republic.

Modern scholars largely agree that the registration of families was undertaken by the

paterfamilias; that is, only men *sui iuris* had to present themselves to the censors.[46]

Whether directly or indirectly, Livy, Dionysius and Gellius all provide evidence of

the *paterfamilias*'s role at the census.[47] Livy's example occurs during the 169

census, when soldiers absent from the Macedonian legions were of particular

concern. Here, the censors requested that the men with *potestas* over these soldiers

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[40] Livy 29.15.9-10.
[41] Toynbee (1965a) 221.
[42] Brunt (1965) 93 n. 21.
[43] Lo Cascio (1990) 312.
[44] Brunt (1971) 20.
[45] Cf. Suolahti (1963) 36.
[46] E.g. Toynbee (1965a) 445; Brunt (1971) 15; Nicolet (1980) 68; Lintott (1999) 117-8; Briscoe (2012) 434. It is not necessary here to discuss whether those declaring to the censors included widows and orphans, who were *sui iuris*, or if their declarations were made by guardians. Neither widows nor orphans (by definition under 17) could serve in the army.
[47] Livy 43.14.7-10; Dion. Hal., *Ant. Rom.* 4.14.6; Gellius, *NA* 4.20.3 (indirectly by the mention of the declaration of a wife); Cicero, *Leg.* 3.7.

present themselves to the censors. This could be seen as evidence of a second-century local census such as that in the *tabula Heracleensis*, but need not be. Rather, it is a requirement that the *patresfamilias* speak directly to the censors rather than an official assisting the censors (see VI:iii). Likewise, the formula given with the census figure, *censa sunt civium capita,* 'the heads of the citizens were counted' might imply that every man over 17 was required to attend the censors in order to have his head counted in person.[48] However, this formula refers to the published census figure, which, while it included all these men, did not require them all to be presented in person. Rather, this number was generated from the returns provided by those *sui iuris*. The *tabulae iuniorum* discussed above demonstrate that the censors were capable of creating new lists from the census. Creating a total of all those over 17 need not have been any more complicated than generating the *tabulae iuniorum*.[49] Thus, during the Middle Republic the census declaration was given by the *paterfamilias*, requiring only him to attend the censors, and not those *in potestate*.

Before continuing, a brief note needs to be made concerning changes made to the census process by the censors in 169. As mentioned previously (II.iv), the censors in this year instituted a new question under oath, requiring any male citizen under 46 who had yet to serve to swear that he would attend the *dilectus*.[50] There can be little doubt that this oath had to be sworn in person. As such, the oath's establishment required all those under 46 who had not served, whether *sui iuris* or *in potestate*, to attend the censors. However, this is not of concern in this discussion, as those on campaign, by virtue of their service, would not be part of this group.

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[48] E.g. Livy 35.9.2, 38.36.10; [Livy], *Periochae* 14.5, 20.15, 48.2.
[49] Several modern scholars agree that lists for different needs were generated from the census declarations: e.g. Bourne (1952) 133; Suolahti (1963) 44; Toynbee (1965a) 445, 453-5; Hin (2008) 214.
[50] Livy 43.14.5-6.

Having established the usual convention for census declarations, the method for the army on campaign can now be examined. The best evidence is provided by the census proceedings of 204. In this year the censors sent commissioners to the provinces to establish the numbers serving with the legions. Livy is explicit that this number was then included in the census total.[51] Toynbee argued this was the first time that soldiers on active duty were included in the census.[52] On the other hand, he himself points out that prior to the Hannibalic War campaigns rarely lasted longer than about seven months, meaning that all the soldiers were home at some point during the eighteen-month censorship.[53] On this basis, the inclusion of men on active service was new and unusual precisely because previously it had not been required. Only the Hannibalic War's extraordinary duration precipitated this measure because Rome was losing track of her manpower. However, De Ligt has demonstrated that campaigns ending in December or January rather than October and even winter garrisons were not uncommon from the second half of the fourth century.[54] Short campaigns do not entirely rule out Toynbee's hypothesis as the censorship period allowed mens' inclusion. However, winter garrisoning (attested as early as 342[55]) does not allow for later registration. Nonetheless, it is likely that under-registration like that seen in the Hannibalic War was unprecedented as the number on campaign in the fourth and third centuries was much lower.

Senatorial concern in 204 over under-registration is demonstrated by the unusually low 209 census figure of 137,108.[56] This figure has been amended by scholars

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[51] Livy 29.37.5-6 – *lustrum conditum serius quia per provincias dismiserunt censores, ut civium Romanorum in exercitibus quantus ubique esset referretur numerus. censa **cum iis** ducenta quattuordecim milia hominum* (author's emphasis).
[52] Toynbee (1965) 449.
[53] Toynbee (1965a) 449.
[54] De Ligt (2007) 119-20.
[55] Livy 7.38.4.
[56] Livy 27.36.6-7.

attempting to recreate Roman and Italian demography,[57] but Frank argued for its

acceptance as transmitted as the figure recorded by the censors.[58] It is not a realistic

estimate of the Roman male adult population; it is demographically impossible for

the population to fluctuate so violently over such a short period. Rather, the 209

census figure reflects what the censors were able to achieve during their magistracy.

Thus it seems that Suolahti was correct to conclude that the missions of 204 were an

exceptional case in a time of war.[59]

However, what made the mission of 204 extraordinary requires further consideration.

It is possible that 204 was unusual because commissioners were sent to the legions

rather than because totals were obtained from the legions. The frequent mention of

dispatches to and from legion commanders opens the possibility that a list of living

soldiers more accurate than the legion lists held by the censors could have been sent

to Rome.[60] This is made more likely by events following the Battle of Cannae in

216. Livy records that the surviving consul, Varro, joined his cavalry with most of

the surviving foot and sent a dispatch to Rome. On receipt of this, the senate were

able to inform the citizens of the deaths at Cannae.

> *tum demum litterae a C. Terentio consule allatae sunt: L. Aemilium consulem*
> *exercitumque caesum; sese Canusi esse reliquias tantae cladis velut ex*
> *naufragio colligentem; ad decem milia militum ferme esse incompositorum*
> *inordinatorumque* […] *tum privatae quoque per domos clades volgatae sunt.*
> (Livy, 22.56.1-2, 4)
>
> Then at last a letter was sent from Gaius Terentius [Varro] the consul: Lucius
> Aemilius [Paulus] the consul and the army had fallen; he himself was at

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[57] E.g. Brunt (1971) 13.
[58] Frank (1924) 330.
[59] Suolahti (1963) 34.
[60] E.g. Polybius 10.19; Livy 22.11.6, 22.24.14, 22.30.7, 22.49.10, 22.56.1-2; Plutarch, *Fab.* 3.4, 7.4;
Appian, *Hisp.* 9.49, *Syr.* 7.39.

Canusium collecting the remnants of such a great disaster as if from a
shipwreck; there were about 10,000 soldiers, disorganised and not in units
[…] Then each private disaster was made generally known through the
houses.

This suggests that Varro had included a list of his men in the letter to the senate.
This is supported by a letter previously mentioned by Livy. Appius and Scipio were
the military tribunes selected to lead the c.4200 survivors at Canusium before it was
discovered that Varro had survived with some cavalry and an additional 4500 men.[61]
Learning of Varro's presence, the two sent him a letter detailing the foot and horse
under their command.[62] As discovering this information involved a head count
because the men were not in their ordinary units, it is possible that Appius and
Scipio discovered not only how many but who had survived the battle and fled to
Canusium. Even if this information was not included in their initial letter to Varro, it
would not have been difficult for Varro to include it in his letter to the senate. A
similar review of Varro's men could have been added to the list compiled by the
military tribunes with no more difficulty.

On the other hand, it is possible to interpret the letters of Appius and Scipio and of
Varro as purely concerned with numbers, as a simple reading of Livy suggests. Both
the consul and senate wished to understand the new tactical situation. The senate
organised missions of light horse to find individuals drifting back to Rome in order
to obtain information.[63] A dictator was quickly appointed.[64] However, this action
itself provides greater insight into the detail and concern demonstrated by Varro. A
dictator had to be nominated by a serving consul. Sumner has suggested that Varro

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[61] Livy 22.53.2, 54.1.
[62] Livy 22.54.5 – *Appiusque et Scipio, postquam in columen esse alterum consulem acceperunt, nuntium extemplo mittunt, quantae secum peditum equitum copiae essent.*
[63] Livy 22.55.4.
[64] Livy 22.57.9.

did this in his letter to the senate, following the precedent of L. Veturius'

appointment in the previous year.[65] Moreover, the negative reputation of Varro

fostered by ancient historians seems to hide a competent and popular individual.[66] It

has been repeatedly pointed out that despite the apparent problems with the consular

elections for 216, Varro was the only competent plebeian candidate with a proven

track record.[67] Indeed, he held other offices following Cannae.[68] It is not plausible

that a hated, distrusted and incompetent figure was given repeated command.[69] It

thus follows that updating Rome's manpower records as quickly as possible may

have been a concern for Varro and that he could have included a list of the men with

him in his dispatch to Rome.

However, this is all theoretical. Better evidence for such a list is provided by the

action of the senate once the letter had reached Rome. As quoted above, the senate

informed the city's people of their losses. This suggests that the list sent by Varro

was either published as was or enabled the senate to cross check with the legion lists

and generate a list of the lost. The language used by Livy here is instructive in part.

Livy is specific that *privatae clades*, private disasters, were made known to families.

This indicates that a notification was made to the families of the dead rather than the

living. Therefore, it seems that the senate was able to generate a list of those not

with Varro. Quite how the information was disseminated is unclear. The verb used,

uolgo, can mean to publish or to make known generally. The former would indicate

a list put up somewhere, whilst the latter suggests the news being announced *in*

contione as with the Scipio brothers' victory over Hasdrubal in Spain earlier in the

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[65] Livy 22.33.11-12 – neither consul was present in Rome.
[66] Sumner (1975) 258, e.g. Livy 22.34.2, 22.61.15.
[67] Patterson (1942) 322; Gruen (1978) 62; see Arkenberg (1993) 327 for his offices.
[68] Livy 24.11.3, 24.44.5.
[69] Rosenstein (1990) 13-18 highlights that military failure rarely had negative consequences on the career trajectories of Roman magistrates.

year. [70] However, the exact meaning of the term is somewhat academic here, as it is the ability to tell families of their bereavement rather than how this was achieved which is the issue here.

Finally, the later treatment of the Cannae survivors further supports the case of a list sent by Varro. They were sent to Sicily as legions for the majority of the war's duration.[71] The men at Canusium are described by Livy as roughly a consular army, two legions, and may well have been sent to Sicily.[72] The defeat at Cannae appears to have remained a stigma on their records. It seems likely that a list sent by Varro acted as the record's foundation. Having examined the evidence, it can be concluded that Varro did send a list of the survivors of Cannae at Canusium to the senate. Thus, it was possible for a general to generate a list of those under his command from nothing. Ordinarily a general would probably have the list of the legion created at the *dilectus*, making any such reporting to Rome easier. Therefore, it is theoretically plausible that generals could send a census declaration for the men under their command to Rome.

However, the situation in 216 was, like 204, highly unusual; the legions had essentially been wiped out and Rome had lost the war with Carthage but for its obstinacy.[73] Further, Varro only needed to provide the minimum information to identify the survivors, not the full declaration about themselves, their families and property required by the censors. On balance, it seems best to conclude that commanders did not regularly send census returns for their legion to the censors. The censors could use the existing legion lists to mark a legitimate absence on the

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[70] Livy 23.29.17 – *quae posteaquam litteris Scipionum Romae volgata sunt.*
[71] Livy 23.25.7.
[72] Livy 22.54.6.
[73] Patterson (1942) 322.

record. As will be seen (below and III.iii), the census system worked at a level of precision at which this uncertainty was permissible. The mission of 204 was indeed extraordinary.

On the other hand, that census returns were not sent by generals in the field prior to 218 does not demonstrate that this was also the case after the Hannibalic War. As a state demonstrably concerned with tracking its manpower, and so frequently engaged in war, a continuing concern to generate reasonably accurate records would be expected following the change in the scope of Rome's wars brought about in the Second Punic War. Indeed, the abolition of citizen tax in 168 would suggest that the manpower element of the census became even more prominent.[74] Despite this, the sources suggest that censorial missions to legions in the provinces did not become the norm. The second-century census figures continued to fluctuate, with a particularly low count in 194;[75] a variety of factors contributed to this, but a failure to include the legions abroad may well have contributed. This all suggests that the 204 missions were indeed extraordinary and not repeated in the second century.

Nonetheless, the lack of missions to include the legions in the census does not necessarily mean that none of the soldiers was registered. As established above, the *paterfamilias* was responsible for declaring all those in his *potestas*. Using the same models generated in the previous chapter (II:iv) it is possible to estimate what proportion of soldiers had a *paterfamilias* to declare them to the censors. Again the same caveats must be emphasised: the models are exactly that, giving a sense of scale rather than a precise answer.[76] As here it is, in any case, impossible to know

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[74] Cicero, *Off*.2.22.76; Plutarch, *Aem.* 38.1.
[75] 204 – 214,000 (Livy 29.37.6), 194 – 143,704 (Livy 35.9.2), 188 – 258,318 (Livy 38.36.10).
[76] Newell (1988) 118; Parkin (1992) 68, 80-3; Saller (1994) 47; Salleres (2002) 1-5, 160-7; Hansen (2006) 1; Akrigg (2011) 47-57; Holleran & Pudsey (2011) 12-3; Hin (2013) 105-18.; see II:iv.

from what proportions of different age categories each legion was composed, and this most likely differed from year to year and legion to legion, a sense of scale is all that is possible.[77]

Once again the Coale-Demeny[2] tables for Level 3 West Male and Level 6 West Male have been applied to Saller's population models for 'ordinary' (men aged 30 and women aged 20) and 'senatorial' (men aged 25 and women aged 15) marriage ages. The range of mortality at birth and different marriage ages will provide a 'high' and 'low' model, within which is the most likely proportion of men in the legions with a *paterfamilias*. The census figures for 234 and 164 have also been used again. In this case, there is no need to remove a percentage to represent the *proletarii*; a proportion rather than a number is required. As such, the numbers generated in Appendix I, Table 1 and Table 2 without the 10% representing the *proletarii* removed have been used. These have then been applied, in each age bracket, to calculate the average number of men over the age of 17 with a living father or grandfather. These calculations can be seen in Appendix II. The total proportion for each of these categories (Level 3 West Male 'ordinary' marriage, Level 3 West Male 'senatorial' marriage and Level 6 West Male 'senatorial' marriage) is summarised in Table 2.

No distinction is made between 234 and 164 as using the same model results in the same proportions for both. A distinction is also not made between the married and unmarried. While exemptions for marriage (see II:iv) affected the legion's character, resulting in a legion of predominantly men under 30, marital status does not affect mortality and the average life expectancy of an individual's father. Theoretically (which is all that can be produced here), the proportion of men with a living

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[77] Scheidel (2009) 32-6 examined the number with living fathers only.

paterfamilias in the same age bracket would have been the same regardless of whether the men were married or not.

Table 2: Proportion of men with a living *paterfamilias*

Model	15+ (17+)	15-44 (17-44)	15-19 (17-29)
Level 3 West Male 'ordinary' marriage	28.61% (25.54%)	38.84% (35.65%)	53.38% (50.96%)
Level 3 West Male 'senatorial' marriage	33.54% (30.32%)	45.06% (41.81%)	60.82% (58.06%)
Level 6 West Male 'senatorial' marriage	38.26% (34.99%)	53.97% (50.70%)	70.98% (68.19%)

Proportions of men with a living *paterfamilias* have been given for those aged between 17 and 46 as that is the age of during which *iuniores* are nominally available for service. The proportion for those aged 17-29 has also been given from following Rosenstein in considering the vast majority of those aged 30 and above as usually exempted.[78] The 15-, 17- and -44 age brackets have been used as discussed in the previous chapter (II.iv). Thus it can be seen that depending on the model used between 50.96% and 70.98% of men on campaign had a living *paterfamilias* to declare them in the census. In numerical terms, from a legion of 4500 men this means between 2293 and 3194 men (to the nearest whole man). Allowing for a few men aged over 30 in the legion, and for the fact that these numbers are extremes between which the most accurate estimate lies, it can be stated with reasonable certainty that on average more than 55% of men in the legions had a living *paterfamilias* and thus were declared in the census.

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[78] Rosenstein (2004) 85-9, see II.iv.

Even for those without a living *paterfamilias*, it was still possible to be declared at Rome whilst on campaign. Varro states that it was possible for individuals to nominate someone else to make a declaration on their behalf.[79] Brunt argues that this account is outdated, referring to a time when the community was small enough for the census and the *lustrum* to take place in one day. Consequently, it had little relevance to a time when the censorship lasted eighteen months.[80] This may be the case. Indeed, Varro was writing in the mid-first century when a full census including a *lustrum* does not appear to have taken place between 70 and 29.[81] Further, this reference to *pro altero* may simply be to those in an individual's *potestas* whom he would then declare. However, that Varro's individuals desired to gain a *ratio*, a rating, suggests that this is not the case. The *paterfamilias* was the legal possessor of all the goods and property held by those under his authority, meaning that only he from his household would receive a rating, which was also applied to any sons for political and military purposes. For this reason, the other man 'wishing to be given a rating' was another *paterfamilias* who was for some reason unable to be present in person. The almost casual way in which Varro mentions the possibility of a proxy suggests that, even if the exact procedure described is outdated for the second and first centuries, the proxy was still current and a detail with which Varro expected his reader to be familiar.

Moreover, Cicero also provides evidence of registration by proxy. He promised to sort out the census return for the absent Atticus.[82] Interestingly, what Cicero specifically promised was to prevent Atticus being entered as absent despite not

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[79] Varro, *Ling.* 6.86 – *si quis pro se sive pro altero rationem dari volet.*
[80] Brunt (1971) 536.
[81] [Livy], *Periochae* 98.3; *Res Gestae* 8.
[82] Cicero, *Att.* 1.18.8.

being personally present, *'ne absens censeare'*, 'lest you be counted as absent'. This suggests that the censors would still enter an individual on the census even if they did not appear, presumably retaining the previous rating with a penalty for failing to appear.[83] This further indicates that previous lists were consulted for the creation of the new. Cicero was ensuring that Atticus would be able to register at the end of the census period, allowing him to conduct his business and be given an accurate rating.[84] Cicero did not here register Atticus as a proxy, but he was able to intervene with the censors on Atticus' behalf. This suggests that action like that evinced by Varro was possible.

It also demonstrates that Atticus' absence would have been noted. Suolahti argued that the censors called individuals to the census in the same order as on the previous lists as it was on these the new list was based, in the order of tribes, freedmen then *equites*.[85] As Atticus was not a cavalryman (that is, a military cavalryman as opposed to of equestrian status in wealth terms), he would have been called in the tribal stage. Thus his absence, and by extension anyone included in the previous census, would have been noted. Cicero, like Varro, was writing in and concerning the first century, but his information tallies with that of the earlier Republic. The 169 example demonstrates that the censors had a list of those on campaign with which to compare the census declarations.[86] Coupled with the case of Atticus, it

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[83] The harsh penalties of Livy 1.44.1 and Cicero, *Caec.* 34 are not attested as occurring, but the possible severity of the sanctions indicate the stigma of being absent.
[84] Cicero, *Att.* 1.18.8 - *sub lustrum autem censeri germani negotiatoris est.*
[85] Suolahti (1963) 37 using Dion. Hal., *Ant. Rom.* 5.75.3, 4.15.6, Livy 38.28.4, 38.36.5, 43.16.1. Using Polybius, Hill ((1939) 357-362) has argued that during the Middle Republic there was not a separate equestrian census. The equestrian census mentioned by Suolahti on the basis of Livy is in fact the review of public horse discussed above. Hill's argument for a *census equester* in the Late Republic is not entirely convincing, as his reference may well refer to the same review.
[86] Livy 43.14-15, see above.

seems that the censors would be able to spot absentees, account for those absent with the legions and retain their previous rating.

In the case of soldiers *sui iuris* on campaign, it was unusual for many to be missed in the census, at least in theory. It was possible for them to arrange their registration by proxy. This, of course, does not mean that the arrangement was made. If enrolled in the year before a census was due, a *paterfamilias* might have made such an arrangement between his appearance on the Capitol and attendance at the first reassembly. However, for those enlisted shortly after a census, such organisation may not have been a consideration, especially as a campaign's duration was unknown, as indeed was the gap between census periods. The legion lists should have allowed the inclusion of even those who did not make arrangements for registration. However, if the system worked this smoothly, a serious reconsideration of the demographic implications of the Mid-Republican census figures is required.[87]

It is not the purpose of this study to discuss demography in detail, but a few considerations need to be noted. Firstly, there is no direct evidence of ordinary Romans organising to be registered by proxy. This is probably a consequence of the general lack of evidence for the non-elite in this period. Varro's casual reference to such registration suggests it was reasonably common, but that soldiers on campaign engaged in it remains hypothetical. Secondly, it is unclear whether those registered by proxy and any others caught by the legion lists would be included in the published census figure. As those *in potestate* were not physically present at the census but nonetheless included in the head count, *capita censa sunt*, it is not a great leap to suppose that anyone registered by proxy would likewise be included.

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[87] For example, Brunt's ((1971) 61-83) calculation of population by adding the approximate number of men in the legions to the census figures would be rendered wildly inaccurate.

However, it may not have been the same for someone only known from the legion list and a previous declaration. Considerations such as death on campaign (see IV:i) may have led the censors to err on the side of caution and not include them; possibly their head was not seen to be present in any fashion. Thirdly, if the censors did not have up-to-date death records from the legions, which is likely, especially as the census period was so long, it is possible that individuals who had died on campaign were included in the census before their *paterfamilias* received the news. Despite this, the total would still have been more accurate than excluding anyone on campaign. Indeed, the requirement in 169 of the *paterfamilias* of men serving in Macedonia since 172 to personally attend the censors suggests that it was usual for those abroad to be registered.[88]

Bearing these considerations in mind, it must be conservatively concluded that approximately 50% of those on campaign, this is, those with a *paterfamilias*, would have been registered in the census. Nonetheless, this conclusion still has an impact on demographic studies. Taking Brunt's population calculations as an example (and withholding any other objections to his methods),[89] the number which he adds to each census figure to represent serving men must be halved to more accurately represent those not included in the census. The census figures of 209 and 204, and to some extent of 194, can still be explained in the same manner as advocated by Frank,[90] but the second-century returns require further consideration. There were of course more factors than service abroad affecting the census, but they need not be discussed here. It is enough to suggest that this interpretation of the census and

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[88] Livy 43.14-15, see above.
[89] Brunt (1971) 61-83.
[90] Frank (1924) 330- 1.

military recordkeeping may help support a 'middle count' demographic reconstruction.

This interpretation of how the census was taken must affect how the 204 census is viewed. If approximately 50% of serving soldiers were registered by their *paterfamilias*, then the numbers returned by the commissioners led to an over-count in the census. Around 50% would already have been included by the censors. However, given that the census figure for 204 as transmitted (214,000) appears to have been rounded and is possibly still lower than might be expected in comparison with later figures, several possibilities remain. Firstly, that the censors were willing to include a possible over-count in the knowledge that despite their diligence they may well have not registered all the citizens. Thus the over-count would help make up this shortfall. However, it is difficult to understand how the censors would be able to find these unregistered men for recruitment other than in an emergency *tumultus*. These unregistered men may have been obvious if they had registered in the previous censuses to which the 204 censors had access, but the censors could not know whether they still lived. Secondly, that Livy does not give the full detail of the missions. The lists from the legions were not simply added to the total from Rome. Rather, the same process as in a usual census was undertaken with a crosscheck to prevent repetition. In this case, the census figure for 204 need not be scrutinised.

Thirdly, that it was with this extraordinary census that the crosschecking of census lists with legion lists began. Thus while visiting the legions was unusual, it began a bureaucratic system which in future allowed the censors to generate a more accurate census. This raises the question of why the censors of 204 did not simply use the legion lists in Rome to conduct their investigation. If 204 was the beginning of this crosschecking phenomenon, it is possible that legion list copies were not yet kept in

Rome. As has been seen above, the shorter third-century campaigns may have meant that absence from the census was so rare that such a record was deemed unnecessary. It was only with the new scale and scope of the Hannibalic War that such measures were required. This points to the development of Roman military bureaucracy to a new complexity as the city was forced to adapt to the changing circumstances of war.

To conclude, investigating the processes involved in census taking reveals that Rome was able to track her manpower to a reasonable degree without the requiring missions sent to the legions in order to obtain accurate information. The Hannibalic War occasioned an upheaval in Rome, and the use of extraordinary measures,[91] but the city was soon adapted to cope with the changes in the scope and scale of warfare with almost no change in the census process. It could be argued that it was at this point registration by proxy was introduced, but there is no reason why it cannot belong to the third century or even earlier. More importantly, the combination of census records and legion lists generated at the *dilectus* allowed Rome to function at a relatively high bureaucratic level in order to keep accurate records. Even in the second century, at least half of those abroad on campaign were included in the census figure, and it is possible that this proportion was at times significantly higher.

iii: Polybian manpower figures

It has been demonstrated that Rome kept a reasonably accurate record of her manpower during the Middle Republic. However, in times of emergency, it was possible to generate a more immediate picture of Rome and her allies' military capability in a short period. In the second book of his *Histories* Polybius provides a

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[91] Livy 29.37.5f.

breakdown of the manpower resources available to Rome at the point of the 225 Gallic invasion. This breakdown has been the source of much scholarship concerned with issues ranging from ancient Italian demography to the proper understanding of the Republican census figures;[92] little consensus has resulted. For this discussion an investigation of the figures is essential, as it sheds light on the methods by which manpower was calculated and recorded both under duress and in more peaceful periods. Other attestations of Polybius' figures complicate the picture, but with full investigation broaden understanding. Viewed in-line with near-contemporary census records, the breakdown provides a crucial insight into military administrative processes in the late-third century, the census' weaknesses and limitations, and the methods by which these shortcomings were circumvented.[93]

Polybius records the forces available to Rome against the Gauls in 225 as reported in καταγραφαί by the allies. These appear to have consisted of lists of men either currently serving or able to serve in the army. The totals as given by Polybius are set out in his order in Table 3. It is generally accepted that these originate from the καταγραφαί themselves through the work of Fabius Pictor.[94] Fabius was a senator in 225 and active during the following Gallic War.[95] It is entirely plausible that he could have obtained access to these καταγραφαί, whether held in an official 'archive' or copied into private memoirs (see V:iii), when he came to write. Indeed, the unusual geographic layout of the figures, with forces listed north to south following the active Roman legions, points to an emergency reaction to a northern incursion

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[92] See following references.
[93] This discussion will necessarily touch on issues of Italian demography, but any attempt to add to the debate is beyond the scope of this thesis.
[94] Walbank (1957) 184, 196; *FRHist I* 175-6.
[95] Orosius 4.13.6.

rather than invented or remembered figures. The very trouble of interpreting such an

odd set of figures points to their reliability.

Table 3: Polybius' 225 manpower figures (from Polybius 2.24)

	Region	Foot	Horse
Levied	4 legions of Roman citizens	4 x 5200	4 x 300
	Allied contingent	30,000	2000
	Sabines and Etruscans	50,000+	4000
	Umbrians and Sarsanites	20,000	
	Veneti and Cenomani	20,000	
	Roman Reserve	20,000	1500
	Allied contingent	30,000	2000
Able to bear arms	Latins	80,000	5000
	Samnites	70,000	7000
	Iapygians and Messapians	50,000	16,000
	Lucanians	30,000	3000
	Marsi, Marrucini, Frentani and Vestini	20,000	4000
Levied	1 legion in Sicily and Tarentum	2 x 4200	2 x 200
Able to bear arms	Romans and Campanians	250,000	23,000
TOTAL	**Romans and allies levied and able to bear arms**	**700,000+**	**70,000**

Polybius himself does not explicitly state that he used Fabius here, although earlier

he mentions Fabius as an authority for the period.[96] Alternatively, one of the 225

consuls was one L. Aemilius. Polybius does not provide a cognomen, but Walbank

and Broughton conclude that this man was L. Aemilius L. f. Cn. n. Papus.[97]

However, of all the evidence produced, only Appian and the *Fasti Capitolini* support

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[96] Polybius 1.14.
[97] Walbank (1957) 196; Broughton (1951) 230.

Papus.[98] As an Augustan creation, the *Fasti*'s accuracy is uncertain and in places

entirely incorrect. Taylor considers Livy to have recorded the true Republican

tradition, not the *Fasti Capitolini*,[99] but the confusion in sources probably using

Livy (see below) suggests Livy did not provide a cognomen. Pliny gives Paulus, and

Orosius Catulus.[100] As no other Aemilii Catuli are attested, Orosius can be ignored,

but Paulus remains a possibility. This is particularly tempting as an Aemilius Paulus

would be an ancestor of Polybius' friend Scipio Aemilianus.[101] It is possible that

Aemilius recorded the returns in his magisterial *commentarius*; Polybius' close ties

to the family may have provided access to such a record, a source possibly

independent of Fabius. However, on balance the correlation between the consular

and triumphal *fasti* suggests that in this instance Papus is the correct attribution.

Nonetheless, it remains possible that Polybius was informed by an Aemilian

commentarius. It cannot be ruled out that Fabius obtained his information from the

Aemilii Papi as well, but his personal relationship with this *gens* is unclear. Such a

source for the Polybian figures must remain hypothesis, but adds to the potential

reliability of Polybius' record.

Polybius is not the only source for these manpower figures. Diodorus, Pliny the

Elder, Orosius, Eutropius and [Livy]'s *Periochae* all report the totals, with some

variations (Table 4). Orosius and Eutropius, both giving a total of 800,000,

explicitly attribute the number to Fabius.[102] The *Periochae* also gives the figure of

800,000, although without citation.[103] However, it has been suggested that in '*sui

Latinique nominis DCCC milia armatorum habuisse dicit*' Fabius should be seen as

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[98] *Fast. Cap.* XVIIa 529; *Fast. Trium.* XV 529; Appian, *Gall.* 1.2.
[99] Taylor (1946) 8, (1951) 78.
[100] Pliny, *HN* 3.138; Orosius 4.13.5.
[101] Polybius 2.23.5; Pliny, *HN* 3.138.
[102] Orosius 4.13.6; Eutropius 3.5.
[103] [Livy], *Periochae* 20.

the lost subject of *dicit*, giving the entry more grammatical and syntactical sense.[104]

Diodorus and Pliny seem to follow Polybius with 770,000 and 780,000

respectively.[105] Modern scholars generally consider these all to be replications of the

same original.[106] It is not unreasonable to consider Fabius the ultimate source.

However, the variation in these figures points to a more complicated

historiographical inheritance than usually allowed, and requires further comment.

Table 4: Other 225 manpower figures

		Foot	Horse
Diodorus Siculus		700,000	70,000
Pliny the Elder		700,000	80,000
Eutropius	Total	800,000	
[Livy], *Periochae*	Total	800,000	
Orosius	Romans	348,000	26,600
	Total	800,000	

Eutropius, Orosius and, obviously, [Livy]'s *Periochae* were all heavily reliant on

Livy for their work. That the 800,000 manpower figure was transmitted to them

through Livy's lost books is almost certain, although an epitome may have been

intermediary. Cornell *et al*. demonstrate that Orosius' 'preoccupation with

cataloguing misfortune' has led to the reproduction of many numerical fragments of

Livy in Orosius.[107] There is no reason to assume a lesser level of care in this case.

(The foot and horse breakdown provided by Orosius will be discussed below.) This

suggests that Orosius, and (as they record the same figure) by extension Eutropius

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[104] *FRHist II* 97, *FRHist III* 36-7 – '[Fabius] says that they and those of the Latin name had 800,000 soldiers in arms' (author's translation).
[105] Diod. Sic. 25.13; Pliny, *HN* 3.138.
[106] Walbank (1957) 199; *FRHist III* 37.
[107] *FRHist I* 101.

and the *Periochae*, faithfully reproduce Livian figures.[108] The direct assertion of Fabius as the source by Eutropius and Orosius seems to indicate that Livy transmitted the manpower figures directly from Fabius. It is probable that Livy had read Polybius' version; he explicitly mentions Polybius in his work and books 21-22 correspond to the extant books of Polybius.[109] However, Eutropius and Orosius should not be ignored. It seems that Livy took the figures directly from Fabius, not Polybius. Whether Fabius himself gave a figure of 800,000 or Livy rounded the given figure cannot be determined.

The figure of 770,000 given by Diodorus probably comes from Polybius or Fabius.[110] Both are plausible sources for Greek-speaking Diodorus. That the only explicit use of Fabius gives 800,000 might suggest Fabius over Polybius, but as these assertions came through Livy it cannot be certain. As with those reliant on Livy, the historiographical sequence is unclear. The figure provided by Pliny the Elder is more interesting. 700,000 foot and 80,000 horse is generally considered a textual corruption from the 700,000 and 70,000 found in Polybius.[111] However, as Polybius states that there are more than these figures, it is possible that Pliny's figure is a more specific approximation. This suggests that Pliny was using an alternative to Polybius, and that this source was more exact than Polybius. Polybius' own overall totals are a rounded figure based on the addition of rounded figures which appear to err on the lower side. While this does not aid in identifying Pliny's source, it demonstrates, along with the discussion above, that the extant figures were not the only tradition in antiquity. These alternative figures were most likely un-rounded

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[108] The *Periochae* is anachronistic when it describes the 800,000 as *sui Latinique nominis*. However, misunderstanding the status of what the figure represents does not prevent the number itself from having been correctly transmitted.
[109] Livy 30.45.5, 33.10.10, 34.50.6, 36.19.11, 39.52.1, 45.44.19.
[110] Walbank (1957) 199. There are no MSS deviations or modern emendations of this figure.
[111] Walbank (1957) 199.

versions of Polybius' and do not call them into question. On the other hand, it does suggest that more attention should be paid to the other extant figures rather than dismissing them as repetitions.

Having established the relative reliability of the extant figures as a representation of the original καταγραφαί, the meaning of the figures themselves must be examined. A common, although not universal,[112] complaint is that Polybius (or Fabius) has miscalculated his overall total by including those already levied twice.[113] The six active legions and reserve force are already covered by the total of Romans and Campanians, giving a citizen total of 325,300 rather than 273,000. This double-count assumption is based on the notion that Polybius' figures are essentially census returns. 273,000 fits the sequence of extant census figures where 325,000 does not. The census return of 234 in particular, 270,212, is cited as an indication of Polybius' inaccuracy.[114] For a 'low count' understanding of Roman and Italian demography Polybius' total is simply too high. There are several serious problems with this interpretation of the Polybian figures, not least that low-count demography requires the manipulation of the figures in this way. It is better to explore the options before assuming that a mistake has been made.

Who was included in the census as opposed to the Polybian figures is significant. Putting aside the problems of age groups, centurial classes and under-registration, there is a more fundamental problem. While citizen and allied contributions to the legions and reserve force are separated out, the rest of the καταγραφαί, refer to geographical area rather than citizen status. For example, as Table 3 shows, the

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[112] Lo Cascio (1999) 167, (2001) 131; Rosenstein (2002) 177-178; *FRHist III* 37.
[113] Walbank (1957) 198; Toynbee (1965a) 498; Brunt (1971) 45-7; Shochat (1980) 15-6, 35; Scheidel (2004) 3. De Ligt (2004) 735-6 finds neither argument entirely convincing.
[114] [Livy], *Periochae* 20.15.

Sabines and Etruscans were included as one entry. As Lo Cascio and Baronowski have noted, the Sabines were Roman citizens in 225, as were some Etruscans.[115] For the Etruscans the number of citizens was likely in the low thousands as Caere was the only town partly enfranchised.[116] As *cives sine suffragio* they may have been infrequently registered in the census; coupled with Polybius' approximation of 'more than' for the number of Sabines and Etruscans they cause little effect on the calculations. Other fully enfranchised Etruscans had been placed in Roman tribes in 393 and 389, thus they will have been included in the Romans' and Campanians' figure.[117] However, the Sabines will also have been ordinarily included in the census. If Lo Cascio is followed in considering relative Etruscan:Sabine population about 3:2, around 21,600 (20,000 foot and 1600 horse) must be added to the low-count figure of 273,000 to give the actual corresponding census figure of 294,600. (It must be noted that this includes the assumption that foot and horse contingents were also equal in this ratio. Although with no evidentiary basis, it provides a starting point for these calculations.)

294,600 is not in itself an entirely implausible census figure for 225, but does remove the appealing correlation with the 234 return. On the other hand, if Brunt's estimate of 10% under-registration is correct 294,600 would be almost exactly what might be expected during an emergency levy where fewer would be missed.[118] However, that this theory requires the Polybian figures be seen as census returns means an explanation using an emergency levy cannot be accepted. Toynbee gets round this problem entirely by considering Sabines a mis-transcription of Sapinia,

[115] Lo Cascio (1999) 168; Baronowski (1993) 190.
[116] Livy 7.20; Harris (1971) 45-7.
[117] Livy 5.30, 6.3.4.
[118] Brunt (1971) 35.

but his theory has not gained a great deal of traction.[119] Rather, the double-count

interpretation loses ground.

A fundamental but unspoken assumption of the double-count interpretation is that it

was usual for those on service to be included in the census in this period. As shown

above (III.ii), the author does not contest that some of the serving were included in

the census, but those arguing for the double-count almost always do so.[120] It is

possible to argue that in 225 Rome was more mobilised than usual, in preparation for

a Carthaginian rather than Gallic war,[121] which may explain the minimal 'census'

increase from 234. However, it cannot be had both ways. This flaw requires a re-

working of many of the demographic assumptions and theories of these scholars.

Polybius cannot be accused of double-counting if the serving were not regularly

included in the census.

At this point it is worth examining the figures transmitted by Orosius. Along with an

overall total of 800,000 the manuscripts all give the numbers of citizens at 348,000

foot and 26,600 horse, a total of 374,600. The foot number is considered a

transcription error, and can be changed with equal palaeographical plausibility to

299,200 or 248,200. The horse figure can be adapted to 26,100.[122] Both of these

numbers fit a theory concerning the interpretation of the Polybian figures.[123]

However, the very fact that both the numbers then fit so neatly with different

interpretations raises questions of reliability. If both are equally plausible, they are

equally implausible. There appears to be an issue of finding what one is looking for.

Further, Shochat considers the alteration of the horse figure arbitrary and not

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[119] Toynbee (1965) 485.
[120] Frank (1924) 330; Brunt (1971) 36-7.
[121] Erdkamp (2009) 508.
[122] Brunt (1971) 46.
[123] 248,000 Brunt (1971) 47; 299,200 Shochat (1980) 33.

justified.[124] It is difficult to imagine that the same might not also be true of the foot.

To the author's knowledge, there has been no attempt to make sense of the

manuscript figures. What follows, although imperfect, is an attempt at interpretation

using the original figures.

First, Polybius. On the basis that he has not double-counted, Polybius provides a

citizen total of 325,300. To this can be added the approximation of Sabine citizens

calculated above (21,600), giving a citizen total of 346,900+. Admittedly this is an

approximation, but it is probably slightly low and is not too far from Orosius' total

of 374,600, lending it some plausibility. When this is broken down into foot and

horse these figures look less plausible, with 319,200 foot and 27,700 horse. This

assumes the same ratio of foot to horse from both forces. It appears that the numbers

derived from Polybius differ from those provided by Orosius to an extent that

Orosius' figure must be considered incorrect for whatever reason (Table 5).

Table 5: Comparison of Roman citizen numbers

	Foot	Horse	Total
Orosius	348,000	26,600	374,600
From Polybius including Sabines	319,200+	27,700	346,900+
From Polybius including Sabines and Etruscans	349,200+	30,100	379,300+

However, there is a final possibility: only a few thousand Etruscans sent south to

defend Roman territory are included in the Etruscans and Sabines figure. If the

whole figure (54,000), rather than an estimate of Sabines, is added to Polybius'

figure, the overall Polybian total (now 379,300) is 4700 higher than the Orosian

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[124] Shochat (1980) 33.

total, i.e. roughly a Roman legion.[125] Broken down, this gives 1200 foot and 3500 horse. This is a very high proportion of cavalry, even for the allies who regularly supplied more than the Romans, but does not rule out this interpretation. Polybius stated that there were 'more than 50,000' Etruscan and Sabine foot levied. What 'more than' equates to is unclear, but may well make the ratio more recognisable, although still with a large cavalry contingent. As Polybius describes this part of the list as those defending Roman territory,[126] it is not implausible that the Etruscans sent only one 'legion' south to the praetor's command when the enemy approached from the north. Indeed, it helps explain why such an apparently huge force was entrusted to a praetor.[127] Moreover, this 'legion' was raised by the Etruscans apparently on their own initiative. There is no reason to assume that an Etruscan levy, especially an emergency levy, would work to the same totals and proportions as the Roman levy. It will be shown below that in the context of the emergency levy such a high number of Sabines is not implausible, nor is a report of so few Etruscans. Thus, while largely hypothetical, the Orosian manuscript figures can be used in the interpretation of the Polybian manpower figures and the reconstruction of events surrounding the Gallic invasion. From this, it appears Orosius (and so Livy) had access to an alternative breakdown or a more detailed account of the war. Careful use of this evidence can help shed further light on Polybius.

A further argument against the double-count interpretation comes from an examination of exactly what Polybius claims to record. Polybius states at the outset that the Romans asked for ἀπογραφὰς τῶν ἐν ταῖς ἡλικίας, lists of those in the

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[125] 379,300 from 374,600.
[126] Polybius 2.24.8-9.
[127] Polybius 2.24.6; cf. Toynbee (1965a) 483. Alternatively, recent scholarship may render a praetor commanding a large force unproblematic, see n. 160.

[military] ages.[128] Brunt argues that ἀπογραφαί is a term Polybius uses to refer to the census, but his only evidence is this precise instance.[129] 'Reports' or 'lists' is a better translation, as this discussion demonstrates. Polybius' list of forces actually begins with those brought together (συνήχθησαν), i.e. those already levied,[130] and listing camps, κατέγραφον στρατόπεδα.[131] Once these men have been enumerated he gives the καταγραφαί reports. The inclusion of the legions in Sicily and Tarentum in this part of the list is probably due to geographical expediency. Those as yet un-levied in central Italy would reach the Gallic threat before the distant standing legions. This in itself helps reveal the sense of Polybius' ordering. As Lo Cascio points out, the forces are listed in logical order for a defence strategy, with decreasing immediate availability down the list.[132] Thus not all the returns represent the same things. As made clear in Table 3, Polybius includes lists of both the levied (συνήχθησαν) and those able to bear arms (implicit in the language).

However, this on its own does not rule out a double-count. It is necessary to establish how these figures were obtained. It has already been demonstrated that they cannot be considered census returns. Pliny describes the emergency as due to 'gallico tumultu', and Polybius refers to the terror of the old invasion.[133] It is clear that an emergency levy is taken across Rome and her allies. Rosenberger argues that the terror element should be ignored and the tumultus Gallicus seen as a purely pragmatic matter.[134] He uses the later lex Ursonensis of 44 as evidence of such pragmatism in legislation. This law seems only to enhance a sense of fear of the

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[128] Polybius 2.23.9.
[129] Brunt (1971) 638.
[130] Polybius 2.24.7.
[131] Polybius 2.23.8.
[132] Lo Cascio (1999) 167; (2001) 129.
[133] Polybius 2.23.7; Plin., HN 3.138. Cf. Golden (2013) 57.
[134] Rosenberger (2003) 367.

Gauls as it lists a *tumultus Gallicus* as one of two occasions on which no exceptions are to be given in the levy.[135] However, using this Spanish law is not as simple as Rosenberger suggests. The surviving inscription is Flavian in date,[136] and does not contain the archaic language found in other Caesarean laws.[137] On the other hand, there are points at which the engraver does not seem to have understood what he was inscribing.[138] This has led to the conclusion that the inscription faithfully reports the original version.[139] Further, Frederiksen suggests that there was an archetype colonisation charter used by the *lex Ursonensis*.[140] If so, the anachronistic *tumultus Gallicus* can be seen as an archaic survival even in 44, representing its importance earlier in the Republic. Even if the fear element is mythic, it is in many senses academic. In 225 a quick response was required to face the threat; the speed of the attack is demonstrated by the failure to have men facing the incursion into Etruria.[141] The scale of the response need not be seen as excessive.

A *tumultus* was not unprecedented, providing an insight into how the emergency levy was conducted. Previous occasions demonstrate that the military oath was given to all men of military age without exception.[142] The express use of *omnes iuniores* indicates this included the *proletarii* not just the *assidui*. As an emergency levy did not involve the calling of names in a normal levy, it would have resulted in a number of those who took the oath rather than a list of names for the legion. Polybius does not himself use the term *iuniores* or a Greek equivalent, instead

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[135] *CIL* II.5439 I 3.31-32 '*nisi tumultus Italici Galliciue causa*'.
[136] Hardy (1912) 10-11; Crawford *et al.* (1996) 395.
[137] Brunt (1971) 520.
[138] Hardy (1912) 11.
[139] Frederiksen (1965) 190-191; Crawford *et al.* (1996) 395.
[140] Frederiksen (1965) 191.
[141] Polybius 2.23.4, 2.25.1.
[142] Livy 7.9.6, 7.11.6 '*omnes iuniores sacramento adegit*', 7.28.3 '*dilectus sine vacationibus habitus esset*'.

referring to those 'in the ages'.[143] However, Hin has demonstrated that the use of this

term in Roman historiography refers to *iuniores*, including its use by Polybius

elsewhere in his work.[144] Frank argued that *seniores* must be included as they could

stand garrison duty in Rome.[145] While Frank's interpretation is plausible, the

inclusion of the *seniores* is usually explicit when it occurs.[146] However, it would be

foolish to imagine that *seniores* would not fulfil this role if necessary. Several

examples demonstrate citizens coming to arms at an alarm with no levy.[147]

There remains the problem of why Polybius' record of *iuniores* provides a number

higher than the total census figure for 234. The method of the *tumultus* is key here.

It appears that the *tumultus* was undertaken in a similar way to the 212 emergency

levy detailed by Livy.[148] As discussed previously (III:ii), the 212 levy involved the

enlistment of everyone suitably fit whom the commissioners came across, including

those under 17. This has several implications: firstly, the number gathered would

not have suffered from the census' under-registration; and secondly, it is unlikely

that in the climate of imminent danger of 225 those conducting the *tumultus* were

overly concerned with the age of those they enrolled. Using the proportions for the

234 census figure generated in Appendix I, Table 1, a figure of 321,876 men can be

generated by including *iuniores*, *seniores* and those aged 15-16 and considering the

census figure to be approximately 90% of the male adult citizen population due to

under-registration. The possible mobilisation of all the *seniores* may seem extreme,

but it has been demonstrated above that the Gauls were not just another enemy to the

Romans. The number can be made up to 325,000 if a small increase in population

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[143] Polybius 2.23.9 - ἐν ταῖς ἡλικίαις.
[144] Hin (2008) 192-193; Polybius 6.19; Dion. Hal, *Ant. Rom.* 3.65.4, 4.15.46, 4.16.3, 5.75.4, 11.63.2.
[145] Frank (1924) 332.
[146] E.g. Livy 6.2.6, 6.6.14.
[147] E.g. Livy 7.12.2.
[148] Livy 25.5.6-9.

since 234 or a higher level of under-registration than the conservative 10% is allowed. Lo Cascio goes as far as to suggest that under-registration was so high that the entire figure was *iuniores*.[149] It is this number, not the *iuniores* but all those liable to serve Rome, which Polybius records from the καταγραφαί of those able to serve. Thus it does not correspond with the census figures, but forms a separate, more accurate record of manpower in a seemingly desperate situation.

Scheidel has raised the question of why Rome did not field such a number in the Hannibalic War if she had the manpower potential.[150] This is not an unreasonable question, especially as Polybius includes the figures for comparison with Hannibal's forces,[151] although the inclusion of the *seniores* helps to explain it. It can be answered by further examining the emergency levy's process. Although the oath was administered on a large scale, there is only one recorded example when all those levied at this initial stage were taken into the field, and then only for a single day.[152] More usually, a number of legions were created.[153] This suggests that the καταγραφαί of the able represent the number to whom the oath was administered. These men had not yet been recalled for the next stage of legion formation, but can be considered the manpower potential of the territories rather than those actually in the field. Indeed, Polybius refers to them as κατελέχθησαν, 'they were picked from'.[154] Building on the work of Erdkamp, Rosenstein has convincingly argued that ordinarily a very low percentage of *iuniores assidui* were on military service, and that the manpower requirements of subsistence farming were in part met with careful selection of *iuniores* whose labour could be lost without serious detriment to

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[149] Lo Cascio (2001) 123-4.
[150] Scheidel (2004) 3.
[151] Polybius 2.24.1, 2.24.17.
[152] Livy 7.11.6.
[153] Livy 7.9.6, 7.28.3.
[154] Polybius 2.24.8, 2.24.14.

their families.[155] At the same time, manpower unavailability, not manpower shortage, meant that the massively increased military requirements of Hannibalic War could not easily be met.[156] Thus, the able-bodied manpower of 225 was only the total potential; in reality it could not have been realised without the collapse of the subsistence economy.

Those levied are a different category in Polybius' list. It appears that these are men fielded in defence. Polybius refers to the legions, στρατόπεδα, which literally translates as 'camps'.[157] It is worth returning to the problem of the Etruscans and Sabines here. Brunt highlighted that it would have been extremely strange for the Etruscans to have sent their entire manpower south at the point when the Gauls were entering their territory.[158] If the above interpretation of the Orosian figures is correct (the author wishes to emphasise the 'if'), the Etruscans sent only a single 'legion' south. As this conclusion leaves the rest of the Etruscan force unaccounted for, it is problematic. However, it is possible that Orosius (or Livy) misinterpreted the information he had regarding who should be considered citizens. The remaining figure should then be considered composed of the other Etruscans and Sabines who remained in Etruria, who were met by the advancing praetor. It is not unreasonable that the praetor led such a large force at this point, as one of the consuls was still returning from his initial posting with the legions, the other was stationed at another possible point of incursion and immediate action was required.[159] As the highest ranking magistrate present in the area, the praetor naturally took command.[160]

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[155] Erdkamp (1998) 255, 261, 265; Rosenstein (2002) 183-8, (2004) 85-90.
[156] Rosenstein (2002) 185.
[157] Polybius 2.24.8, 2.24.13.
[158] Brunt (1971) 52.
[159] Polybius 2.23.5-6.
[160] It may be questioned why a dictator was not appointed as in other examples of *tumultus Gallicus*. Alternatively, recent interpretations regard the praetorship's origins as an office equal to and older

Alternatively, it cannot be ruled out that the process of the levy or its terminology were not the same in all the territories. The terminology used by the historians to discuss allied levies is identical to that used for the Roman levy, but this does not mean that the processes were.[161] In discussing the recruitment of the Samnite Linen Legion in 293 Livy implies that this contrasted with the normal practice familiar to Romans, and what was normal for the Samnites.[162] However, there is no explicit testimony of a normal levy for any of the allies. Those referred to by Polybius as στρατόπεδα may have included those in the field and the potential manpower as a single figure rather than the separation found for the Roman forces. The geographical nature of the returns suggests that the levy took place with some haste; such conflation from the northern states should not be surprising. On the other hand, the possibility of more than one tradition of surviving figures discussed above provides an alternative. If Aemilius did record the lists in his *commentarius*, he may well have not been as thorough and exact as the original returns. Conflated figures might be what should be expected if Polybius used this source over Fabius. In this case the exact number fielded is unrecoverable, but does reduce the forces under the praetor to a more acceptable level.

Overall, the Polybian manpower figures cannot be considered alongside the contemporary census figures. The conclusions to be drawn from this regarding military administration are interesting. The very necessity of requiring immediate reports from the allies demonstrates that any standing information was not adequate. That a similar process took place in Rome herself suggests the same was true of

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than the consulship, a status still visible in the early third century at least. If correct, the prominent role of the praetor is not problematic at all, cf. Bergk (2011); Drogula (2015).
[161] Cf. II.ii; e.g. Livy 21.17.3 (*scripta*), 32.8 (*dilectus*, *scribere*), although often the terminology is implied from the immediately preceding instructions for Roman citizen enrolment.
[162] Livy 10.38.

Roman administration. The census figure as transmitted was not a standing manpower figure. This supports the conclusion above that only approximately 50% of those on campaign would have been included. Hin has highlighted that this should be expected, as the census had more than one purpose, included more than just *iuniores assidui*, and five years passed between each registration.[163] She suggests that subsidiary lists were created each year for the individual purposes; in military terms this was to account for those entering and leaving the *iuniores*.[164] However, the emergency measures taken in 225 suggest it was not sufficient. Only by administering the oath to all eligible could a true reckoning of Roman manpower be made.

The geographical nature of the records indicates several things. At first glance it seems to emphasise the situation's emergency nature, as there was no time to centralise or organise by status. However, the geographical, rather than citizen status, record had a military benefit. As well as an indication of manpower, it also gave the Senate a rough disposition. That this was beneficial is demonstrated by the use of the Etruscan and Sabine levies.[165] While this may seem somewhat obvious and fundamental, such information was undoubtedly valuable. As mentioned above, the lists' ordering reflects a defensive strategy based on just this. Further, the geographical separation even among Roman citizens (as Romans, Campanians and Sabines) indicates an ability to register men at a more regionalised level. While revealing nothing about a localised level, it does reflect a degree of military bureaucracy often overlooked in the modern scholarship. Military action on anything but the smallest scale requires high organisation, but evidence of this is

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[163] Hin (2008) 195-7.
[164] Hin (2008) 214.
[165] Polybius 2.24.6-7.

usually scanty, implicit or missing in the extant sources. The Polybian manpower figures open a small window into this military administration.

iv: The census and military administration

It is now possible to add to the previous chapter's conclusions. Not only did Rome generate lists of those serving in each legion at the point of the *dilectus*, but this was only one part of a more complex bureaucracy. The continued smooth functioning of the census without declarations being sent from the legions demonstrates that legion lists were kept in Rome for consultation by the censors. At least half of those on campaign would have been included automatically; those who did not have a living *paterfamilias* could also be accommodated whilst absent by cross-referencing with the previous census list and lists of active legions. While this may have been a labour intensive process, the duration of the census indicates that, with a support staff (see VI), it was possible for different documents to be used together. In this way, the census and legion lists from the *dilectus* operated symbiotically. The census list was used to create the *tabulae iuniorum* used to generate legion lists at the *dilectus*. In turn, these legion lists assisted the censors in the creation of the most accurate possible list of available and liable manpower for the next five years in the following census. The records' interaction allowed the circumvention, by and large, of the apparent problem of not being included in the register of citizen manpower because of absence caused by fulfilling citizen obligations as manpower asset. The operation and management of what was in Polybius' eyes Rome's key military advantage, her manpower,[166] was possible due to the relative complexity of this administrative structure.

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[166] Polybius 6 *passim*, cf. Pelling (2007) 247.

On the other hand, the Polybian manpower figures reveal that there were limitations to this bureaucracy. To gain an accurate immediate picture of her manpower, Rome needed to physically enlist all the liable men; the census, and derived *tabulae iuniorum*, were not enough to fulfil this requirement in an emergency. As the census was only taken every five years, and on occasion less frequently, this limitation should not be all that surprising. Rather, it is a mark of Rome's ability to deal with emergencies that the limitation could be circumvented and an accurate picture generated so swiftly. The ability of both Rome and its allies to perform the levy on such a scale in a remarkably short period of time, probably only a few weeks,[167] and transmit the information to a central organising hub indicates a degree of bureaucratic preparedness many would find surprising in what remained essentially an oversized *polis*.[168] The military administration, which should not be too separated from the state administration, could function at a remarkable speed and accuracy.

Alongside the *dilectus* and its legion lists, the census performed a key role in holding together the administration of Rome's armies and manpower in Rome. It has been established that the census was the centralised administrative point, to which declarations direct from the armies and their commanders were not added. To broaden the developing picture of Roman Republican military administration, it is necessary to examine the function administration had within the legions, and what form this took. Only by combining this element with those of the *dilectus* and the census can a full picture of the bureaucracy surrounding the management and functioning of the legions be understood.

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[167] Before the consul could return from Sardinia, Polybius 2.23.5, 2.27.1.
[168] As noted by Scheidel (2004) 6.

IV: Recording men on campaign

The census may have functioned as the central aspect of Republican military administration, but it was not the only part of the bureaucracy. In order to fully understand how this bureaucracy functioned, allowing Rome's army to be so successful, it is necessary to examine the types of record carried on campaign. For tactical reasons it was important for a general to know the number of men under his command. This chapter will argue that the general not only knew this number, but also had a full list of the men under his command which detailed their rank, included their previous service and accounted for their pay. Such a list was based on the legion list created at the *dilectus* and organised at the first reassembly, but contained extra detail in order to facilitate as smooth and efficient running of the legion as possible. In order to demonstrate this, several aspects of administration on campaign will be examined. Firstly, how and whether the dead were identified and counted will be investigated, focusing on the casualty figures transmitted by ancient writers. This reveals how the general was able to maintain a working total of the men under his command. Both the dead and deserters were accounted for to some extent, and it was possible to send a list of the dead containing at least some identities to Rome. Secondly, the role of the quaestor will be discussed, examining his functions as food supplier and paymaster. This will demonstrate the necessary complexity of paperwork required for the quaestor to undertake his work properly, particularly in ensuring that each man received the proper pay. Finally, the interaction of records kept on campaign and Rome as a central agent will be examined through the enlistment of *supplementa* for existing legions and the *lustrum* of the army conducted by a new commander upon his arrival in his province.

i: Counting the dead

The legions were not directly registered in the census, but that does not rule out manpower records within the legions. Scholars have questioned how aware generals were of the exact sizes of their forces, especially with the effects of deaths in battle and from disease in camp.[1] However, as has been partly discussed (II.i), it would have been highly impractical for commanders to have little idea of the operational size of their forces. This section aims to demonstrate, through examination of the casualty figures transmitted in the ancient histories, that generals at the very least attempted to discover the number of dead and living from their legions. Casualty figures given for the enemy (whether from Roman or Carthaginian sources) will not be discussed here as the purpose is to identify aspects of the Roman military administration, not provide a more general survey of casualty figures in ancient histories.

Before this administration can be discussed, where historians obtained casualty figures and their reliability must be examined. The origins of the figures help to reveal the nature of the records kept by generals on campaign. Livy is a key author here as his work provides the majority of the casualty figures.[2] These casualty figures have been condemned as incorrect by some modern scholars on the basis that, unless otherwise stated, they derive from Valerius Antias' work.[3] Valerius is

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[1] Harris (1971) 68; Brunt (1971) 694-697.

[2] Numbers are notorious for corruption in the manuscript tradition. However, the majority of the casualty figures for books 31-45 can be accepted as correctly transmitted, with only a few variant readings in the manuscripts (Briscoe (1973), (1981), (2008), (2012); Livy 34.41.10, 37.44.1, 41.18.13). Nevertheless, it is possible that there are cases in which an early copyist made an error which has been transmitted in all the surviving manuscripts. This kind of error is unidentifiable, so the casualty figures must be warily accepted as transmitted.

[3] Briscoe (1973) 11; Laroche (1988) 771; Erdkamp (2006b) 166-8. However, others have argued that the casualty figures for 218-167 can be regarded as correct on the whole to varying degrees: Toynbee (1965b) 45; Rosenstein (2004) 109; Brunt (1971) 694.

the source most often cited by Livy for casualty figures.[4] Therefore, it is necessary

to examine what can be gleaned about Valerius' work and methods in order to better

understand the casualty figures and through them military administration.

Valerius was an immediate predecessor of Livy, writing around 80-60. His work, no

longer extant, appears to have been the major work of Roman history prior to being

superseded by Livy,[5] and has been studied in some depth in recent years.[6] Rich in

particular has highlighted that Valerius' work seems to have been substantially

longer than that of his predecessors.[7] This generates the questions of how his history

was expanded and whence the material was obtained.[8] An obvious and immediate

answer here is 'plausible invention', a facet of ancient historiography recognised and

accepted by Thucydides in the fifth century with regard to speeches and practised (if

somewhat hypocritically) by Polybius in the second.[9] Valerius is particularly

accused of attempting to glorify his *gens* by embroidering or completely inventing

the antics of his ancestors, as well as adding colour to his work with the inclusion of

fabricated numerical details.[10]

These 'fabricated' details, runs the argument, were reproduced by Livy due to his

lack of methodological rigour in composing his histories. There is no evidence that

Livy examined any primary material himself, indicating that he instead relied on

previous histories.[11] He followed a main narrative for sections, using others only to

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[4] Livy 3.5.12-13, 25.39.14, 16-17, 30.19.11, 30.29.5-7, 32.6.5-8, 33.10.8, 33.36.13-15, 34.10.1-2, 34.15.9, 36.19.11-12, 36.38.5-7, 37.60.4-6, 38.23.8, 38.55.5-9. Cf. Orosius 5.3.3, 5.16.1-4; [Livy], *Periochae* 67.
[5] Rich (2005) 138-140 with Asconius, *Corn.* 69C.
[6] Laroche (1988); Rich (2005), (2013); Erdkamp (2006a), (2006b).
[7] Rich (2013); *FRHist I* 297.
[8] Rich (2005) 144, (2013); Erdkamp (2006a) 560.
[9] Thuydides 1.20-22; despite his comments here, Polybius 2.56, 12 passim.
[10] Toynbee (1965b) 38; Laroche (1988) 770-1 (tempered); Erdkamp (2006a) 556, 560; Rich (2013). The author has elsewhere argued that such an explanation of Valerius' narrative should not be accepted for the actions of Valerius Corvus in the First Samnite War; Pearson (2012).
[11] Toynbee (1965b) 36-8. See I:Introduction.

supplement details or note discrepancies.[12] In the 'late-annalistic battle scenes'

identified by Erdkamp, Livy included a great deal of detail about battles and their

aftermath, frequently including casualty figures (usually for both sides), prisoners

and captured military standards.[13] The order of this information is the same in nearly

every 'late-annalistic battle scene'.[14] Erdkamp argues that Livy here followed the

work of a late annalist, almost certainly Valerius Antias.[15] Valerius is most

frequently cited in these 'late-annalistic' narratives. Thus, Livy incorporated

Valerius' 'fabricated' figures without any attempt at verification. This explanation is

accepted by many modern scholars, and consequently requires the casualty figures'

rejection.

However, the issue cannot be so easily settled. There is little reason to question

Erdkamp's conclusion regarding the origin of 'late annalistic battle scenes', or

Livy's general working method. Nonetheless, it does not follow that Livy

unquestioningly followed his sources,[16] nor that Valerius was a serial inventor. It

was pointed out as early as 1906 that Livy's frequent mention of Valerius points to

dissension, not agreement.[17] Each mention of Valerius suggests Livy's

unwillingness to cite the casualty figure on his own authority, indicating an

awareness of possible inaccuracy or corruption. On the other hand, on several

occasions Livy compares figures from several sources, an exercise in which Valerius

is not always judged unfavourably.[18] The frequent citation of Valerius may even be

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[12] Oakley (1997) 17; Erdkamp (2006a) 547; *FRHist III* 349.
[13] Erdkamp (2006a) passim.
[14] Laroche (1988) 760.
[15] Erdkamp (2006a) 557-560, (2006b) 170; cf. Laroche (1988) 758.
[16] Contra Erdkamp (2006a) 539 '…military aspects of battle, such as tactical considerations or terminology concerning units, did not matter and could either be discarded or copied verbatim'. Moreover, it must be emphasised that the accreditation of any passage to a specific but uncited writer remains hypothetical, however enticing the argument, cf. *FRHist I* 299-301.
[17] Howard (1906) 162. E.g. Livy 3.5.12-13.
[18] *FRHist* 25 F36 (Livy 33.10.8), F37 (Livy 33.30.6-11), F48 (Livy 38.23.8).

a demonstration of superior authority by Livy, if the below conclusions on the origins of Valerius' figures are correct. Thus, while Livy may not have consulted primary material, he nonetheless had a concern for the accuracy, or at least plausibility, of the figures which he included in his work.

Readers and writers in the first century appear to have found it realistic that casualty figures could be included in histories. The Greek historiographical tradition may have been influential here. Thucydides regularly included casualty figures in his battle reports which are accepted as accurate by modern scholars, and were even used for an examination of average casualties in hoplite warfare.[19] Their accuracy is further supported by Thucydides' own hesitancy to include figures when he could not find a report he considered trustworthy.[20] As an active general, his judgement in these matters can be trusted. Thucydides seems to have established including casualty figures in battle reports as the norm; Xenophon, Polybius and Claudius Quadrigarius are just three who followed suit.[21] There is no guarantee that authors following Thucydides were as scrupulous as him. For example, Claudius' figures were questioned by Livy.[22] A reader's expectation of inclusion is no indicator of reliability. On the other hand, the turmoil of the first century meant that many of those reading Valerius' and Livy's works had personal experience of military service and administration. Livy frequently gave casualty figures in terms of scale, as 'many' or 'more than average', suggesting that he expected his reader to know what ordinary ratios for victorious and defeated armies were.[23] The expectation of

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[19] E.g. Thucydides 1.63.3, 3.109.2, 4.44.6, 4.101.2, 5.74.2, 6.71.1, 8.25.3; Krentz (1985).
[20] Thucydides 3.113.6, 5.68.
[21] E.g. Xenophon, *Anab.* passim; Polybius 1.34, 3.84, 3.117, 10.32, 15.14, 18.27; Claudius Quadrigarius *FRHist* 24 F63 (Livy 33.10.8), F64 (Livy 33.30.6-11), F67 (Livy 38.23.10).
[22] *FRHist* 24 F67 (Livy 38.23.8).
[23] E.g. Livy 10.35.2 This is not the place for such an investigation, but careful examination of the casualty figures and mentions of scale by Livy should yield an approximation of expected death levels

accurate casualty figures could equally have come from this Roman experience as from the tradition of Greek historiography.

This expectation suggests that first-century readers believed writers could access information about battle casualties. This indicates that, at least in the first century, a method of tracking manpower within legions was exercised by generals.[24] The same was not necessarily true of the Middle Republic, but suggests that it may have been. Further, Livy is explicit on several occasions that reports, both from written letters and oral testimony, were announced *in contione* following their discussion in the senate.[25] The use of *volgata sunt* in particular, meaning 'made known or published', in a context indicating usual practice suggests that this was a common occurrence usually not reported by Livy.[26] Indeed, Livy never mentions the public announcement of a commander's and legions' deeds in the context of a triumph, but nonetheless expects his reader to understand that they were known by the people. However, this does not prove that casualty figures were announced alongside the report of action. Despite this, that Livy expected his readership to recognise a 'normal' casualty figure suggests that even if deaths were not always announced they were reported frequently enough for such knowledge to be commonplace.

What, then, was the source of Valerius' (and so the majority of Livy's) casualty figures? Valerius appears to have been the first Roman historian to regularly include such numerical details in his work; earlier writers had only done so sporadically.

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in battles such as that undertaken for Greek hoplite battles by Krentz (1985). Rosenstein (2004) 109 attempted this, concluding a mortality average of 8.8% for the first 32 years of the second century.
[24] Polly Low (pers. comm.) pointed out that this expectation could have been conditioned by previous works and does not necessarily reflect administrative reality. However, much of the readership of first century histories would have been familiar with military procedure. The acceptance of the figures indicates that such knowledge was considered plausible.
[25] Livy 23.29.17, 27.7.9, 30.17.3, 30.40.3, 32.31.6, 33.24.4, 33.25.8.
[26] Livy 23.29.17 – *quae posteaquam litteris Scipionum Romae volgata sunt.*

However, 'plausible invention' does not have to be the explanation for his greater detail. Rich argues that Valerius was responsible for the classic structure of annalistic history found throughout Livy's extant work from book 21. This comprised: senatorial decisions concerning military recruitment and deployment, including a list of the active and reserve legions, at the beginning; events in the field in the middle; and omens and elections at the end. Rich argues that Valerius developed this formulaic, thematic and strictly chronological structure through archival research.[27] So influential was this framework that even when largely following another author, such as Polybius, Livy applied it.[28] This further demonstrates that Livy did not unthinkingly copy his sources. Most significantly here, it suggests that Valerius had access to records detailing campaigns of the Middle Republic.

Rich is careful to state that using an archive does not mean that Valerius did not also use 'plausible invention', and that separating the two is not simple. He points to the uncertainties with the legion lists from the beginning of each year.[29] While these lists are not problem-free, Rich falls into the trap he warns against here: it cannot be definitively stated that the legion lists were taken directly from a senatorial list, but by the same token it cannot be established they were not. From a tactical and administrative standpoint, keeping a record of legions was a sensible procedure, especially as the senate decided their deployment each year. Their existence can be further surmised from the recruitment lists discussed previously (II:v, III:ii). Even if Valerius did not find lists like those given by Livy, the senatorial decrees on recruitment and deployment repeatedly mentioned by Livy would have made the

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[27] Rich (2005) 156; reiterated Rich (2013).
[28] Rich (2005) 156-157. Cf. e.g. Polybius 3-4 with Livy 21-22.
[29] Rich (2005) 160.

compilation of one relatively easy for either Livy or Valerius.[30] Any problems with

the lists should perhaps be attributed to confusion or lack of clarity on the part of the

author(s) rather than fabrication.

In terms of casualty figures, similar conclusions can be drawn. Rich argues that

casualty reports originated in commanders' dispatches, although they may have been

subject to later inflation.[31] However, there is little reason why Valerius could not

also have taken casualty figures from the senatorial records. Ancient authors provide

ample evidence of written and oral reports between generals and the senate

concerning their activities and the state of their legions.[32] The accounts of events

such as battles are usually preceded or followed by a notice of the arrival of a

commander's letter. This suggests that the account itself could originate from the

letter. It is debatable whether the letter as a whole was transcribed into the senatorial

records, but it is highly plausible that details from it were. If so, Valerius could have

taken directly from the senatorial records casualty figures which themselves came

directly from the letters of generals in the field.

An analysis of the style of military writing is instructive at this juncture. It has been

argued that a high frequency use of the ablative absolute is indicative of the military

style. Julius Caesar's *commentarii* are considered archetypes of this genre. [33]

Plautus' use of the same form indicates that it was a specific style of military report.

The second-century playwright's work contains very little ablative absolute. This

makes the report of ex-soldier Sosia on his master's martial achievements all the

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[30] E.g Livy 26.1.1-13.
[31] Rich (2005) 148; cf. Walsh (1994) 142.
[32] Written: Polybius 10.19; Livy 22.11.6 *inter alia* 45.2.2; Plutarch, *Fab. Max.* 3.4, 7.4; Appian, *Hisp.* 9.49, *Syr.* 7.39. Oral: Polybius 10.19; Livy 22.49.10 *inter alia* 45.2.2, including 23.25.5 and 44.20.2-7 explicitly on forces; Plutarch, *Cato Mai.* 14.3, *Fab. Max.* 3.4, 16.7; Appian, *Pun.* 7.48.
[33] Leeman (1963) 176-7; Adams (2005) 73-5.

more marked. The speech begins with a string of three absolutes which set the tone.[34] Both Leeman and Adams conclude that this deliberate change in style is not a parody of tragic or epic style, but a deliberate use of military style. [35] As such reports were read to the people as well as the senate, Plautus' audience would be familiar with the style and understand Plautus' aim in placing it in Sosia's mouth. Caesar's style was not new, but a continuation of a much older style of writing.

With the ablative absolute established as a sign of the military style, it would be ideal to examine the surviving works for evidence of this style which may point to the use of such military reports by Livy through Valerius Antias. The majority of the reports which directly accompany the mention of a letter or envoy are given in the accusative-infinitive construction, as expected of a report of a speech or letter.[36] Moreover, Leeman highlights that the first book of Caesar's *Gallic Wars* is 32% indirect speech, a much higher proportion than found in other historians.[37] However, in every case it is not possible to be certain of the letter's original form from the construction of the text, let alone if Livy or Valerius had access to it. When an ablative absolute is found in a battle account, it is impossible to judge if the form reflects the original letter or if Livy adopted the appropriate military style. Despite this, that Livy mentioned a letter on almost all occasions when he discussed issues abroad, either before or after the account, suggests that the account derived from a letter whether directly or indirectly. While use of letters seems to be indicated by their frequent mention, it is impossible to be sure whether or not Valerius, and so

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[34] Plautus, *Amph.* 188-9 – *uitores uictis hostibus legiones reueniunt domum/ duello exstincto maxumo atque internectis hostibus.*
[35] Leeman (1963) 176-7; Adams (2005) 73. It may be questioned, as Beard (2007) 203 does, why Cicero's dispatches to the senate do not follow this form. However, this probably comments more on Cicero's self-presentation than the nature of military reports.
[36] Examples throughout Livy 22.11.6 - 44.16.2, see especially 23.21.2-3, 23.24.1, 23.24.1, 23.29.17, 23.34.10-12, 23.48.4.
[37] Leeman (1963) 176-7. It is ten times the frequency found in Cicero.

Livy, used military dispatches as direct evidence. It is possible that the inclusion of letters was a result of a note in the senatorial record reporting their arrival; they need not have been used in their entirety by the ancient authors. However, the frequent mention of dispatches demonstrates that, at whatever distance they were used by historians, frequent communication between Rome and the field was an ordinary part of Mid-Republican warfare.

The discussion of Varro's letter in 216 following Cannae (III:ii) has already demonstrated that it was possible for commanders to send relatively detailed news to Rome by letter.[38] If Varro could do this in an emergency, there is no reason to believe that other generals did not do so routinely. In addition, an examination of the fragments of Valerius Antias reveals that the majority are concerned with numbers, either casualty figures or treasury deposits.[39] If Valerius consulted the records directly, and is giving numbers connected to the treasury, it suggests that he used some kind of treasury record.[40] Thus these numbers are not suspect, and have been accepted by modern scholars without sceptical comment. It is therefore plausible that casualty figures can be similarly attributed to a roll from the records. There is no reason whatsoever to believe that the figures are a wholesale invention of Valerius.

A further doubt of modern scholars is the possible difficulty for generals of generating these records. Brunt argued that commanders did not take the time and trouble, especially following a defeat, to count the corpses.[41] If a defeated legion

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[38] Livy 22.56.1.
[39] *FRHist* 25: casualty figures F23, F27, F33, F34, F35, F36, F38, F39, F40, F43, F45, F47, F48, F65, F66a, F66b; treasury figures F28, F37, F51, F54, F62, F63.
[40] Jacobsthal (1943) 307, distrustful of Antias, argued that Livy's triumphal details came from *aerarium* records when not 'invented' by Valerius.
[41] Brunt (1971) 694.

had to withdraw swiftly from the field, there would not be time to perform this enumeration. Polybius' account of Zama indicates how much carnage there could be following a battle;[42] it may not have been possible to identify all the bodies, and would have taken considerable time. On the other hand, the ancient historians provide evidence of commanders burying the dead.[43] This does not imply that a body-count took place, but does suggest that it was possible. That ancient writers mention this activity suggests it was unusual and thus noteworthy. However, it usually occurs to contextualise other events. As such, it appears that Roman commanders were able to count the dead should opportunity and desire coincide.

A fragment of Cato's *Origines* provides an insight here.

> *Cum saucius multifariam ibi factus esset, tamen volnus capiti nullum euenit, eumque inter mortuos defetigatum uolneribus atque quod sanguen eius defluxerat cognouere. Eum sustulere, isque conualuit.* (*FRHist* 5 F76 = Gellius, *NA* 3.7.19)

> While he [Q. Caedicius, a military tribune] had been wounded in many places during the battle, but he received no head wound, and they recognised him among the dead, worn out from wounds and because his blood had flowed out. They lifted him up, and he recovered.

The passage refers to the aftermath of a First Punic War battle in which a military tribune, Q. Caedicius, led what was effectively a suicide mission of 400 men in order to save the legion from defeat. Caedicius was found during a search of the battlefield. The passage has received a lot of attention in modern scholarship, largely focused on the linguistic and narratological features of this early Latin

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[42] Polybius 15.14.1-3.
[43] Livy 23.36.4, 23.46.5, 27.2.9, 37.44.3; Plutarch, *Aem.* 22.5; Appian, *Syr.* 6.36. The first-century AD tactician Onasander goes so far as to consider it a primary duty of a commander, Onasander, *Strategos* 36.

quotation.[44] In particular, the story is remarkably similar to that of M. Calpurnius

Flamma and seems to have formed a *topos* concerning self-sacrifice and *devotio* in

Latin historiography.[45] The events described have received little treatment. For the

purposes of this discussion, the importance is not the style (although clarity may be

added) but that the act of examining the dead could become part of a *topos*. This

suggests that searching among the dead was a usual activity when time allowed.

Goldberg questions Cato's emphasis. 'Is the key point that they found Caedicius

alive among the dead, or that they recognised him because his face was uninjured?'[46]

This is also a useful line of questioning for a historical examination of the passage.

It has been suggested that those searching among the bodies believed that everyone

was dead.[47] If this was the case, amongst the dead would have been the obvious

place to search, but the lack of a head wound allowing identification was equally

important for Caedicius' recovery. However, there is nothing in the passage to

indicate whether the rescuers believed him dead or not. As all the men had fallen, it

is possible that the search was a more general one for any man who had fallen

injured on the field. With at the least the majority believed dead, anyone fallen but

still alive would necessarily have been *inter mortuos*. Setting aside any linguistic

intention, historically the detail demonstrates that the majority were dead. This

indicates that effort was expended to deal with the dead and wounded.

However, Cato does not reveal the exact purpose of the search, most likely because

he believed his readership were already familiar with the process. Nonetheless, it is

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[44] Basanoff (1950) 260-1, (1951) 281-4; Goldberg (1986) 174-5; Calboli (1996) 18-22;
FRHist III 121-4.
[45] [Livy], *Periochae* 17; Livy 22.60.11; Fronto, *Ep.* 1.5, 4.5; Pliny, *HN* 22.11; Florus 1.18.3;
Basanoff (1950) 260, (1951) 281.
[46] Goldberg (1986) 174.
[47] *FRHist III* 124.

possible to examine this further. The choice to move Caedicius despite his apparent

death may indicate a special care for him. If so, this suggests a particular concern for

discovering the fate of more senior individuals, as seems to be reflected in the

inclusion of their names in the casualty reports as transmitted by Livy (see below).

On the other hand, the burial or cremation of the dead was a duty to be undertaken

by the survivors if time and tactics permitted.[48] For this to be done, all the dead

needed to be moved, a point at which an identification could be made if possible. In

the case of Caedicius, the lack of a head wound made this possible, coinciding with

him regaining consciousness.

In answer to Goldberg's question, it seems that Cato was placing equal emphasis on

Caedicius' location and wounds to create (or repeat) a plausible narrative while at

the same time providing an *exemplum* of Roman virtue resulting in a pseudo-

resurrection. For this discussion, Cato's narrative demonstrates that as much care as

possible was taken to examine the bodies of the dead and find survivors. It was

through this process that a Roman general was able to generate at least a number of

casualties, and wounds allowing, identify them. Such action was not always

possible, but the case of Caedicius coupled with other passing mentions of the

practice nonetheless demonstrates that this effort was made when possible.

However, the ability to gain accurate casualty figures does not guarantee that

generals transmitted them as assiduously. A plebiscite of 62 sought to ensure the

reliability of casualty figures in dispatches.[49] The law is later than the period under

discussion here, but suggests that the practice had been usual for some time and was

subject to adjustment by generals, presumably to make their achievements seem

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[48] E.g. Livy 23.36.4, 23.46.5, 27.2.9, 37.44.3; Plutarch, *Aem.* 22.5; Appian, *Syr.* 6.36.
[49] Valerius Maximus 2.8.1.

more impressive. Orosius also made the complaint that writers had a tendency to inflate enemy losses and deflate Roman losses.[50] In mitigation, this was in part an argument to support his aim of debunking the idea of a 'golden past' and Orosius was concerned more with history writers than the reports of dispatches, but nonetheless highlights some ancient scepticism over the reporting of casualty figures.

While demonstrating that casualty figures were a regular part of dispatches, this once again raises the question of the reliability of the numbers transmitted. That Valerius Antias obtained the figures from the senatorial record is no guarantee of their accuracy if commanders themselves were deliberately sending erroneous reports to the senate. On the other hand, the context of the law should not be overlooked. In the previous year Pompey had defeated Mithridates VI;[51] the First Triumvirate was only two years away.[52] With the power plays of this decade's influential men, it is plausible that the tribunes were reacting to these immediate issues rather than a longer term falsification culture. This does not mean that earlier generals did not attempt the same type of self-aggrandisement, but does suggest that it had not become a serious problem until the 60s. Thus, the law helps to demonstrate that accurate casualty figures were a regular feature in Mid-Republican dispatches.

It is possible to largely circumvent the problem raised by the law of 62, however. Rosenstein points out, to counter Brunt, that a general did not need to count the bodies of the dead to ascertain the number of casualties.[53] The number of living could be subtracted from the legion's original strength to give the number of

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[50] Orosius 4.20.7-9.
[51] Appian, *Mith.* 111-112, *BCiv.* 2.9.
[52] Appian, *BCiv.* 2.9.
[53] Rosenstein (2004) 109.

deceased. Brunt highlights that this does not take into account any prisoners or deserters.[54] This is true, but nonetheless demonstrates that commanders could calculate their operational strength reasonably quickly following a battle without needing to see the dead. For operational purposes, the number important to a commander was those remaining in the legion, not a breakdown of the dead, imprisoned and deserted.[55]

The passage in which Valerius Maximus recorded the law of 62 also provides a possible insight into why casualty figures may have been falsified. Although relating specifically to enemy deaths, it is worth noting. Valerius states that in order to triumph at least 5000 enemy must have been killed in one battle.[56] Beard and Brennan have convincingly argued that these 'rules' were flexible and based on precedent.[57] Nonetheless, generals may have wished to play safe and inflate their figures if casualties were below this level. Deflation of Roman casualties, as discussed by Orosius, could have been fuelled by the same concerns. However, inflation of enemy casualties in letters to the senate had a much smaller strategic impact on tactical operations than deflation of Roman casualties. As will be seen (IV:iii), reinforcements were sent to the legions on the basis of casualty reports in dispatches. Deliberately understating the number of Roman dead would in the long term leave the legions understrength and thus disadvantage them. This does not mean that underreporting did not occur, especially on shorter campaigns, but indicates that generals had reason not to. Attitudes towards reporting enemy and

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[54] Brunt (1971) 694.
[55] For the use and importance of this figure see IV:ii.
[56] Valerius Maximus 2.8.1 – *lege cautum est ne triumpharet nisi qui quinque milia hostium una acie cecidisset*
[57] Beard (2007) 209-211; Brennan (1996) 318; see esp. Livy 40.38.8-9. Contra Mommsen (1893) 144-55; Weinstock (1971) 60; Develin (1978) 435. See Vervaet (2014) 68-130 for the most recent treatment with full bibliography.

friendly dead were unlikely to have been the same as they were not used for the same ends.

Another suggestion can be made relating to the triumph. In 211 Marcellus was denied a triumph on the grounds that his legions had not returned to Rome with him.[58] Develin has argued that the words attributed to Marcellus by Livy suggest that he was aware the army's absence would be an obstacle.[59] The return of the legions was a clear sign of a campaign's completion, but there may be another reason. It is plausible that the legions' presence allowed the senate to confirm the commander's dispatches. Even if the legion was extremely loyal to the commander and willing to support his version of events, the legions' sizes would reveal the true casualty figures, as would the records of individuals kept with the legion (see IV:ii-iv). Only with the full return of a legion accompanied by its records could the truth be judged and a triumph awarded. If this was the reason for the legions to be present alongside the commander, it points to accuracy in dispatches as a commander hoping for a triumph would eventually be caught in a lie.

The nature of some casualty reports provided by the ancient sources adds to the impression of a detailed legion list held within the legion such as that proposed earlier (II:v). The casualty reports sometimes included the names and ranks of the more senior deceased.[60] The lists read very much like a report of significant losses, suggesting that they may have been lifted more or less as they were from a general's report.[61] These men's names, in particular military tribunes and quaestors, were

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[58] Livy 26.21.2.
[59] Develin (1978) 432.
[60] Polybius 8.35; Livy 25.34.11, 25.36.13-14, 27.1.12-13, 27.27.7-9, 33.22.7-8, 33.36.4-5, 34.47.2, 35.5.14
[61] E.g. Livy 35.5.14 – 'more than five thousand soldiers, Roman and allied, were lost, twenty three centurions, four prefects of the allies and Marcus Genucius and Quintus and Marcus Marcius military tribunes of the second legion' *supra quinque milia militum, ipsorum aut sociorum, amissa,*

more accessible to the commander than those of ordinary soldiers because they were fewer in number. More often notices do not include names, but do occasionally give the impression that Livy's source may have contained them.[62] Nonetheless, the need to keep detailed records for pay suggests that a legion list was kept and updated with individual information. Any count after a battle could include not only the number of survivors but their names. Those found to be missing could be identified from the legion list and information sent to the senate. The inclusion of the higher ranks' names does not indicate that commanders regularly sent lists detailing all the dead, but such detail does imply that at the least a number was sent along with details of the more prominent. In terms of military administration within the legion, the Livian casualty figures reveal that commanders had access to both the number and names of all those under their command who remained alive and uncaptured.

The Battle of Cannae provides a good example and test case for the operation of casualty reports. The sources provide divergent evidence for both the number of combatants and the number killed, with Livy and Polybius both at odds and internally inconsistent.[63] There was confusion on the subject even fifty years after Cannae. The numbers fielded and killed are not relevant here, and so will not be discussed.[64] The focus must fall on the free (i.e. not captured) survivors. Internal legion records were most probably destroyed or lost as a consequence of Hannibal's victory; only the number of survivors as enumerated after the battle is likely to

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centuriones tres et viginti, praefecti socium quattour et M. Genucius et Q. et M. Marcii tribuni militum secundae legionis.

[62] Polybius 2.11, 10.32; Livy 21.59.8-10, 23.11.9 (a Carthaginian report), 27.1.12-13, 30.6.8-9, 30.18.14-15, 33.25.9, 34.47.2, 35.5.14, 38.24.8, 39.31.14-16; [Livy], *Periochae* 22.10; Plutarch, *Marc.* 24.3, 29.5-9; Appian, *Sam.* 4.6, *Han.* 4.25, *Pun.* 15.102.

[63] Polybius 3.117, 6.58; Livy 22.49.13-18, 22.52.1-4, 22.59.5-6, 22.60.14, 23.11.9; Appian, *Han.* 4.25.

[64] E.g. De Sanctis (1917) 131-5; Toynbee (1965b) 67-8; Brunt (1971) 696; Lazenby (1978) 76-85; Sabin (1996) 67; Daly (2002) 26-29, 45, 202.

reflect a senatorial record. Livy set this at 32,500, which, as Toynbee points out, fits with the formation of three legions from the survivors.[65] The total of captured and killed derives not from a count of the dead but of survivors. The correlation between the two numbers indicates that the senate was concerned with the operational force available to them, not about the large number of prisoners or dead. This accords with the conclusions concerning Varro's letter to the senate following the battle (above III:ii) and with the more general conclusions about intra-legion administration at issue here. The aftermath of Cannae was unusual because the senate compiled a list of the whole standing force rather than a commander of his army, but the same principles appear to apply.[66] In an emergency on a macro scale the senate fell back on the administrative form well-established within the legions.

Through examination of the casualty figures it is possible to conclude that Republican Roman legions operated with a relatively high degree of bureaucracy. Although the extant casualty figures may not in all cases be entirely accurate, whether due to scribal error, artificial emendation or rounding by ancient writers, their presence in the histories reveals that Roman commanders were capable of and required to keep a detailed record of their men. Even if generals slightly misrepresented their achievements before the senate through casualty figures, particularly in the first century, they themselves understood the true nature of their forces. Thus, the legion necessarily encompassed a great deal of administration to keep it running efficiently. The actions following Cannae indicate that this

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[65] Toynbee (1965b) 67 using Livy 22.49.15-18. Polybius gives about 3500, 3.117.
[66] It could be argued that the senate was innovating by compiling a list of all survivors in order to gain an accurate picture of their forces, rather than utilising a system already in place. However, for the senate to compile this list they required the initiative of the remaining senior officers in the field. This suggests that Scipio and Varro were not doing anything unusual in reviewing the survivors.

administration was in place by the end of the third century, and may well originate substantially earlier.

ii: Records and the role of the quaestor

It is possible to see more detailed record keeping than just the numbers of the living and information about senior officers in the surviving evidence of the Middle Republic. Knowing the number of men in a legion was not just necessary for tactical reasons. Polybius states that generals changed their camp to fit arrivals and departures, indicating that a record of the numbers present was kept and regularly updated.[67] It is unclear, however, whether the commander would have been concerned with individuals or whether Polybius is referring to the arrival of larger units. More detailed information can be obtained by examining the role of the quaestor on campaign. The quaestor who accompanied each consul with his army was responsible for the finances of the army, which encompassed controlling funds for paying, arming, clothing and feeding the men.[68] Erdkamp highlights that Livy refers to a Carthaginian officer responsible for the Punic corn supply as a quaestor, indicating that this was part of the usual role of a Roman quaestor.[69] The quaestor was roughly equivalent to a modern quartermaster. Rosenstein argues that a list of recipients was necessary for quaestors to perform their duties fully.[70] This section will examine the quaestor's role in each of his key duties in order to demonstrate that a record was kept for each individual on campaign.

It is not necessary here to discuss the origin and development of the quaestor's role, suffice to say that it had been since its inception early in the Republic an

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[67] Polybius 9.20.
[68] Polybius 6.39.15, 10.19.1; Sallust, *Iug.* 29.4.
[69] Erdkamp (1998) 103; Livy 25.13.10.
[70] Rosenstein (2004) 109.

administrative position linked to the use of state finances both in Rome and on campaign.[71] It is, however, worth briefly highlighting the position and role within the legion. Roth argues that the space Polybius allotted to the quaestor in the camp reflects the number of men and wagons beyond the legion proper which the quaestor commanded in order to carry out his duties.[72] Quite who these men were is never made fully clear, but it suggests that the quaestor had control of the baggage train which accompanied Mid-Republican armies.

Where did the quaestor stand in the military hierarchy? Romans recognised the importance of a single commander; the alternated command in the run up to the battle of Cannae is an obvious example of this in practice.[73] However, Polybius does not mention the quaestor in his account of legion recruitment, suggesting that he and his staff lay slightly outside the hierarchy despite their integral role. This may in part be due to the fact that the quaestor was, by the third century, elected and then his *provincia* allotted as with the consuls.[74] The quaestor functioned as a representative of the senate and the treasury. It was to the quaestor that the funds for a campaign were released, and by the quaestor that records of spending were kept.[75] The quaestor as well as the commander kept financial records, indicating that the part of the quaestor's role was to be a check against corruption.[76] The scrutiny under which these records could come only emphasises both the importance of accounting and the potential for tension between commander and quaestor.[77]

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[71] Cf. Tacitus, *Ann.* 11.22.4-6 (*ut rem militarem comitarentur*); Mommsen (1894) 223-9; Latte (1936) 24-33; Harris (1976) 92-106.
[72] Roth (1999) 258; Polybius 6.32.8.
[73] Livy 22.27.5-11.
[74] Tacitus, *Ann.* 11.22.4-6.
[75] Cicero, *Verr.* 2.1.14.36.
[76] Daly (2002) 122.
[77] Rosenstein (2004) 253 n.9; Plutarch, *Ti. Gracch* 7.1-2; Livy 30.38.1; Thompson (1962) 353; Cicero, *Fam.* 5.20.

The quaestor's role as a senatorial representative to some degree independent of the general could cause friction. Although outside the scope of this discussion, the attitude of Verres' quaestors in the first century is instructive here. Cicero was given charge of the prosecution of Verres over Verres' own quaestor, who wished to act as prosecutor due to personal injury done to him.[78] Quite what this harm involved is not specified, but it can be inferred that the injury was due to a manipulation of accounts in the face of the quaestor. Interestingly, Cicero later goes on to complain that the quaestors stationed in Sicily hindered his investigation due to loyalty to Verres.[79] For Verres' corruption and embezzlement to have been as successful as Cicero argued, the cooperation of the quaestors who managed the parallel accounts was required.

This points to the method by which these potential tensions could be relieved, a 'special relationship' between general and quaestor.[80] Once again, Verres provides a good example. Verres served as quaestor to Gnaeus Carbo. During this period he was accused by Cicero of embezzling 600,000 HS from army funds. Cicero's attack focused as much on the 'violation of the personal tie imposed and sanctified by lot' as the theft itself.[81] This indicates that the appointment as Carbo's quaestor created not only a state obligation but a personal relationship to be valued by both parties. It suggests that, as Cicero states, abandoning the personal tie was tantamount to deserting the army as a whole.[82] Maintaining the relationship overrode and smoothed any potential tension from the quaestor's more ambiguous position in the

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[78] Cicero, *Verr.* 2.1.6.15 – *ut ei qui istius quaestor fuisset, et ab isto laesus inimicitias iustas persequeretur.*
[79] Cicero, *Verr.*2.2.4.11.
[80] Mommsen (1894) 266.
[81] Cicero, *Verr.* 1.4.11 – *sortis necessitudinem religionemque violatam.* Verres was apparently able to get away with this theft despite two sets of books because he was also keeping the consul's on his behalf (2.1.14.37).
[82] Cicero, *Verr.* 1.4.11.

legion. The defence of Verres' quaestors for his abuses in Sicily is a demonstration of this relationship in action, although with the opposite outcome from that desired by the state.

The personal relationship can also be seen in the Middle Republic. When Cato the Elder served as Scipio's quaestor in 204 the two clashed over the use of funds.[83] However, this conflict should not be overstated. Cato is recorded as complaining about Scipio, but there is no evidence that he attempted to prevent Scipio's spending more actively. This seems to be the 'special relationship' in action; however, although the quaestor was a senatorial representative, he was nonetheless an inferior magistrate under his commander's *imperium*. Indeed, Polybius states that quaestors faithfully obeyed their consuls.[84] There is no need to retroject later antagonism between Cato and Scipio to 204 in order to explain this relatively minor incident, although it may well be why ancient historians considered it noteworthy. Rather, it may be best to see Cato's complaint as a demonstration of the quaestor's role and the limits of his power over his commander.

As Roth highlights, the quaestor's role was primarily an administrative one, but he could take over were the commander of the legion killed.[85] Again, this should not be surprising. In order to become eligible to stand for the magistracy, a quaestor had (in theory) to serve ten years/campaigns in the army.[86] With the possible exception of the senior military tribunes (who had served for ten years and were occasionally consulars[87]) and any lower ranking career soldiers, the quaestor was the most

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[83] Plutarch, *Cato Mai.* 3.5-6.
[84] Polybius 6.12.15.
[85] Roth (1999) 258; Appian, *Hisp.* 11.63.
[86] Polybius 6.19.4.
[87] Polybius 6.19.1. It is worth noting that in 216 Livy (22.49.16-17) reports more than 80 senators dying at Cannae including consulars. It must be assumed that these men were holding positions such as military tribune. While Cannae must always be considered an abnormal example, it may

experienced officer on the ground and the only one holding a magistracy. Even if his exact position in the hierarchy ran parallel to the legion proper, the quaestor would be the obvious candidate to assume control.[88]

There is only one surviving set of quaestor's accounts of a legion; these were included by Cicero, apparently in full, in his prosecution of Verres. As mentioned, Verres was accused of embezzling from the consul Carbo whilst his quaestor. Cicero produced the financial records of the campaign to support the allegation.

> *'Accepi' inquit 'viciens ducenta triginta quinque milia quadringentos X. et VII. nummos. Dedi stipendio, frumento, legatis, pro quaestore, cohorti praetoriae HS mille sescenta triginta quinque milia quadrigentos XVII. nummos. Reliqui Armini HS sescenta milia.'* (Cicero, *In Verrem* 2.1.14.36)

> It said 'I received 2,235,417 HS. I gave for pay, grain, legates, for the quaestor and for the praetorian cohort 1,635,417 HS. I left at Arminium 600,000 HS.'

The passage reveals several useful facets of the quaestor's role and his accounts. Cicero chose to quote this account due to his incredulity at its form.[89] The implication is that much more detail should have been included, possibly listing each payment separately and resembling single entry book-keeping rather than a brief note. Unfortunately, Cicero expects his audience to know how proper accounts should appear, so the appropriate form is not elucidated. Despite this, it can be concluded that quaestor's accounts should have been a great deal more detailed.

Despite this lack of specificity regarding proper form, the passage reveals and confirms other details. Firstly, the list of items to be paid for by the quaestor agrees

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nonetheless indicate that at least in the third century it was not unusual for holders of high magistracies to serve again in less senior positions.

[88] Mommsen (1894) 269 argued that the quaestor was the most senior officer after the general based on the number of guards placed by his tent (Polybius 6.35.4).

[89] Cicero, *Verr.* 2.1.14.36

with that given by Polybius in his discussion of military matters.[90] This suggests

that, while conclusions drawn from first-century evidence do not always apply

equally to the third and second, the quaestor's role was similar and it is not

unreasonable to test such conclusions against the Middle Republic. Secondly,

despite the account's brevity it contains very specific numbers. While the remaining

figure of 600,000 HS may appear suspiciously round, and thus the figure subtracted

for costs calculated to arrive at such at 600,000 HS viewed with equal suspicion

(particularly given the embezzlement charge), the initial amount seems to be exactly

what the treasury provided Verres. This has two implications: that this figure could

be checked against treasury records to demonstrate its accuracy; and that the

quaestor was expected to deal in specific values, not estimates or round figures. As

the Mid-Republican quaestor performed the same role, it is not unreasonable to

suggest that the same, or at least similar, standards applied.   This will be supported

by the investigation of military pay given below.

In order to understand the importance of the number of men in the legions to

successful army operation it is necessary to foray into logistics. Understanding

Republican logistics is difficult at best, as it tends to be overlooked by the sources

unless something went awry.[91] On a very basic level, in order to have enough food

to feed a legion, it was necessary to know how many men needed to be fed.

Undersupply was potentially disastrous. However, the issue is more complex. In

order to understand the intricacies of the quaestor's role as a food supplier, several

aspects of supply method must be examined.[92]

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[90] Polybius 6.39.15.
[91] Erdkamp (1998) 46; Roth (1999) 3.
[92] Much more detailed and comprehensive studies have been completed by Erdkamp (1998) and Roth (1999), on whose work much of this section is based.

Firstly, the movement of supplies with the legion. Seemingly, the most obvious way to keep a legion supplied and independent, especially in hostile territory, was to carry food with the legion. However, any calculation of the amount of food required to feed 4500 men even for a short period quickly reveals that this was impossible. Polybius states that an infantry man was given two thirds of an Attic medimnus of wheat per month.[93] It is generally accepted that this translates to Roman measures as four *modii* of wheat a month per man.[94] This is approximately 1kg a day per man.[95] For a legion of 4500 men this means that each month 18,000 *modii* or approximately 135,000kg of wheat were required. For a legion of 6000 men this was increased to 24,000 *modii* or approximately 180,000kg. This must be doubled to cover the allied contingent. Further, this does not include other personnel within the legion, including the quaestor himself and his staff. The quaestor had a large section of the camp to house the baggage train, and the men and animals involved in this as well as cavalry horses also required feeding. Moreover, if Feig Vishnia is correct that the *lixae* who accompanied the legion were also fed by the legion, the number to be fed and thus the amount of grain required was again increased.[96] The number who made up this accompaniment is uncertain, but may be as high as the legion itself.

In addition, the higher the number to be fed, the greater the increase of men and draught animals required in order to transport their food and fodder. In a study on the early modern army, Perjes calculated that for an army of 90,000 to be self-sufficient for one month it required a column of 200km to carry provisions, made up

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[93] Polybius 6.39.13.
[94] Erdkamp (1998) 27; Gilliver (2001) 345. Contra (3 *modii*) Walbank (1957) 722; Duncan-Jones (1982) 146 with caveats.
[95] Garnsey & Saller (1987) 89.
[96] Feig Vishnia (2002) 268-70 with Sallust, *Iug*. 44.5. Feig Vishnia argues that the *lixae* were separate from the merchants and small-time traders who followed legions. They were particularly involved with capturing slaves on campaign as well as probably helping with forage.

of 11,000 carts, 22,000 drivers and helpers and 50-70,000 draught animals.[97] As

Erdkamp points out, this was impractical to the point of rendering the army unable to

manoeuvre and impossible even for an army half that size.[98] Erdkamp has

demonstrated that even if the men carried a large proportion of their own rations a

mule train of at least several hundred mules would always have been necessary.

Despite this, it would only have been possible to operate in this way for a few days.[99]

Thus a legion could not carry with it all the grain required for a month, let alone a

whole campaign season. The legion would necessarily be reliant either on constant

resupply or local forage. Both of these methods carried their own problems.

Resupply required a magazine to be created close to the combat area. Ideally this

would be in an allied or occupied fortified city with easy access to supply routes both

to the legion and to the grain source. Factors such as vulnerability, sea conditions,

availability of transport and harvest yields could all have an impact on supply

effectiveness.[100] Similarly, living off forage had its own difficulties. In winter, all

the seed grain had been sown in the autumn and remaining stocks held by locals

would be dwindling as they ate them. A static campaign would quickly go through

local supply even at harvest time. Living off the land alone was only a plausible

option when engaged in a moving campaign during the harvest period. Cato the

Elder's self-sustaining Spanish campaign of 195 is an example of a commander

successfully doing so. However, it was far from the norm as the presence of

contractors wishing to supply the army demonstrates.[101]

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[97] Perjes (1970) 11.
[98] Erdkamp (1998) 20.
[99] Erdkamp (1998) 75. For example, Erdkamp calculates that 3500 mules would be required to carry food and fodder for ten days if the men carried eight days' worth of their own rations.
[100] Cf. Vegetius, *Mil*. 4.39; Livy 23.48.10-49.3.
[101] Livy 34.9.12 - '*bellum' inquit 'se ipsum alet'*[…] *id erat forte tempus anni ut frumentum in areis Hispani haberent*

As the organiser of an army's food supply, the quaestor had to balance the advantages and disadvantages of all these supply methods. Each campaign would have different circumstances for the quaestor to manage, not only concerning the local area and time of year but also the yield of the previous harvest. Several modern scholars have concluded that the acquisition of supplies and the exact people involved would thus have been quite *ad hoc*, reacting to circumstances and the demands and aims of the campaign and commander.[102] The number that the quaestor had to keep fed was large, but the large difference in the amount of wheat required for 4500 versus 6000 men highlights that even a relatively small change in the strength of the legion could have potentially huge effects on what the quaestor needed to acquire. Erdkamp argues that commanders could chose to operate 'at the fringe of the logistically possible' to gain an advantage, although this increased the risk of encountering problems.[103] Such a strategy made the number of men to be fed even more crucial. A commander could gain a greater advantage if it was known that only 5500 men rather than 6000 needed to be fed. On the other hand, operating with such narrow margins meant that even a small undersupply could potentially starve the legion if another method could not be brought to bear. In order to successfully supply the army at a level that met tactical requirements but did not endanger it through starvation, the quaestor needed an accurate record of the men present.

Non-cereal elements of the military diet only added to the complexity of the quaestor's work. Appian reports that the military diet included wine, salt,

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[102] Erdkamp (1998) 153; Gilliver (2001) 346.
[103] Erdkamp (1998) 142.

vinegar/sour wine, oil and meat in addition to wheat.[104] Aulus Gellius states that

soldiers were not required to hand over any fruit foraged, suggesting it supplemented

the diet as and when it could be procured.[105] Moreover, Appian mentions measures

taken when supplies had failed.[106] Together, the evidence indicates that the use of

local resources was particularly important for providing perishables to supplement

the wheat ration. This necessarily resulted in a less regular, more varied supply

requiring regulation based on the number of men present. For example, if animals

were butchered for meat, the quaestor needed to know how many were to receive a

meat ration to ensure that the right number of animals was slaughtered. Any leftover

meat would quickly have spoiled and been wasted, or required time to salt or smoke.

Once again, it is clear that even a relatively small difference in the actual strength of

the legion compared to its original or paper strength could have a large effect on how

the army was to be supplied.

The second main function of the quaestor was the control of military pay. It is by

examining this facet of the quaestor's role that the detail of records kept is revealed.

It is not at issue here when military pay was introduced and how (or if) it rose (or

fell) before the changes of Julius Caesar.[107] For this thesis, it is not how much

legionaries were paid that is significant, but how this pay was calculated and

recorded to ensure that each man received his due.

Thus the nature of the compensation given to Mid-Republican soldiers must be

examined in detail. The best way to do this is through an investigation of the

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[104] Appian, *Hisp.* 54. The exact nature of vinegar/sour wine is debated in modern scholarship, but is not of concern here. It is only significant that wheat was not the only foodstuff which needed to be acquired. Cf. e.g. Middleton (1983) 75; Erdkamp (1998) 34.
[105] Gellius, *NA* 16.4.2.
[106] Appian, *Hisp* 54.
[107] Cf. e.g. Brunt (1950) 50-71; Watson (1958) 113-20; Boren (1983) 427-60.

deductions made from military pay. Military pay was originally intended to compensate citizens against the cost of going on campaign.[108] Deductions were made against this for state provided items; the individual citizen did not pay for them and thus did not require compensation for them. Once again, Polybius provides the best evidence.

> Τοῖς δὲ Ῥωμαίοις τοῦ τε σίτου καὶ τῆς ἐσθῆτος, κἄν τινος ὅπλου προσδεηθῶσι, πάντων τούτων ὁ ταμίας τὴν τεταγμένην τιμὴν ἐκ τῶν ὀψωνίων ὑπολογίζεται (Polybius 6.39.15)

> But for the Romans the quaestor takes account of the arranged price of both food and clothes from the salary, and any additional arms if they are required.

Nicolet argued that this passage demonstrates that military pay was remarkably fixed; food and arms would have a relatively stable price, thus as the needs of soldiers were steady the deductions would be easy to estimate.[109] However, this interpretation is at best overly simple and at worst completely false. While Polybius gives the items for which costs could be deducted, he does not indicate the relative costs of these items or whether there was a fixed price for each. Watson suggested that the reason that Polybius does not give a total figure of the deductions is because the same deductions were not made for each man, particularly with regard to clothing and arms.[110] It is necessary to examine each item, food, clothing and arms, separately in order to build a larger picture of the work of the quaestor with regard to pay.

As it has already been discussed in some detail, food is a good place to start. However, before continuing, a problem of translation must be highlighted. Polybius

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[108] Livy 4.59.11; Brunt (1950) 50; Marchetti (1975) 246; Boren (1983) 430.
[109] Nicolet (2000) 81-2.
[110] Watson (1958) 118.

uses the term σῖτος. Liddell and Scott list the definitions as grain, food made from grain and food in a broader sense.[111] It is not entirely clear how the word should be translated on this occasion. It is probable that the original sense was similar to that of the Latin *frumentum*, grain, but as will be seen need not be limited to it. It may well be that the ambiguity of meaning aids understanding in what legionaries were to have deducted from their pay. Grain provided the main foodstuff to be accounted for, but was not the only one. As will be seen below, Polybius could and did refer specifically to wheat and barley if necessary, supporting the hypothesis that σῖτος here is not limited to grain. The double meaning of σῖτος as both grain and food can be understood from Polybius' description.

On the face of it, food cost should have been the easiest of the three elements of deduction to calculate. As Polybius implies, the deduction for food was made for each individual at a set price. Each infantry man was provided with four *modii* of grain per month, and would have paid this cost accordingly. However, the passage does not necessarily mean that this fixed price remained the same year to year. Rome may have received this grain as a tithe from Sicily or Sardinia (thus free of charge) but the contracts for its transport still had to be let.[112] Depending on the distance to be covered and the competition amongst contractors in any given year, the cost of this transportation likely varied. As military pay was originally intended as financial compensation, it follows that the state made these deductions at cost price, effectively reimbursing itself. Polybius is not specific enough to provide evidence to support this, but the use of 'the arranged price' rather than just 'the

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[111] LSJ sv. σῖτος.
[112] Erdkamp (1998) 86 with Cicero, *Verr.* 2.3.163; contra Rickman (1980) 105-107. With four *modii* a month per man, a tithe of three million *modii* would support 13.89 legions of 4500 men or 10.45 legions of 6000 men. The unusual contract situation of 215 occurred precisely because the state was unable to pay up front, Livy 23.48.10-49.3.

price' suggests that the price did vary, which again points to cost price deductions as the norm.[113] As such, it seems that while the value of grain deductions may have been fixed in a single year, it was not over the longer term.

The variable price points to other factors to be taken into account. While soldiers probably covered the grain's shipment cost, it does not follow that they also received deductions for food foraged on campaign. Fruit, vegetables and meat appropriated from the local area had no cost either for the individual citizen or the state. The quaestor may have organised the distribution, but it is doubtful whether a deduction would have been made against the accounts of legionaries. The other side of this conclusion is that if produce was purchased locally, this was a cost to the state. On the hypothesis proposed here, the men would also have this cost deducted from their pay. Such an interpretation is not beyond the scope of Polybius' description of deductions. When discussing rations elsewhere wheat is specifically referred to, suggesting that if Polybius had meant wheat rather than food in this instance he would have used the term.[114] Arguably this is pushing the semantic argument too far, but as a military man (see II:i) Polybius would have been familiar with the military diet. His statement emphasises the 'arranged' price because the nature of food supply and its cost was dictated by the unique circumstances of each campaign. Deductions for food were not limited to grain in all circumstances. The quaestor was required to deduct from pay the price appropriate to the army's circumstances, not a set amount.

It is also worth considering whether grain acquired on campaign resulted in a deduction. This is a more complicated issue. It has been highlighted above that

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[113] Cf. Marchetti (1975) 247.
[114] Polybius 6.39.13 – πυρός.

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legions usually employed several methods of supply over a campaign to suit immediate tactical requirements. (Cato's entirely forage-based Spanish campaign cannot be considered an ordinary example.) Each man received his four *modii* a month, but it did not always come from the same source. It is unlikely foraged grain and resupply grain were kept separate. The aim of this thesis is to demonstrate that the Mid-Republican army was organised using a relatively complex bureaucracy, but it is probably going too far to suggest that when mixed grain sources were used the cost to the individual was diluted appropriately. Moreover, it is unlikely that foraged grain constituted the major source in the majority of campaigns. The need to keep the army moving from region to region and the unpredictability of forage made magazine supply a much more reliable and necessary option.[115]

On balance, it seems likely that in each year there was a set cost for the deduction of wheat based largely on a calculation of transportation expenditure. This was most likely calculated by the magistrate who let the contracts and passed on to the quaestors who accompanied the legions. In addition, any state expenditure, centrally or locally, on salt, oil, wine, vinegar/sour wine, meat, fruit and vegetables would be deducted from the men in the legions to which they applied. Thus, even in the same year each army would have different food costs based on their circumstances. The quaestor's deductions would be unique to each army, and necessarily calculated in the field. Polybius was unable to give a set figure for food deductions because the cost fluctuated.

Polybius' second deduction is for clothing. There are few instances of clothing being supplied to the legions outside Polybius' discussion, but there is no reason to

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[115] Cf. Erdkamp (1998) 50.

question Polybius' accuracy. In 123 C. Gracchus' *lex militaris* included making the supply of clothing free for the legions.[116] The law implies that the cost of clothing had previously been deducted from pay. On the other hand, the *lex militaris* also included a provision requiring that no one under the age of 17 be levied. Polybius' description of the levy and the special measures taken during the Hannibalic War for younger soldiers demonstrate that Gracchus' provision reinforced the lower age limit rather than introduced it.[117] Including the age limit in the law most likely reflected the recruitment problems of the second half of the second century. If so, a deduction for clothing should be accepted for the period under discussion.

The one detailed instance of clothing supply in Livy is of assistance in understanding the quaestor's role and the use of records in the legion. In 169 the consul Q. Marcius wrote to the senate requesting 6000 togas and 30,000 tunics be sent to him in Macedonia.[118] The army had been abroad for at least a year, suggesting that replacements were needed. It seems likely that the men originally left in their own clothes. That Livy found this logistical event noteworthy may indicate that it was unusual for one of several reasons. Firstly, that it was unusual for the legions to require new clothing. However, by 169 long campaigns of several years had become the norm. Wear and tear on clothing over such a period, particularly but not only from damage in battle, suggests that replacements were a necessary and regular feature of warfare. It is unlikely that Livy was unaware of this. Secondly, that it was

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[116] Plutarch, *C. Gracch* 5.1. Gabba (1976) 7 argued that this was a consequence of a lowered property qualification. It is more likely that it was part of measures to win the people's support. In effect, the measure increased military pay as deductions were reduced. See III n. 1 on the property qualification.
[117] Polybius 6.19f; Livy 22.57.9, 25.5.6-9.
[118] Livy 44.16.1-4. Food was not required as he had arranged a local supplier, but the senate needed to provide payment for it. The praetor was ordered to organise this shipment. It need not be surprising that this was not done by a quaestor in Rome. The other occasion on which clothing is mentioned is a passing reference to the senate's intention to review a request from L. Marcius in 211. There is no indication whether the senate was to organise or only pay for the required items, Livy 26.2.4.

unusual for the state to have to send clothes out to the provinces. In his letter, Marcius makes the point of saying that grain had been acquired locally, but that clothing and cavalry horses needed to be provided by Rome. This may imply that in the usual course of things, clothing could be obtained more locally. On balance, this seems to be the most likely explanation for Livy's interest, but it is a third factor, the order's size, which is of greatest interest for this discussion.

The size of the order, 6000 togas and 30,000 tunics, suggests that Marcius was attempting to clothe his entire force, including the allied contribution and the unknown number of other men involved in the successful running of the legion. Marcius had in Macedon two legions of six thousand foot and three hundred horse, along with an equal number of allies.[119] This gives a total of 25,200 men; 30,000 tunics probably allowed for the support staff. This indicates that Marcius knew the approximate size of his force. Moreover, a deduction could easily be made from each man as the cost would be the same across the board (expect for those who also received a toga). However, Livy's interest in the letter suggests something more significant. As with the second point, it suggests that clothes were usually obtained on an *ad hoc* basis as required. It is implausible that every legionary's clothes fell to tatters at the same time. It may have been easier for the state to apply the same cost to everyone by organising or paying for purchase in bulk, but Livy's interest suggests that this was not usual. Rather, deductions would still be made, but marked separately for each man as he required a new tunic. As in the case of deductions for food, it appears that Polybius deliberately emphasised the 'arranged' price as unique

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[119] Livy 43.12.3-5.

to each situation; the need for new clothing was dependent on the length and nature of the campaign, and the fortunes of the individual legionary.

The case of arms is the third element of pay to be examined, and the most controversial. Polybius' description is often seen as evidence that in the mid-second century the state was regularly providing arms and armour for all its soldiers.[120] Gabba and Marchetti took a more staggered approach. Gabba argued that the passage demonstrates that in theory arms should be obtained by the individual, but in practice the state provided them.[121] Marchetti sees the passage as demonstrating that while in the Second Punic War men enrolled with their own arms, by the second century this had changed to state provision.[122] Along with Brunt, he saw this as a result of a lowered property qualification.[123] However, this is an attempt to have the cake and eat it too. Book six of Polybius' *Histories* refers to both Polybius' own time and to 216 (see II:i). There had been some changes to Roman warfare during this period, but not in the principles and organisation on which it was based. Therefore Polybius' property qualification applies to both points in time. Another explanation of Polybius' statement is required.

As Rich points out, the passage refers to a cost for replacement arms, not for the initial provision of arms. Rich bases his conclusion that in the 160s arms were provided by the state on Polybius' earlier statement that the first reassembly following the *dilectus* was made unarmed.[124] This passage has already been discussed (II:v), but it is worth reiterating the conclusions here. Book six applies equally to the late third and mid-second century. The first reassembly of the legion

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[120] Brunt (1971) 405; Marchetti (1975) 247; Gabba (1976) 10; Rich (1983) 287.
[121] Gabba (1976) 10.
[122] Marchetti (1975) 247.
[123] Brunt (1971) 405.
[124] Rich (1983) 287 n.1; Polybius 6.21.6-7.

took place unarmed because it was the occasion on which the men were split into the lines of *velites*, *hastati*, *principes* and *triarii*. Until this took place, the men did not know what arms they would need and thus could not arm themselves appropriately. Indeed, it is not until chapter 26, five chapters later, that the legion is ordered to arm. Chapter 21 does not provide evidence of regular state arming, and even chapter 26 is at best ambiguous over where the arms will be sourced.

To return to the quoted passage, it is necessary to examine the grammar in order to understand the nuance of Polybius' meaning. The comment on arms is in the subjunctive preceded by κἀν, indicating that unlike food and clothes the cost of arms was only taken if necessary. The use of the subjunctive rather than the indicative as seen with food and clothes suggests that arms were a less frequent or expected expense. The implication is that men were expected to arm themselves. Polybius' choice of vocabulary further supports this conclusion. The use of προσδέομαι ('I require besides') rather than just δέομαι ('I require') emphasises this sense of condition. This again implies that any cost for arms would be for replacement arms. As the organisation of the battle line was in large part based on wealth, with equipment becoming more expensive in the more senior lines, this should not be a surprising conclusion.[125] It does not preclude the state from providing equipment initially, but does suggest that this was not the norm. Rather, deductions for arms were made if the state had to provide replacements following loss or irreparable damage in battle. The commander was duty bound to turn over captured wealth to the quaestor.[126] As the quaestor commanded the baggage train, it is likely that other spoils also ended up under his authority. Operating in unfamiliar territory and under

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[125] Polybius 6.21.7-23.9.
[126] Polybius 10.19.1; Sallust, *Iug.* 29.5-6.

oath to hand over looted spoils to the commander,[127] the only way for a legionary to replace equipment would be through the quaestor.

It is at this point that the importance of record keeping and its likely detail becomes clearer. When an individual needed to replace, for example, a shield, he could do so by visiting the quaestor. The value of this item would need to be marked down by the quaestor against the name of this soldier as it seems was usually done with clothing. Aulus Gellius reveals that a single spear was the only equipment item which could be kept if found by a soldier.[128] This was probably the item which most often needed replacing, and may help further explain why Polybius considered the deductions for equipment infrequent. Nonetheless, when a legionary was paid, not only the universal deductions for food but also the individual deductions for clothing and replacement equipment were taken from the total he was to receive. For the system to work equitably a record of each individual's account was necessary. Polybius' description of deductions from pay reveals that it was necessary for a detailed list of individual members of the legion to be kept on campaign in order for pay to be properly calculated.

The final variable to consider is the pay scale itself. Polybius breaks down military pay into three categories: the lowest for an infantryman, twice that for a centurion and higher still for a cavalryman.[129] This suggests that at the very least a quaestor would require a list of men broken into these categories, or marked on a legion list, in order to ensure that individuals were paid correctly. However, Polybius' breakdown does not give an indication of what other ranks were paid. For example,

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[127] Gellius, *NA* 16.4.2.
[128] Gellius, *NA* 16.4.2.
[129] Polybius 6.39.12.

was an *optio* thus paid the same as an ordinary legionary and a military tribune the same as a centurion? It is worth noting that Polybius does not use the term centurion here, instead referring to ταξίαρχοι. This is a term which means 'unit commanders' and could mean centurions. However, Polybius explicitly uses κεντυρίωναι alongside ταξίαρχοι earlier in book six, suggesting that while centurions were ταξίαρχοι, ταξίαρχοι were not necessarily centurions.[130] This is complicated by the use of καὶ which could mean either 'and' or 'or'. ταξίαρχοι is usually translated to mean 'centurions' throughout Polybius' description of Rome's military system, but this loses the nuance.[131] Rather, it seems that Polybius is attributing the medium rate of pay to unit commanders and specifically not just to centurions. It cannot be stated with certainty exactly who Polybius is envisaging being paid at this rate, but a reasonable assumption might be all those classed as 'officers', that is anyone of the rank of *optio* and above.[132]

On the other hand, several modern scholars have attempted to recreate ranks both above and below centurion with their own discrete pay grades. Using evidence of the empire, Speidel posited four pay grades: rank and file, *centurio legionis*, *primus ordo* and *primus pilus*.[133] Likewise, Breeze suggested three grades below centurion: basic *miles*/ technicians and specialists, junior staff officers and senior staff officers (including the *optio* and standard bearer).[134] Although developed for the empire, both reconstructions are reminiscent of the ranks that appear to be missing from Polybius. Brunt believed that there were increasing rates of pay for ranks above

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[130] Polybius 6.24.4.
[131] E.g. Paton, Walbank & Habicht (2011) 359.
[132] This explanation leaves the question of whether cavalry officers received a fourth higher rate of pay. However, as cavalry pay was higher to reflect the cost of bringing horses and attendants on campaign and cavalry service itself was restricted to Rome's wealthiest, such differentiation may not have been required.
[133] Speidel (1992) 100-2.
[134] Breeze (1971) 134.

centurion in the Republic, despite admitting that there is no evidence for this.[135]

However, while an absence of evidence is not evidence of absence, it is safer to base conclusions on the existing evidence rather than appealing ideas. As such, with the above interpretation of Polybius' middle category there is no reason to believe that these six pay grades existed in the Middle Republic. Whether they developed during the Principate is outside the scope of this work.

In this way, Polybius' description covers all those in the legion with only three pay ratings. Besides fitting neatly into the Roman currency system,[136] this rating system would have simplified the work of the quaestor. Pay calculations had a simple basis to allow easier computation of the total. Moreover, military pay was designed as compensation for services rendered to the state.[137] There was no need for many graduated rates of pay in a system where wealth and experience designated an individual's place and pay was designed to cover basic campaign expenses. The heavy infantry may have had greater expenses, particularly in terms of armour, but they were allotted that place precisely because they were better able to bear that additional cost.[138] Polybius was describing a system of pay based on a mentality almost entirely alien to that on which Speidel and Breeze's professional army of the Principate based its pay grades.

However, while the complexities to be dealt with by the quaestor reinforce the notion of pay as fair compensation and not a reward, the system nonetheless indicates that Rome was beginning to move away from this strict view. The ταξίαρχος pay grade is not necessary with a mentality only concerned with compensation. The ταξίαρχοι

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[135] Brunt (1950) 68.

[136] Different interpretations of Polybius' figures have been given, but the overriding tendency is to link his figures to whole numbers and coin values, e.g. Watson (1958) 114-6; Boren (1983) 439ff.

[137] Livy 4.59.11; Brunt (1950) 50; Marchetti (1975) 246; Boren (1983) 430.

[138] Polybius 6.21.7-23.9.

as individuals required the same compensation as ordinary soldiers. Nonetheless, they were paid double. The obvious reason for this is that their seniority brought with it greater responsibilities and a greater risk of death. Polybius states that each maniple had two leaders so that there would always be a commander in case one was killed or fled.[139] It is emphasised that this was to cover all possibilities, but does raise some interesting points. Firstly, it highlights the importance of unit leaders once the battle was underway. They are painted as the pins holding the maniple together. Secondly, concern about their death demonstrates that this was a risk. As the centurions operated at the front of their unit, this risk was greater than for an ordinary soldier, who is unlikely to have always been positioned there.[140] Thus in essence it appears that the higher pay for ταξίαρχοι was a form of danger money. Polybius' pay scale reveals that in the Middle Republic the mentality behind military pay was beginning to move towards reward from compensation. That there was only one senior pay grade demonstrates that Rome was far from reaching this, but was nonetheless starting the process that would be sped by the development of the professional army.

Quaestors in the field were faced with three basic pay levels from which deductions could be made. The variable deductions, particularly for clothing and arms, suggest that few men would ever be paid exactly the same amount. The fortunes of war, such as the loss or damage of equipment, coupled with the strategic, geographic and climatic influences, meant that while for the state expenses from campaigns may have remained relatively stable year to year, for individuals 'take home' pay would have varied more greatly. Detailed records were necessary to keep track of these

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[139] Polybius 6.24.7.
[140] Implied by Polybius 6.24.7-9.

differences. Even if there was a steady state fixed price for items, which it has been argued here was not the case, the irregularity and non-universal need for new clothing and equipment would have required an individual record for each man in the legion. Nonetheless, the system was much less complicated than if the quaestor had had to cope with six different pay rates, especially if promotions were made in the field. For example, if an *optio* was promoted to the rank of centurion he would not receive an increase in pay for which the quaestor needed to account. The individual remained within the level of the ταξίαρχοι. It was only if an ordinary soldier was promoted into the ταξίαρχοι that a change needed to be noted. This is not to say that a promotion would not be recorded on legion list, but simply that in the majority of cases it did not affect the work of the quaestor as paymaster.

iii: Reinforcements and reviews

It has been assumed in the prior sections that Roman commanders knew the size of their command before a battle. While this is to be expected in the first engagement following the levy, it is not such a simple assumption after this, as not only battle deaths but injury and disease took their toll on legion numbers. This section will address the issue of counting the living. The evidence concerning the living on campaign sheds further light on the administrative complexity of the legions. In particular, this concerns the sending of *supplementa* to reinforce legions weakened by deaths and the dismissal of men who had earned *emerita stipendia*. Finally, to bring the chapter full circle, the *lustrum* of troops on campaign will be examined to emphasise the importance that record keeping had in the successful operation of the legions.

The issues of *supplementa* and dismissal for *emerita stipendia* are often entwined in the sources. As Walsh points out, supplementary troops were enrolled at least in part to replace casualties and men ready for discharge.[141] It is worth examining these two groups, casualties and men eligible for discharge, separately at first. First, casualties. It has been highlighted that commanders had a strong grasp of their legions' size. This enabled them to send a report to the senate detailing the number of men required as a *supplementum* to cover men lost on campaign (IV:i). This could have been an explicit figure of the number of men required; however, there is no evidence of this type of request. Alternatively, the request could have been implicit in the casualty figures themselves. The senate knew the number lost and thus how many were required to restore the legion to full strength. It may have required collating information from several letters, but if these were readily available in the senatorial archive it would not have been an overly difficult task.

Second, men eligible for discharge. *Supplementa* also allowed for the discharge of men who had served their term, indicating a more sophisticated form of record-keeping within the legion.[142] It is possible to argue that in cases like second-century Spain, where it appears that the longest continuous service term was ideally six years (see II:iii), this was achieved simply by knowing in which year men had been sent to Spain, and in effect would require the discharge of entire cohorts or maniples rather than individuals. However, even this more simple system, based on units rather than individuals, would require some kind of record-keeping in order to function efficiently and prevent mutinies over long service.[143] Moreover, while the legions themselves remained on campaign for this long, this does not necessarily reflect all

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[141] Walsh (1994) 128.
[142] E.g. Livy 9.24.1, 39.38.10-11, 40.36.7, 43.12.5-6, 44.21.5-8.
[143] Cf. Messer (1920).

individuals. The Spanish legions received *supplementa*.[144] This means that not all

the men had served for the same length of time. Unless all the new soldiers were

placed in a separate unit, it was not possible to discharge units wholesale to remove

those with *emerita stipendia*. In reality, it appears that in Spain the legions were

retired after six years with all members dismissed, avoiding this problem.

Nonetheless, Spain appears to be unusual in this respect; certainly the piecemeal

dismissal of veterans is much more prevalent in the sources.[145] This suggests that

the records carried with the legion included the number of years served by each man,

and that it was updated as years passed on campaign.

Thus the ability to both replace casualties and dismiss those who had served six

years with *supplementa* provides strong evidence for relatively detailed record

keeping on campaign. However, *supplementa* were for the most part enrolled in

Rome on the senate's instruction and dispatched to the commander. This raises the

question of how the numbers to be enrolled were decided upon. Whether this

coordination was organised through the commander's dispatches or by parallel

records is not entirely clear from the sources. Nonetheless, with the added

complication of casualty numbers to contend with, particularly if commanders did

not always send a full list of the names of the dead, it seems likely that this was

achieved through letters. This supposition is supported by Livy's description of

much *supplementa* recruitment, where commanders, or consuls acting for them, are

instructed to recruit whatever number they deem suitable.[146] As suggested above,

the recruiter could have consulted the copies of letters kept in the senatorial record to

calculate the required reinforcements. The senatorial decree on recruitment

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[144] Livy 37.50.11, 34.56.8; see II:iii.
[145] Livy 37.50.11, 34.56.8; see II:iii.
[146] Livy 25.3.4, 26.1.12, 27.8.11, 27.22.6, 33.43.6.

effectively devolved the decision on recruitment of *supplementa* to those who had, or could gather, a clearer idea of the requirements.

However, this does not account for the dismissal of men with *emerita stipendia*. It appears that men were dismissed on the basis of *emerita stipendia* only once the surplus was calculated following replacements for casualties.[147] This has several implications. The lack of specificity may indicate that the recruiters were aware that, despite efforts to be accurate, casualty figures could be wrong. The only casualty figures transmitted in the sources are for set piece battles (see above IV:i). It is unclear whether these figures account only for those who died in the battle itself, or also of wounds afterwards. Further, there is no evidence that notifications of deaths from illness and disease were sent to the senate (although the legion itself needed a record). The lack of evidence does not demonstrate that this did not occur; as a normal part of ancient life and armies it was probably not of interest to ancient writers. Nonetheless, it suggests that even if the casualty figures from battles were known, other losses were likely not recorded. As such, the magistrate responsible was required to use his own judgment to come to a total that would cover the legion's losses. This may well explain why *supplementa* always occur as a round number.[148] Thus, while more complex than often imagined, the distances and uncertainties involved did impose a limit on the functioning of military administration. Perfect parallel record-keeping between the legions in the field and the records in Rome did not occur.

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[147] Livy 39.38.10-11, 40.36.7, 43.12.5-6, 44.21.5-8 (replacing invalids).
[148] E.g. Polybius 18.20; Livy 32.8.2 (3000 foot, 300 horse), 32.28.10 (6000 foot, 300 horse), 35.20.4 (4000 foot, 150 horse).

The secondary place of veteran dismissal is further emphasised by over-generous reinforcements. On one occasion, not only the *emerita stipendia* but those who had given good service, '*forti opera*' had to be discharged to bring the legion down to size.[149] In 169 and 168, the legions were left oversized once the veterans had been dismissed.[150] Together, these instances suggested that the *supplementa* were not raised in the knowledge of (or with great concern for) the exact number of *emerita stipendia* each year. It appears that the number dismissed varied depending on how accurately the recruiting magistrate estimated the legion's total losses. However, significantly here, they indicate that legion records allowed commanders to identify those who had served their term. Moreover, the note on discharge for brave service also suggests that some kind of conduct record was kept. This indicates that more than just a record of units was kept, although it does not reveal its exact nature.

Why did Rome not calculate the number with *emerita stipendia* more accurately? It is argued here that the census contained a declaration of military service and that the legion list composed at the *dilectus* maintained this information. A copy of this legion list was kept in Rome (II:v). Consequently, the magistrate in charge of recruiting a *supplementum* had access to the service of each man in the legion. Even if the list in Rome was not updated with extra years of service once the legion departed, it would be a simple matter to calculate the current term. Why this apparently did not happen is unclear, but a hypothesis may be proposed. The method of estimating casualties appears to have always led to an overestimate, probably quite deliberately. Thus it was expected that there would be an excess with which men with *emerita stipendia* could be dismissed. It also allowed for any additional

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[149] Livy 40.36.11. Whether or not this was a collective reward makes little difference here. Either way it indicates some kind of service record.
[150] Livy 43.12.3-4, 44.21.5-8.

casualties since the previous dispatch. This indicates that keeping the legion at strength was more important than maintaining a service limit of six years. Polybius' absolute maximum service term of twenty years supports this hypothesis.[151] Men could be kept in the field for longer than six years legally, allowing the senate to focus on replacing casualties. Moreover, this focus allowed for veteran dismissal, if more sporadically than was ideal for the men themselves. The overall lack of mutinies over this issue suggests that the system was able to function without the need to consult the legion lists every time reinforcements were required. Rome's bureaucracy was complex only to the extent that it was required.

There is further evidence to suggest that commanders had more detail about their men's service terms than just when their cohort or maniple had been formed. Occasionally, following large losses, forces were amalgamated. In the case of the Spanish legions following the deaths of Publius and Gnaeus Scipio, this was a wholesale amalgamation of the two armies into a single force.[152] Even with the garrisons recalled and more than a legion's worth of Roman and allied reinforcement with Gaius Nero, another 10,000 foot and 1000 horse were considered necessary to restore the force to strength.[153] In this case, knowing when cohorts had been formed was not enough, as joining the forces resulted in the formation of new units, with no guarantee that all the unit's men started their terms at the same time. As this took place during the Hannibalic War, when, as has been seen, the situation was not an ordinary one, the discharge time of these men is unclear, and in the case of those

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[151] Polybius 6.19.3.
[152] Livy 25.37.4. Another example is the creation of legions from the free survivors of Cannae. Scipio's ability to select the most experienced of these veterans from Sicily before heading to Africa further suggests some kind of service record held with the legions.
[153] Livy 26.17-19.

who accompanied Scipio to Africa not for at least ten years.[154] Nonetheless, it demonstrates that in order to regularly dismiss those who had gained *emerita stipendia* commanders needed more information than simply when each cohort was enlisted.

This provides an excellent point to discuss the chapter's final element. It is the contention here that *lustra* were regularly performed in the field by incoming commanders to take stock of their troops, enabling records to be updated and any mistakes corrected. Scipio Africanus' arrival in Spain to command the combined remnants should thus be an ideal example of this process. [155] Livy does not use the term *lustrum* in his description, and the other source is Greek, but the problem is surmountable. The *lustrum* originated as a purification rite performed by the censors.[156] As the census began as a military review, the purification cleansed the army as much as the citizen body. Thus, a *lustrum* of the army in array in the field should not be surprising, especially as the centuries arrayed outside the *pomerium* on the *campus Martius* at the census' beginning were an army in the field. This is supported by examples of *lustra* in military contexts.[157] Thus the case of Scipio appears to fit into this context despite the lack of *lustrum*'s explicit use.

However, the existence of *lustra* in the field does not demonstrate an implicit administrative connection. *Lustra* are also found in contexts with no bureaucratic link. In an attempt to define Mars' sphere of influence, Rosivach argues that Mars was predominantly associated with lustration. The key ceremonies containing this

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[154] Livy 31.49.5, cf. II:iii. All veterans were withdrawn from Spain in 205, but it does not follow that they were discharged, especially as Livy uses *deducere* rather than *dimittere*. Livy 29.1.21.
[155] Livy 26.20.4; Appian, *Hisp.* 4.19. Even if Lucius Marcius had already created new records in his reorganisation of the two armies a *lustrum* is still likely, Livy 25.37.4.
[156] Varro, *Ling* 6.86-7.
[157] Livy 23.35.5, 38.12.2; Cicero, *Att.* 5.20.2; Caesar, *BAfr.* 75.

rite occurred in March and October, the traditional beginning and end of the campaign season, in connection with Mars.[158] Objects necessary for war were the recipients of purification. Rosivach connects these with the censorial *lustrum* on the *campus Martius*. His overall argument is not strong, but the evidence nonetheless appears to indicate a link between Mars, war and purification. Cato the Elder also mentions *lustra* in an agricultural context.[159] These examples suggest that *lustra* were religious purification rites with no necessary administrative function, and that the censorial *lustrum* was unusual in this feature.

Despite this, a bureaucratic element to military *lustra* need not be ruled out. Otto argued that *lustrum condere* ('to conduct the *lustrum*'), the formula always found in connection to the census, should be interpreted as the storage of the review documents (i.e. the census documents) in the *aerarium* (treasury).[160] (The storage site of documents is a separate issue and will be addressed in V:iii.) Ogilvie dismissed this interpretation as largely overlooking the religious element of the ceremony and 'playing fast and loose with the meaning of -(s)-tro-m'. However, the assumption that Otto's interpretation overlooks the religious element is unfounded. The use of *lustrum* in other contexts reveals that it had a strong religious connotation. *Lustrum condere* as Otto imagined it was the demonstration of the separation of Roman and other that the census embodied, sanctified by the act of storing the documents which were its physical embodiment. A broadening of *lustrum*'s meaning to purification as the language developed does not rule out such a specific original meaning in the context of the census.[161] As lustration on campaign

[158] Rosivach (1983) 512.
[159] Cato, *De Agr.* 141.
[160] Otto (1916) 17-40.
[161] Cf. Ogilvie (1961) 34-5; *OLD* s.v. *lustro*; cf. Hamp (1986) 362.

continued the original sense of a military review, it is not implausible that these lustrations had an administrative function alongside the religious.

However, as Ogilvie points out, the form of *lustrum* used for the census, *lustrum condere*, is unique to it, suggesting that a *lustrum* outside this context did not carry the same connotations.[162] Nevertheless, this need not be an obstacle to interpreting military *lustra* as administrative in-line with the census. The language of lustration may hold the answer. If Otto's interpretation of *lustrum condere* is correct, it would have been incorrect to use the phrase in a context on campaign away from Rome. The sense of procession and ritual deposit carried by *condere* was inappropriate in the field where this deposit in the appropriate sanctified location was impossible. *Lustra* on campaign could not be considered *lustrum condere* precisely because being on campaign prevented the deposit of documents. It does not rule out the presence of the documents themselves.

It is at this point that Livy's failure to use the term *lustrum* when narrating Scipio's actions upon his arrival in Spain becomes a potential benefit. Livy does not refer to a review at all, instead referring to Scipio 'having done all there was to be done'.[163] The implication is that Livy expected his reader to know what this was. It may have involved a *lustrum*, particularly if it was a regular feature of assuming command, but it cannot be stated with certainty. Appian states that Scipio 'παραλαβών τε τὴν ἐκεῖ στρατιάν καὶ οὓς ἦγεν ἐς ἐν συναγαγών ἐκάθηρε'.[164] This translates as 'taking the forces already there and joining them in one body with those he brought [Scipio] performed a cleansing'. The key word is 'ἐκάθηρε'. Richardson translates this as 'he

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[162] Ogilvie (1965) 31.
[163] Livy 26.20.4 – *Scipio omnibus quae adeunda agendaque erant.*
[164] Appian, *Hisp* 4.19.

performed a ritual cleansing'.[165] Again this does not indicate administration, but the whole phrase must be taken into account. Appian explicitly links this cleansing with reorganising the legions. Thus, as above, the cleansing itself may have been a religious purification, but it was strongly associated with a practical administrative act.

This sense is supported by Plutarch when he describes the same phenomenon in 169 as 'τὸν εἰωθότα συντελέσας καθαρμὸν αὐτῆς καὶ τῶν πράξεων', 'after the usual purification and review of them'.[166] Like Appian, he associates the cleansing with an administrative task. Unlike Appian, on the occasion described by Plutarch the legions were not undergoing a reorganisation but nonetheless required a review at the arrival of the new commander. Moreover, Plutarch presents the event as an ordinary procedure, suggesting that it was usually performed by many incoming generals. This joint emphasis on purification and review from Appian and Plutarch suggests that both actions were necessary for a new commander.

Appian and Plutarch do not use the same wording to describe the purification and review. This suggests that there was not a standard Greek phrase to describe the process, indicating instead that both authors were translating a Latin term for which Greek has no equivalent. The obvious Latin equivalent for their descriptions is *lustrum*. As both authors demonstrate, Greek has a term for purification, καθαίρω, but this alone was not enough to describe the process. This further indicates that *lustrum* has a larger meaning than just purification, encompassing in a military context an association with reviews and documentation. The sense of routine

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[165] Richardson (2000) 29; cf. LSJ sv. Καθαίρω.
[166] Plutarch, *Aem.* 36.3. πρᾶξις is a strange choice of noun, but there is not a manuscript problem and review is the neatest translation here.

implied by all three authors suggests that the review was a normal feature of command. Thus it appears that an up-to-date record was of as much practical importance to commanders as the religious element of the *lustrum*.

To conclude, through the examination of records of the living it is possible to see bureaucracy working within the legions. The ability to dismiss men on the basis of *emerita stipendia* demonstrates that commanders in the field had some type of record of the service length of the men under their command. Coupled with the occasional reshuffle within legions to form new full units and the ability to dismiss men based on good conduct, this indicates that these records were not simply on a cohortal or manipular level, but included, to some degree, service records of individual men. A new commander's military *lustrum* performed on arrival in his province was more reminiscent of the census' original form than what it had become by the Middle Republic. It provided an ideal opportunity to take full stock of the legion, dismissing surplus veterans and ensuring that records were as accurate as possible. Without these records, the commander in the field had less information about his forces' strength and composition, opening himself to possible mutiny if he was unable to deal with issues such as *emerita stipendia*. Military bureaucracy was just as necessary within the legion as at Rome.

iv: Tracking manpower on campaign

Overall, it can be seen that it was necessary for commanders to keep detailed records of the men under their command while in the field. This achieved several goals. Firstly, it was key for the successful operation of the legion. From a tactical perspective, knowing the true strength of the legion allowed a commander to commit his army more appropriately. It served no purpose to continue to assume that a

legion contained 5000 men if it was known that losses had since been sustained. The frequent inclusion of casualty figures in dispatches to the senate reveal that this was an active concern of commanders. Further, understanding the legion's logistical requirements was directly linked to knowing the number to be supplied. This prevented over- or undersupply, allowing the legion to operate as efficiently as possible to reach the commander's strategic aims.

Secondly, detailed records of the legion's members allowed the state to keep track of its obligations, both financial and personal. Military pay still maintained its role as compensation for individual costs accrued while fulfilling an obligation to the state rather than reward for services rendered. Deductions from pay thus needed to be tracked to ensure that each citizen soldier received the correct compensation for his costs without the state being overcharged. Records of previous service carried over from the census list were also included, allowing the dismissal of those who had reached the end of their six year term. In reality, this dismissal was somewhat *ad hoc*, but the process was nonetheless sufficient to keep the legion running smoothly.

It is now possible to understand the process of military administration on campaign and its interaction with the central military documents in Rome. In the field, commanders had a record of the men serving under them. As established in II, this record originated as the list of members drawn up at the *dilectus* including previous service and additional information on rank was added once the legion was organised. Using this list the quaestor was able to calculate the appropriate pay for each individual, marking all the separate deductions to be made from each soldier. Commanders took care to keep the record of their numbers up to date, recording casualties in as much detail as time and injuries allowed. This information was transmitted to the senate in order to keep the legions up to strength. Further, the

detail in the legion's records allowed not only casualties to be replaced, but also those who had achieved their *emerita stipendia*. Undue service requirements could for the most part be avoided with this system, preventing long campaigns keeping men in the field for much longer than the ideal limit of six years. The complexity of the records and the organisation required to keep this bureaucracy and so the army operating smoothly suggests that every effort was made to keep the records as up to date as possible. However, as with any bureaucracy, circumstances of campaign meant that there could be errors. Thus the *lustra* conducted by new generals provided the opportunity not only to ritually purify the army under the auspices of a new commander but also to take stock of the army and update the records in case of any omissions.

All this demonstrates that within the legion and in Rome detailed records were kept and, within reason, every effort was made to keep them as accurate as possible. The previous chapter has demonstrated that Rome, as might be expected, was the military administrative hub. The census declarations and census list served as the central authority for military records. Lists such as the *tabulae iuniorum* could be created from it, with exemptions and service terms noted. From these, at the *dilectus*, legion lists including the same details could be created. A copy of this list was left in Rome and another taken with the legion. These parallel documents enabled a degree of cooperation between the administrative authorities within the legions and at Rome. The legion lists allowed commanders (or their subordinates) to act as devolved satellite bureaucracies, with more exact information from being on the spot. Frequent letters and embassies from the legions to the senate meant that these satellites could communicate not only their tactical position but also administrative

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information. Roman military bureaucracy in the Middle Republic was a complicated and layered affair.

The inexact *supplementa* and possibility of the dead being included in the census by their unknowing *paterfamilias* add to this picture of insufficiency. However, the problems were more a result of distance and travel time for messages than a major administrative failing. Rome endeavoured to keep her records updated, but it was only when a commander and legion were recalled and dismissed that the records could be fully matched up. The new commander's *lustrum* was an opportunity to update records in the field, but this information may not have been available to Rome if the previous commander had left before his successor arrived. As this is a technological limitation rather than a bureaucratic one, it should not take too much away from Rome's achievement in creating a complex and flexible military bureaucracy in order to keep track of their manpower at home and in the field.

In establishing the nature and complexity of the paperwork connected to the Mid-Republican legions, individuals responsible for creating and keeping these documents have been frequently alluded to or their existence assumed. Having established the kind of records which allowed Rome's armies to operate, *tabulae iuniorum* and legion lists with details of individual service, it must be questioned who these bureaucrats were, if indeed such a term can be used. To complete the picture of Mid-Republican military administration, these individuals on campaign and in Rome must be identified, as well as how the documents were stored and accessed.

V: Documents and Archives

It has been established in the preceding chapters that the Roman Republican army was administratively able and operated with a considerable degree of bureaucracy both in the field and in Rome. The question remains, however, of the physical nature and storage of the documents themselves. This chapter aims to examine the more practical issues of record keeping: the physical materials on which such documents may have been produced; their size; and where such records were stored in Rome. A lack of direct evidence means that the solutions to these problems are largely hypothetical. The conclusions drawn will focus on the balance of probability and plausibility in order to gain a sense of the physical reality of record keeping.

i: Physical form of records

To this point, the content of military records has been discussed in detail, but the physical form which these records took has been overlooked. This section will examine the possible materials used for recording military administration through the discussion of Pliny the Elder's passage concerning writing materials. Bronze, leaf-style tablets, wax tablets and linen rolls will all be discussed in an effort to identify, as far as possible, the materials used to record the documents whose existence has been argued in the preceding chapters.

The most secure evidence is for ancient records on bronze. Ancient authors repeatedly mention them, and archaeological discoveries confirm their existence.[1] That bronze was particularly prevalent is demonstrated by the Emperor Vespasian's actions following the fire of 69 AD on the Capitol. Suetonius reports that Vespasian

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[1] For example the *Tabula Heracleensis* and the *Lex Ursonensis* discussed previously are both bronze inscriptions.

endeavoured to recreate the melted inscriptions, more than 3000 of which were on the Capitol alone.[2] Suetonius' description reveals several important details. Firstly, Vespasian (or Suetonius) believed that these inscriptions dated as far back as the foundation of Rome. The tentative dating of *CIL* 1^2 2833 to the regnal period, suggests that bronze inscriptions could have been produced very early in Rome's history, although the inscription itself is not from Rome. Vespasian's belief does not prove that 800 year old inscriptions existed on the Capitol before the fire, but does demonstrate a first-century AD belief that Rome had maintained an epigraphic habit throughout its existence in order to record important decisions.[3]

Secondly, the documents which Vespasian wished to recreate related in particular to *senatus consulta*, laws, alliances, treaties and special grants of privilege to individuals. The sense conveyed by Suetonius is that the inscriptions provided a potted history of Rome. There is no need to question the types of inscriptions found on the Capitol. Polybius records three treaties between Carthage and Rome dating through the Republic down to the Second Punic War found in a treasury next to the Capitoline temple.[4] Whether or not Polybius personally saw the documents,[5] both Polybius, and by implication his readers, had no problem believing in their existence.

Thirdly, Vespasian conducted a thorough search for other copies of the lost bronze tablets, '*restituenda suscepit undique investigatis exemplaribus*'. Suetonius provides no more detail, so it is unclear where and in what form such copies were imagined to exist. It would be helpful here if they were contained within an archive, but that Vespasian's search was from every place, '*undique*', suggests that there was not a

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[2] Suetonius, *Vesp.* 8.5.
[3] Cf. Cornell (1991); Langslow (2013) 176-8.
[4] Polybius 3.21-26.
[5] Cf. Walbank (1957) 353-4; Scullard (1989) 519; Langslow (2013) 169.

central location at which copies might be found. Nonetheless, the type of location in which bronzes might be kept if not on display can be suggested. (The question of the location of records is dealt with much more thoroughly below, V:iii.) Polybius describes the Carthage-Rome treaties as being in the aediles' treasury, an otherwise unknown building close to the Capitoline temple.[6] He included them in his work explicitly because of others' ignorance about their existence, suggesting that they were within the treasury rather than displayed on the outside.[7] Thus it appears that bronze records not on display could be kept in treasuries (perhaps also serving as primitive archives). It was most likely through these that Vespasian had to search to find copies of the lost bronzes.

However, while some modern scholars have maintained the opposite, bronze appears to have been the normal method for the display, not storage, of state administrative decisions.[8] It is difficult to imagine that the notes of *senatus consulta* presented to the *aerarium* (see below, V:iii) following a senate meeting were routinely inscribed on bronze, despite the fact that the information regarding this process originates from notes on such inscriptions.[9] *Senatus consulta* were legally only advice given to a magistrate upon request without the force of law. While in reality this 'advice' was instrumental to running the Republic, allocating for example the number of legions and their placement, not every piece of advice would need to be inscribed for long term display. Indeed, as legion numbers and stationing were yearly issues this would require the frequent melting down of plaques for re-use. Moreover, decisions of this nature required immediate action; by the time an inscription had been made it would

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[6] Polybius 3.26.
[7] Polybius 3.26.
[8] Frederiksen (1965) 186; Edmondson (1993) 162-3; contra Bucher (1987) 6. Williamson (1987) 162-3 discusses the practical difficulties of consulting bronze tablets, including legibility and style.
[9] *CIL* 1.2².588.3.

effectively be out-of-date. It is not inconceivable that some sort of production line

existed for *senatus consulta* inscriptions, but coupling the above objections with the

introduction only by Julius Caesar of anything reminiscent of minute keeping in

senate meetings suggests that the balance of probability lies against the regular,

organised production of bronze records for such day-to-day activities.[10] Polybius'

treaties were probably unusual in their location, possibly taken down due to Rome's

relations with Carthage following the Second Punic War and thus forgotten by the

general public.

If bronze was only used for publishing more significant documents such as treaties,

it must now be questioned what material was used for more day-to-day

administrative documents. Pliny the Elder discusses writing materials in his *Natural

History.*

> *Prius tamen quam degrediamur ab Aegypto et papyri natura dicetur, cum*
> *chartae usu maxime humanitas vitae constet, certe memoria. et hanc*
> *Alexandri Magni victoria repertam auctor est M. Varro, condita in Aegypto*
> *Alexandria; antea non fuisse chartarum usum. in palmarum foliis primo*
> *scriptitatum, dein quarundam arborum libris, postea publica monumenta*
> *plumbeis voluminibus, mox et privata linteis confici coepta aut ceris:*
> *pugillarium enim usum fuisse etiam ante Troiana tempora invenimus apud*
> *Homerum.* (Pliny, *HN* 13.68-69)

> However, before we move away from Egypt, the nature of papyri shall be
> discussed as well, since the civilisation of life, certainly memory, depends
> greatly on the use of paper. And Marcus Varro reports that this was made
> known by the victory of Alexander the Great and the founding of Alexandria
> in Egypt; before which there was no use of paper. First writing was on the
> leaves of palms, then on strips of certain trees, afterwards for public records
> on lead sheets, and soon they began to use linen or wax for private

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[10] Suetonius, *Iul.* 20.1.

documents; for we find in Homer that little wooden books were used even before the Trojan era.

Pliny's description of writing materials indicates that papyrus was the primary writing material for bureaucracy in his time. The term *charta* appears to be used interchangeably with *papyrus*.[11] The sense of Pliny's passage is that papyrus was the major bureaucratic material for the storage of public documents. The emphasis is on papyrus for durable, long lasting records, as '*certe memoria*' confirms. That Cicero kept master copies of his speeches on papyrus rolls rather than in another form, apparently for longevity, supports this interpretation of Pliny's meaning.[12] However, while papyrus may have been the main material for document storage in the empire, Pliny is clear that it was not the only medium used for writing. Moreover, as shown by the bronze documents, Pliny's description is incomplete and the materials mentioned require further discussion.

When did papyrus become the main administrative material in Rome? Pliny was writing in the late first century AD; it cannot be automatically assumed that his description applies equally to the Middle Republic. Pliny's dating of the use of papyrus by the wider Mediterranean to 332, if trustworthy, provides a possible *terminus post quem*, but does not indicate whether it was taken up in Rome at the same time. Pliny (and Varro) are wrong that papyrus was unknown outside Egypt before Alexander's conquest.[13] In Rome, Ennius mentioned papyrus in his *Annales*, indicating that it was known in the Middle Republic, but he is concerned with the production of literary works not administrative documents.[14] That third-century

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[11] Cf. *OLD* s.v. *charta.*
[12] Cicero, *Q. Fr.* 2.11.4; Nepos, *Atticus* 16.
[13] E.g. Hdt. 5.58.3; Dem. 56.1.
[14] Ennius, *Ann.* 458 Sk. This use further undermines Pliny's strict division between public and private document materials.

Roman poets and historians may have followed the Greek model of producing works on papyrus does not mean that everyday administration also used this material.

Bucher suggests that widespread Roman use of papyrus for administrative functions should be dated to the early first century. He argues that a change in epigraphic forms from a mass of text to columns indicates that engravers began copying text provided in columns as found on papyrus. The lower character density of this column form suggests to Bucher that the change was not due to economic reasons and is thus best explained by a change in writing material to papyrus.[15] This theory is attractive as it indicates a possible increased adoption of papyrus in everyday administration. It does not mean that papyrus was not used before this point, but may suggest that it was not the Middle Republic's primary writing material. On balance, the mention of other materials (wax tablets and bronze inscriptions in particular) coupled with the first-century change in epigraphic forms points to the conclusion that papyrus was not widely used in the Middle Republic.[16]

Pliny provides several alternatives to papyrus which he believed pre-dated its use. Writing *arborum libris* seems to be a reference to leaf-style wooden tablets, examples of which have been discovered at Vindolanda. These tablets were formed of a thin sheet of wood approximately the size of a postcard. This was scored down the centre to create a fold and written on with ink. Once folded the document could be sealed with string. Several leaf tablets could be attached to one another for longer documents.[17] That these leaf tablets are known to have been used for second-century

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[15] Bucher (1987) 15-16. Frederiksen (1965) 188 argued this previously in a more abbreviated form.
[16] The overall lack of pre-first-century references to papyrus may be due to the period's sources, rather than reflect a genuine situation, but the weight of other evidence means it is not necessary to rely on an argument from silence.
[17] See Bowman & Thomas (1983) 37-9 for full description and diagrams.

AD military documents makes it tempting to conclude that they had a similar use in the Middle Republic. In concert with Pliny's assertion that wooden tablets predate papyrus this appears a convincing argument. However, care must be taken. Bucher, following Bowman and Thomas, argues that the leaf tablet was a development in the north-west in parallel with the use of papyrus in the Mediterranean basin.[18] The leaf tablet provided an easy, cheap, disposable writing surface in a place distant from papyrus production.

There are, however, several problems with this argument. Leaf tablets of local wood are attested in the Mediterranean: Herodian describes lime-wood leaf tablets in Rome in Commodus' reign.[19] If Bowman and Thomas are right to conclude that Herodian had added detail to an account originally written by Dio, Herodian's familiarity with the leaf-style tablet indicates that they were not unusual in the southern empire.[20] Likewise, Martial refers directly to this tablet type without concern for the north-western provinces in particular.[21] In the quoted passage Pliny attributes the use of leaf tablets to the Trojan period. The *Iliad* is hardly incontrovertible evidence for the 'Trojan period', but does mention leaf tablets, suggesting that they were familiar to whoever transcribed the poem in c. eighth-century Greece.[22] Further, Bowman and Thomas have convincingly argued that the term *pugillaria* often refers not to wax tablets as is usually believed but specifically to the smaller leaf tablets.[23] This does not demonstrate Republican use of the leaf

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[18] Bucher (1987) 27; Bowman & Thomas (1983) 44.
[19] Herodian 1.17.1.
[20] Bowman & Thomas (1983) 41; Dio 67.15.3.
[21] Martial 14.3.
[22] Homer, *Il.* 6.168f.
[23] Bowman and Thomas (1983) 43. They admit that the evidence is far from conclusive for this, but suggest that at the least the term can mean both.

tablet, but does suggest a widespread use across space and time. The leaf-tablet was not a local invention in second-century AD Britain.

The long use of leaf-style tablets helps to avoid any problems with Pliny's terminology. *Arborum libris* literally translates as 'the bark of trees'. Meyer points out that Nero accepted an alleged contemporary account of the Trojan War due to the material it was written on.[24] The material is *tilia*, lime wood or bark.[25] Pliny states that the same material was used by army scouts to write reports.[26] As seen, lime wood was also used for leaf-style tablets. As well as confirming the long use of this material, the mentions of *tilia* as both lime wood specifically and bark generally indicate a blurring of the meaning. This allows both *tilia* and *arborum libris* to mean leaf-style tablets as well as bark.

Two other objections to Bucher's conclusions must be briefly dealt with. That leaf-style tablets were a relatively cheap material to produce because they could be manufactured locally need not be doubted. This feature would have made them attractive in most areas of the empire. On the other hand, transportation costs from Egypt would have made papyrus that bit more expensive wherever in the empire it was used. There is no evidence that papyrus was considered a particularly cheap or disposable writing material outside Egypt. Therefore, it should be concluded, as Bowman and Thomas lean towards, that leaf-style tablets were a much more common writing material than previously thought. Their fragility means that only specific circumstances allowed them to survive into modern times, and common usage meant that ancient writers, even Pliny the Elder, felt no need to explain them.[27]

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[24] Meyer (2004) 35; Septimus, *Dictys* Pr.
[25] OLD sv. *tilia*.
[26] Pliny, *HN* 16.35.
[27] Bowman & Thomas (1983) 44.

In this vein, it is perhaps best to see Egypt's papyrus documents rather than Vindolanda's leaf tablets as local peculiarities.

On the other hand, the nature of the military records found at Vindolanda and in Egyptian papyri does not point to records destined for immediate disposal.[28] Equipment and absentee lists seem rather to fall into a similar category to the majority of *senatus consulta*; records to be kept for some period but not to be consulted for years to come.[29] This does not mean that the documents were not disposed of; that these military documents were thrown away is why they have survived. Nonetheless, this suggests that leaf-style tablets would have formed a good material for the records which it has been suggested were generated on campaign. Individual service and pay records for an entire legion would have been well served by a small, light, easily-produced writing material. Should additional space be required, another leaf could be easily manufactured and attached. Once crucial elements had been transferred to a military record with the census, their role was completed and they could be disposed of. A material of this type is plausible for administrative use on campaign.

The *tesserae* mentioned by Livy and used to pass orders without using trumpets may be examples of Mid-Republican leaf-style tablets.[30] A more specific definition of the term *tessera* is not provided, but the word in this context suggests a small sheet of wood.[31] Had a wax tablet been meant it is probable that *tabula* would have been used. Harris considers the late fourth century examples to be annalistic

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[28] See I:Introduction.
[29] It is worth noting that *senatus consulta* were supposed to be kept in the *aerarium*, suggesting long term storage was the aim. This need not imply that they were frequently consulted, but does suggest a greater durability than required by an army on campaign.
[30] Livy 7.35.1, 9.32.4, 27.46.1, 28.14.7, 39.30.4
[31] *OLD* s.v. *tessera.* More broadly the term means a flat piece of material, but Polybius (n.34) suggests wood is an appropriate translation here.

interpolation.[32] However, there is no reason to follow him other than a general scepticism of accounts of the fourth century to which the author does not subscribe. Even if Harris is correct, Livy's examples indicate that silent orders were commonly passed on small wooden tablets by the Late Republic. As they were a strategic advantage in the situations Livy narrates it is plausible that *tesserae* were in use by the late third century. Moreover, Polybius' description of watch keeping in camp is reliant on the use of written wooden sheets.[33] On one occasion he refers to this tablet as κάρφος, a term which ordinarily means a small piece of wood or kindling.[34] This indicates that he envisages the tablets as slithers of wood rather than wax tablets.[35] Further, the actions requiring written instructions detailed by Polybius appear to have required more than a few words. Watch-checkers received the order in which they were to check in writing and the role was reserved for the more literate (see VI:ii). This suggests that the sheets were larger than scraps, again suggesting leaf-style tablets. In combination, these passages of Livy and Polybius suggest that leaf-style tablets were commonly used in the field by the late third century at the latest.

With papyrus little used in the Middle Republic and leaf-style tablets used in the field but intended for disposal, an alternative is required for document storage in Rome. The other wooden writing material listed by Pliny is the wax tablet. This is the most well attested writing material.[36] It was formed of a wooden tablet with a recess. Once filled with wax, writing was scratched into it with a stylus. These

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[32] Harris (1989) 167 n.92; Livy 7.35.1, 9.32.4.
[33] Polybius 6.34.7-12, 6.35.5-36.8.
[34] Polybius 6.36.3. LSJ sv. κάρφος.
[35] Polybius (6.34.8) does use the phrase πλατεῖον ἐπιγεγραμμένον, but there is no need to translate this as anything more than 'written-on tablet'. It does not imply the engraving required with wax tablets.
[36] See Meyer (2004) 26 for an extensive list of ancient references.

tablets usually came in pairs which could be sealed together with the writing on the inside.

It will be assumed from now on that when *tabulae* are mentioned by the ancient authors it is most probably a reference to wax tablets. This requires some explanation; *tabulae* were not universally wax tablets. The Twelve Tables, *XII Tabulae*, which contained the first written law of Rome and were formed of twelve bronze plaques displayed in the forum are a prime example. It is precisely this type of document which has led scholars to suggest that the *tabulae* of *senatus consulta* were likewise bronze (see above). However, it has already been demonstrated that this is extremely unlikely to have been the case. Pliny is of no assistance here, as he avoids the term *tabulae* entirely, instead using the common abbreviation *cerae* for wax tablets. As *pugillaria* appears to be the common term for leaf tablets, and it will be seen that *libri* is often used for linen, wax tablets are the best candidate for most mentions of *tabulae*. A certain amount of discretion must be exercised whenever dealing with the term, but unless otherwise indicated *tabulae* will now be interpreted as wax tablets.

As a storage material wax *tabulae* have several advantages over papyrus and leaf-style tablets. The sturdiness of wax tablets made them more durable; Bowman and Thomas suggest this is why more wax than leaf-style tablets survive.[37] They were also waterproof, making them ideal for transporting messages. The ink-written whitewashed boards displayed in the forum were notorious for being alterable.[38] Moreover, the most common ink was water soluble.[39] Messages or documents

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[37] Bowman & Thomas (1983) 44.
[38] Suetonius, *Aug.* 85.2, *Claud.* 16; Athenaeus 9.407b (on the same problem in fifth-century Athens).
[39] Vitruvius, *De Arch.* 7.10.

scratched into wax were much more likely to survive for a longer period and could be trusted to be immune from deliberate or accidental change. The thickness of wax tablets in comparison to leaf tablets increased their durability in a storeroom's potentially damp confines. Vitruvius instructs that when building a house the *bibliotheca* should be placed facing east to take advantage of the extra light and avoid the dampness which could occur in a westward facing room, an unnecessary concern if records were on bronze.[40] As will be seen (V:iii), exactly where military documents were kept is unclear, but the majority of probable locations were enclosed spaces without an eastward outlook. Wax tablets had an advantage both in security and durability over other materials.

Wax tablets do, however, have disadvantages. The very bulkiness which renders them more hardwearing also makes them more difficult to store. Indeed, the main arguments against the use of wax tablets for archival storage focus on the difficulties of using wax tablets for long documents and storing the required quantities.[41] This is particularly true of census records. However, as Bucher himself recognises, the late first-century Ahenobarbus relief is commonly interpreted as depicting the census being recorded using wax tablets.[42] Likewise, the tax records being thrown into the fire on one of the *Anaglypha Trajani* reliefs take the form of wax tablets.[43] These reliefs are particularly noteworthy because they coincide with the period Pliny describes as dominated by the use of papyrus records. However, identifying the material of these records is not so easy. The material held by the writer on the far left of the Ahenobarbus relief takes codex form. Rather than inset, the writing

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[40] Vitruvius, *De Arch.* 6.4.1.
[41] Bucher (1987) 25, 54 n.75.
[42] N° d'entrée LL 399 (n° usuel Ma 975), Collection & Louvre Palace. Pictured at Torelli (1982) I.4a.
[43] Housed in the Senate House, Rome. Pictured at Torelli (1982) IV.10.

surface appears to be raised from the surround. The thickness of the books also seems greater than might be imagined even for the bulky wax tablets.[44] However, if it is a codex pictured, it is a remarkably early example. [45] Further, the census records of the Republic are referred to as *tabulae*. [46] The carver may have been attempting to render a triptych type tablet, with the books piled by his knee representing bundles of wax tablets. Thus the traditional interpretation of the relief can be upheld.

In the case of the Ahenobarbus relief, it is possible that the wax tablets represent a preliminary stage, with a full census list and its various derivatives compiled on a papyrus (or linen, see below) roll for storage. On the other hand, in the Trajanic relief the aim of the depicted exercise was to destroy tax records. It is unlikely that this was done only by destroying preliminary accounts or notes.[47] Moreover, the Republican censors gave lists of taxpayers to the treasury.[48] Although the Trajanic reliefs belong to a later period, they suggest that these taxpayer records, derivatives of the census, were wax tablets. Both carvings indicate that wax tablets had an important archival function in ancient Rome, particularly in the context of the census. The records may have been bulky, but they nonetheless appear to have been the material of choice for the census.

Further, Meyer has demonstrated that wax was considered a long lasting material by the Romans.[49] The *imagines* of ancestors were sculpted from wax, and it is difficult to argue that they were intended to be short lived objects.[50] This longevity is borne

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[44] Torelli (1982) 9 hedges his bets, referring to the writing materials as registers and books.
[45] Torelli (1982) 15 dates the relief to 115 and the censorship of Cn. Domitius Ahenobarbus.
[46] E.g. *tabulae* Livy 6.27.6, 29.37.7.
[47] Posner (1972) 163 states that these tax records could not have been expected to last, but provides no argument. It is unlikely that tax records were expected to last a great many years.
[48] Livy 29.37.12.
[49] Meyer (2004) 35.
[50] Sallust, *Iug.* 4.6.

out by how wax tablets were viewed in Roman law. By at least the Late Republic wax tablets had become crucial to establishing legal decisions. Gurd emphasises that Cicero presents wills, contracts and accounts as having a greater legal status when on *tabulae*.[51] This significance probably originated from the treatment of *senatus consulta*. *Senatus consulta* had to be written up and deposited in the *aerarium* to be considered valid.[52] Josephus' mention of 'public tablets', probably translated from '*tabulae publicae*',[53] points to the use of wax tablets by magistrates to record the advice given to them by the senate. The storage of these tablets in the *aerarium* gave the advice validity because Saturn acted as guarantor for their contents.[54] Arguably, the act of recording *senatus consulta* and depositing them was more significant than the material on which they were written, much in the same way that a significant part of the *lustrum* ceremony closing the census period was storing the census records (see IV:iii). In Meyer's words, the deposited records and *tabulae* were the 'authoritative and final embodiments of the new reality they helped to create'.[55] The wax tablets only held authority due to these associations. Cicero's trust of documents on *tabulae* demonstrates that by the Late Republic the line between the validity of material and its contents had blurred. The tablet itself became a guarantor of authenticity. Such a conclusion supports wax being seen as a reliable, long-term archival material.

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[51] Gurd (2010) 85; cf. Cicero, *Ros. Com.* 2.6-7. Ulpian (*Dig.* 29.3.2.2) states that wills had legal status on whatever they are written. Cicero does not disagree, but does suggest that *tabulae* were considered, at least in the first-century, more reliable.

[52] Josephus, *AJ* 14.10.10 - Δόγμα συγκλήτου ἐκ τοῦ ταμιείου ἀντιγεγραμμένον ἐκ τῶν δέλτων τῶν δημοσίων τῶν ταμιευτικῶν Κοΐντω Ῥουτιλίω Κοΐντω Κορνηλίω, 'the opinion of the senate, copied from the treasury from the public tablets of the quaestors Quintus Rutilius and Quintus Cornelius' cf. Plutarch, *Cato Min.* 17.3; Suetonius, *Aug.* 94; Cicero, *Cat.* 1.2.4.

[53] Sherk (1969) 8 cf. Plutarch, *Cato Min* 17.3.

[54] For temples as guarantors see V:iii.

[55] Meyer (2004) 22.

Wax tablet is the only form in which *in situ* archives survive. During the Pompeii

excavations, business records of an auctioneer named L. Caecilius Jucundus were

discovered in his home.[56] These records were private rather than concerned with

state governance, and do not reflect the scale of record-keeping which accompanied

the census. Nonetheless, the discovery is significant. Jucundus' tablets show signs

of organisation. Although some of the archive seems to have been destroyed

(perhaps in the earthquake of 62[57]), and attention was not paid to their organisation

during the excavation, many of the records are marked on the edge.[58] Posner

suggests that this was for quick identification and thus that the tablets had an order,

forming a small but organised archive.[59] Jucundus' archival organisation supports a

similar arrangement for *senatus consulta*. Coudry has pointed out that the

inscriptions of some laws include what appears to be an archival reference to the

location of the relevant *senatus consultum* from which the inscription was copied.

The information is not relevant to the inscription's content but was added by the

engraver. This reference included the consular year, the month and a number

specific to that *consultum*.[60] Josephus refers to a similar system, although with

eponymous quaestors.[61] Together with this evidence, the Pompeii archive points to

regular information storage using wax tablets in an organised archive.

Whether military documents were stored on wax tablets can now be explored. The

lack of direct Mid-Republican evidence means that conclusions must remain

hypothetical. It is possible that quaestorial accounts were submitted on wax tablets.

As already noted, Cicero considered only wax tablets to be solid evidence. It would

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[56] *CIL* 4 Supp. 1.1-153.
[57] Jongman (1988) 215.
[58] E.g. *CIL* 4 Supp. 1.38, 100, 158. Cf. Andreau (1982) 14.
[59] Posner (1972) 163.
[60] Coudry (1994) 67-69; e.g. *CIL* 1.2^2.588.1.3.
[61] Josephus, *AJ* 14.10.10.

then follow that Verres' quaestorial accounts (see IV:ii) were on a wax tablet.[62] However, the matter is not so simple. The second Verrine is a difficult speech, much of which was probably never given. Gurd argues that the evidence presented was from *commentarii*, which may not have had the same status. It is quite possible that these *commentarii* were likewise on wax tablets, but Gurd is sceptical.[63] On the other hand, as the quaestor was a treasury representative, it is plausible that his accounts were stored there (see below, V:iii). As the *senatus consulta* suggest that *aerarium* records were in wax tablet form, the same material for a different record might be expected. Indeed, such a secure material would be desirable for accounts meant to prevent corruption by commanders. If so, this indicates that quaestorial, and possibly consular, financial accounts from campaign were written on wax tablets.

The nature of the census records can also be explored further. It has been established that census records included the use of wax tablets. However, it seems the derivative lists took the same form. Lists of those liable for military service were called the *tabulae iuniorum*. The use of *tabulae* points to wax tablets. These were organised by tribe; a full list for each tribe would have taken several tablets, especially if exemptions and military service were also marked. Alternatively, the *tabulae iuniorum* may have excluded anyone already exempt, shortening the list and presumably speeding up the selection process at the *dilectus*. That these lists would nonetheless have been quite bulky need not be a problem. If the entire census was recorded on wax tablets, a derivative list would have been smaller and comparatively easier to use.

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[62] Cicero, *Verr.* 2.1.14.36.
[63] Gurd (2010) 85, 90 using Cicero, *De Or.* 2.52.

On the other hand, it is less clear whether the legion lists generated at the *dilectus* would have been written on wax tablets. The only source to explicitly mention the list is Polybius. His Greek does not give an indication of the type of material, only that a list was generated.[64] As a copy went on campaign, it is possible that it took the form of leaf-style tablets for ease of transportation. Alternatively, a wax tablet legion list was desirable for the extra durability it offered both in the field and if necessary for use by censors at the next census. Either seems equally plausible. On balance, a wax tablet list in Rome at least may have been more sensible, as the list would need to survive as long as five years intact to be useful at the next census.

Pliny's final writing material of interest here is linen. The *libri lintei*, linen books, are mentioned on occasion by several ancient writers, yet modern scholars tend to consider them principally the reserve of Etruscan religious writings.[65] The linen wrappings of the Zagreb mummy are a surviving example.[66] These contain an only partly translatable Etruscan text, but from what can be established the text is religious. The wrappings are dated to the third century, indicating that linen was used as a writing material in Italy during the Middle Republic. However, as not all Etruscans were Roman citizens in the third century, and the text is religious rather than administrative, it alone does not allow the conclusion that linen was used for administrative purposes in Rome.

Fronto's description of discovering many religious ceremonies and linen texts at Anagnia in 144 AD demonstrates that linen was not the sole preserve of Etruria.[67]

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[64] E.g. Polybius 6.21.1.
[65] Livy 4.7.12, 4.13.7, 4.20.8, 4.23.2, 10.38.2; Fronto, *Ep.* 4.4.1; SHA, *Aurel.* 1.7; Ulpian, *Dig.* 28.1.22; Pallottino (1955) 153-4; Posner (1972) 164; Frier (1975) 88; Haines (1982) 175; contra Bucher (1987) 28-9.
[66] Van der Meer (2007).
[67] Fronto, *Ep.* 4.4.1 – *praeterea multi libri lintei, quod ad sacra adtinet.*

On the other hand, the dating of Fronto's linen works is uncertain, and again they do

not provide evidence of use in Rome. As for their purpose, Fronto says that the

books he found were linen because of their sacred nature, but it is unclear in which

direction this inference should be taken: that they are linen books containing sacred

information, or that Fronto assumes they are sacred because they are linen. This

uncertainty allows for the possibility of a non-religious text on linen, but can do no

more than this. As with the Zagreb mummy writings, the Anagnian linen books do

not demonstrate that linen was used administratively in Mid-Republican Rome.

The use of a religious formula from a linen book during the formation of the Samnite

Linen Legion also adds to the sense of *libri lintei* as religious books.[68] The linen-

covered compound which gave the legion its name also suggests a religious

connection. However, this connection of religious linen with army formation need

not rule out an administrative role for linen. As already seen (IV:iii), by the Middle

Republic the *lustrum* ceremony of both the census and new commanders in the field

was a religious event insolubly tied to written administration. The deposit of census

documents was a ritual event and the subsequent documents could not be tampered

with, indicating a sacred status. Further, the linen book used by the Samnites in the

formation of the Linen Legion had an explicit military as well as religious

connection. The priest claimed that the formula originated from ancient battle plans

against the Etruscans. Thus while linen may have carried a form of sacred status in

third-century Italy, this status does not prevent it from also having an administrative

role. Indeed, the majority of Livy's references to *libri lintei* suggest a secular

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[68] Livy 10.38.5.

purpose.[69] As such, the *libri lintei* may provide an earlier alternative to papyrus

rolls, as Pliny suggests in the quoted passage.

The only Roman linen books specifically known from the ancient sources are those

which, according to Livy, Licinius Macer used to find an apparently alternative list

of fifth-century magistrates.[70] The *libri lintei*, then, seem to represent a very early

form of state administration which was recorded on linen rolls. Thus linen is a

potential material for military documents for which long-term storage was desired.

However, several modern scholars consider these *libri lintei* a hoax,[71] possibly

perpetrated by Macer himself in a bid to resurrect the reputation of traditional

chronology and his family. Frier has argued that Macer wrote his history in response

to an attack on the historical method of previous annalists by Claudius

Quadrigarius.[72] Claudius apparently began his history after the Gallic Sack in an

attempt to convey only what he considered reliable information,[73] effectively

deleting the prominent fifth-century history of the Licinii. Such a motivation may

have spurred Macer to 'discover' a lost record to rehabilitate the history of his *gens*

(although this is not the conclusion Frier reaches). If this is correct, the case of linen

as a recording material in the Republic must be dismissed.

Despite this objection, there are stronger reasons for considering the *libri* a

legitimate discovery by Macer. Livy mentions the *libri lintei* due to a disagreement

between two of his sources, Tubero and Macer, over the office and identity of a

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[69] Livy 4.7.12, 4.13.7, 4.20.8, 4.23.2.
[70] Livy 4.7.12, 4.13.7, 4.23.2, 4.20.8 - *quis ea in re sit error, quod tam veteres annals quodque magistratuum libri, quos lintei in aede repositos Monetae Macer Licinius citat identidem auctores.* Cf. Dittman (1935) 288; Ogilvie (1958) 40; Meadows & Williams (2001) 29.
[71] E.g. Mommsen (1859) 93-8; Gudeman (1894) 143; Klotz (1937) 217. For a fuller discussion of this issue and further bibliography see *FRHist I* 324-6.
[72] Frier (1975) 93-4 with Plutarch, *Num.* 1.2, contra *FRHist* I 324-5.
[73] This accords with Livy's statement (6.1) that most of the city's records were destroyed in the fire which accompanied the Sack.

certain year's magistrates. Livy questioned the accuracy but not the existence of

Macer's source. Significantly, as Ogilvie has pointed out, Tubero did not question

its existence either.[74] This acceptance may be due to the location in which the rolls

were discovered, the temple of Juno Moneta.[75] The temple was founded in 345.[76]

The exact meaning and origin of 'Moneta' is unclear, with three etymological and

historical origins suggested by the Romans themselves. Meadows and Williams are

right to conclude that the true origin will probably never be known.[77] However, they

argue convincingly that Moneta was strongly associated with the Greek *Mnemosyne*

and memory and should be translated as the Remembrancer. Thus Juno Moneta was

a credible source unlikely to be questioned.[78] Livy's and Tubero's acceptance does

not prove that Macer did not fabricate the rolls, but on balance it seems unlikely.

Thus, linen remains a possible material for archival usage.

Moreover, a temple was the natural home of records (see below, V:iii). This

connection between temples, the sacred, and documentation (already demonstrated

by the census) may provide further support for linen as an archival material. If linen

was a material readily associated with the religious, as the Linen Legion, the Zagreb

mummy and Fronto all indicate, it suggests that linen was an obvious choice for

documents important to the state. In particular, the census records, documents

already loaded with religious associations, may have been recorded on linen before

papyrus appears to have become the regular administrative material sometime in the

Late Republic. In the case of Macer's *libri lintei*, their storage in the temple of Juno

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[74] Ogilvie (1958) 46.

[75] Livy 4.7.12, 4.20.8.

[76] Livy 7.28.4-6.

[77] Meadows & Williams (2001) 33. Possible origins are: 1. *evocatio* from Veii (Livy 7.28.4-6, Plutarch, *Cam.* 36.9; Ovid, *Fasti* 6.183-90; Valerius Maximus 6.3.1a); 2. warning during an earthquake (Cicero, *Div.* 1.101); 3. advice in a time of war (Suda s.v. Μονητα).

[78] Meadows & Williams (2001) 33, 36-7; cf. Hardie (2007).

Moneta despite their apparent more secular nature may then be explained by the sense of the religious inherent in the linen as well as the temple. The discovery of a secular magistrate list in a temple may well be explained by the pervasion of the religious in all elements of Roman life.

There are other less severe difficulties to overcome. There are arguments to suggest that the *libri lintei* were not a fifth-century remnant.[79] This is not problematic for this discussion, as it is only necessary to establish that linen books could date to the Middle Republic. The use of linen for lists of magistrates, especially consuls who were by nature generals, indicates that other military documents may also have been committed to linen.

A final problem is linen's survival over several centuries. Ogilvie argued that when Macer discovered the *libri lintei* they were showing signs of age, consistent with several centuries of existence.[80] Moreover, linen was considered a hardy material. Its use as armour indicates its durability. That it was believed to last for centuries is demonstrated by the *spolia opima* of Cossus from 437. This was formed of an inscribed linen breastplate placed in the Temple of Jupiter Feretrius.[81] When rebuilding this temple, Augustus claimed to have seen the breastplate with its inscription still *in situ*.[82] Livy accepted Augustus as an authority. If true, this demonstrates that linen could survive nearly half a millennium intact and with its inscription still legible.[83] Perhaps more significantly, it illustrates that Livy and his

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[79] E.g. the belief that all Rome's ancient documents were destroyed in the Gallic Sack, Livy 6.1.
[80] Ogilvie (1958) 46.
[81] Livy 4.19-20.
[82] Livy 4.20.7.
[83] This should perhaps be doubted, however. To survive into the 20s, the breastplate also survived a devastating fire on the Capitol which prompted the rebuilding, or at least refinishing, of many temples in the 70s. Further, if glue was used to laminate the armour's layers (cf. Aldrete (2015)) it may have had an effect on prolonging the life of the material. Alternatively, the only secure surviving example of linen armour was made using a twining method (Yale no. 1933.481 cf. Pfister & Bellinger (1945)

audience considered such a survival plausible. Even if linen could not survive intact for 500 years, it appears that the Romans believed in its longevity. Such a belief, coupled with its demonstrably sturdy nature, would have made linen an ideal archive material, perhaps superior to papyrus.

It remains to ask whether military records were kept on linen. The census is the most obvious option for such storage. That wax tablets were used for the collection of census data has already been established, but this does not rule out linen's use for the final definitive list which was carefully deposited or for derivative lists. Following his defence of the early census figures, Frank has argued that the figures from before 225 were preserved in the same *libri lintei* consulted by Macer. He highlights that Livy cites Macer and the *libri lintei* particularly for the few decades following the establishment of the censorship.[84] This may be a false correlation, as it is possible that Livy cited Macer and the *libri lintei* again in books 11-20. However, this cannot be known one way or the other without the discovery of the lost books. Using the extant evidence, Frank is right to consider this correlation notable. As such, it appears that the *libri lintei* may also have included census data alongside magistrates. This perhaps ties the books more closely to the *Annales Maximi* which included notable events of the year. Either way, that the books may have contained a summation of Rome's manpower, if not a full breakdown, indicates that linen was considered a suitable material for recording such information. If a summary could be kept on linen, it is plausible that the more detailed breakdown required to mobilise this manpower outside a *tumultus* was recorded likewise.

59, Taylor (2012) 64-71). This greave and the Zagreb mummy reveal that linen can be extremely long lasting in the correct conditions.
[84] Frank (1930) 316 n.10.

To conclude, Pliny's comments on writing materials help to establish the possible form of Mid-Republican military documentation. The lack of direct evidence means that these conclusions cannot be certain, but the weight of evidence points in their direction. Although bronze is the most prominently surviving material, it was not appropriate to record the activities of military life. Rather, it is probable that leaf-style tablets were a favoured material for the organisation and regulation of an army on the move. The ease of their production and small size made them ideal for this task. As decisions regarding legion recruitment and deployment were made by the senate, such information was treated like any other *senatus consultum*, that is, written on a wax tablet and deposited in the *aerarium*. Financial accounts had a clear connection to the treasury and needed to be considered immutable, suggesting that a wax tablet would be the ideal medium. The lack of trust in *commentarii* exhibited by Cicero points away from wax tablets to linen as the stored form of *commentarii*, although for those on campaign leaf tablets may have been a more convenient form of first draft. It is only with the census that a conclusion is more difficult. The repeated mention of wax tablets means that their presence cannot be ignored, but nor can the possibility that the full list could be written up on a more easily stored linen roll.

It may be questioned why papyrus took so long to take hold as an archival material in Rome, allowing linen a perhaps unexpected prominence. The answer to this question is in part provided by Pliny's passage. It has already been commented that Pliny chose to use the term papyrus only once in his discussion of writing material, preferring the term *charta* instead. The conclusions of this section suggest that the emphasis of *charta* should be 'writing surface' generally rather than papyrus in particular. Pliny emphasises the importance of papyrus as a writing surface because

it had become the primary record form. The emphasis in the following phrase is that writing, i.e. bureaucracy, was important to running the empire, not papyrus in particular. In addition to supporting the notion of a relatively complex bureaucracy in the Middle Republic, Pliny's comments indicate the endurance of other writing surfaces, not requiring papyrus to be prominent until the first century AD. The often noted conservatism of Rome may well explain the time taken for papyrus to reach ascendancy. Rome already had several serviceable writing surfaces; there was no pressing need to change a functioning system.

ii: Record sizes

Before continuing to discuss the storage location of records, potential record sizes must be considered. An approximate volume of the records will help in the attempt to identify possible archives. This is most easily achieved by examining wax *tabulae* and the legion list generated at the *dilectus.* Using a sample of the tablets of Jucundus from Pompeii with an average wax area of 82x107mm and depth of 7mm, Bucher has calculated that the average character density of the tablets is 19,226 characters/m^2, or approximately 167 characters per page.[85] Using a tablet of this size, the potential length of the legion list can be calculated. For an ordinary legion, 4500 names would be required. Latin names in the form 'C. Iulius Caesar' have approximately 16 characters excluding spaces.[86] Thus for a cramped list using all the available space on a tablet, 450 *tabulae* of 147x118mm would be required. At 7mm thick each, these would take up 3.15m of shelf space. If four legions were in the field, and the legions were larger, the space required even for the military records

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[85] Bucher (1987) 25-6 using *CIL* 4 Supp. 1.1, 6, 7, 10, 17, 19, 21.
[86] E.g. C. Iulius Caesar = 13, Ti. Sempronius Gracchus = 20, L. Aemilius Paulus = 16, Q. Lutatius Catulus = 16, Q. Fabius Maximus = 14, etc. A different form will be examined below.

of one year quickly grows. Census records, which contained a much greater number of individuals and more information about them, would have taken up considerably more space.

However, the size of Iucundus' *tabulae* is not a limiting factor. Both the Ahenobarbus relief and the *Anaglypha Trajani* depict larger tablets.[87] The perspective of the carvings makes exact measurements impossible, but the relative size of nearby bodies allows an estimate. The *tabulae* appear to be approximately the length of a thigh and half as wide, that is about 45cm long and 22.5cm wide. The open pair on the Ahenobarbus relief suggest that the border around the wax area is about the width of the finger of the standing figure. A 2.5cm border will be assumed. This gives a wax area of 42.5x20cm. Following Bucher's calculations, the maximum number of characters per tablet is 1634 (to the nearest character).[88] For a cramped legion list using all the available space 45 tablets would be needed. It is reasonable to assume that the thickness of these larger tablets would be greater than Iucundus' smaller ones to prevent snapping: 10mm will be allowed per tablet. Thus 45cm of shelf space would be required. The overall volume of the list on the larger size is also smaller, $0.045m^3$ compared to $0.054m^3$. In terms of accessing the records in addition to storing them, the larger volumes would have been much more convenient as they use much less shelf space. These are of course estimates; any changes in the size of writing would have an impact on the number of *tabulae* required.

As it has been suggested that records on campaign were kept on leaf-style tablets, it is worth translating as far as possible these lists onto this material. The known

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[87] See V:I n.42-3.
[88] = (0.425 x 0.2) x 19226.

tablets are approximately the size of postcards. Here a size of 10x15cm will be assumed, although examples as wide as 25cm are known. The tablets are approximately 1mm thick. Size probably depended on the nature of available timber as well as the intended purpose. The same character density as wax *tabulae* will be used for the purposes of comparison. Thus the maximum number of characters per sheet is 288.[89] For a list of 4500 following the same conventions as above 250 tablets would be required, taking up a shelf space of 25cm and a volume of 0.004m^3. This would be much more convenient for a travelling army disadvantaged by extra baggage. Even if each soldier was allocated half a sheet of the leaf tablet, the resultant records would only take up 0.034m^3. Doing the same with the small wax tablets would give a volume of 0.273m^3, eight times more.

The calculations above all assume that *cognomina* were in regular use in the Mid-Republic, which is not necessarily the case. If it is instead assumed that names were given without a *cognomen* but with a filiation, significantly less space is required. Each name is an average of approximately 11 characters.[90] 297 small wax tablets with a shelf-space of 2.08m would be required for a legion of 4500, or 31 large tablets with a shelf-space of 31cm. For the leaf-style tablets with the maximum character density 172 tablets would be required for the same legion. Overall, if *cognomina* were not used in lists the quantity of material required was even less, and thus easy to store and transport.

Examining the size of records supports the conclusions reached above. The use of leaf-style tablets on campaign would be significantly more space efficient than the

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[89] = (0.1 x 0.15) x 19226.
[90] E.g. C. Iulius C.f. = 9, Ti. Sempronius Ti.f. = 15, L. Aemilius L.f. = 11, Q. Lutatius Q.f. = 11, Q. Fabius Q.f. = 9 etc.

wax equivalent. The use of larger wax tablets as seen in the Ahenobarbus relief for

the census and its derivatives would have made storage indoors easier than a smaller

version, both in absolute volume and in terms of accessibility. The lack of

information about the nature of linen rolls means a similar analysis cannot be

undertaken. Nonetheless, it can be said that information stored in this way would be

more similar in size to the leaf-style than to wax tablets.

iii: Location of storage

Where these documents were kept is the next element of Roman military

administration to be examined. Identifying the buildings, locating them

topographically, and examining their geographical as well as functional

relationships, all help to reveal the development of administration through the

period. A lack of direct evidence concerning the Middle Republic means that there

is a limit to how far this discussion can be taken. Nonetheless, this section will

examine possible storage locations, focusing on the complex of buildings at the

north-western end of the *forum Romanum* and the south-eastern slope of the Capitol.

Before discussing this area, however, the issue of private storage must be addressed.

The census from 393/2 seen by Dionysius of Halicarnassus was kept privately. He is

explicit that it was handed from father to son for preservation.[91] There is nothing in

Dionysius' presentation to suggest that he or his readers found this unusual. Rawson

uses the document to suggest that it was regular practice for censors to take

documents home after their period of office as mementos of their achievement.[92]

This can be inferred from Dionysius' description, but leaves several questions.

Where documents were kept during the eighteen-month census period is unclear, and

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[91] Dion. Hal., *Ant. Rom.* 1.74.5.
[92] Rawson (1985) 238-9.

private storage is an obstacle to census taking being based on the records of the previous *lustrum*. It also means that any derivative lists could only be collated once every five years, failing to account in particular for deaths and the movement in and out of the *iunior* age bracket (this problem will be dealt with in greater detail below, VI:iii). More significantly, keeping census records privately contradicts the census record's ritual depositing, *lustrum condere* (IV:iii). Placement in the *tablinum* of an individual about to end his magistracy and return to private life does not fit with the sanctification of records which embodied the citizen body, and so in a sense Rome itself. On the other hand, there is little reason to suspect Dionysius' discovery. A solution is required.

Suolahti argued that a draft form of the census would have been kept by the censors, particularly earlier in Rome's history.[93] He based this conclusion on the same passage of Dionysius, but it has merit. Draft forms of records would presumably not have been stored with the final census list. Rather than destroy them, they were perhaps kept by the censors as a memento, memorial and teaching tool for following generations. Such an interpretation is supported by Dionysius' language. His mention of the census records can be literally translated as 'from censorial memorials', ἐξ […] τῶν […] τιμητικῶν ὑπομνημάτων. This need not imply that the entire census was preserved, but perhaps selected highlights, for example the *equites equo publico* list. It seems probable that the census drafts at the very least were kept on wax tablets (V:i). The physical space required to store them, many times that of the legion list (V:ii), would have been considerable; again this suggests that privately

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[93] Suolahti (1963) 33.

held census records were not the full official version. For the census at least, privately held records appear not to have been the only state record.

The same need not be said for the *commentarii* of magistrates. Cicero encouraged magistrates leaving office to turn over their records to the censors.[94] This implies that first-century magistrates were in the habit of retaining their records privately. The same appears to be true in the Middle Republic. According to Livy, Scipio Africanus destroyed his account book in frustration at having his integrity questioned by the senate.[95] The passage is somewhat confusing, as it seems to almost conflate two separate accusations against Lucius and Publius Scipio.[96] In the case of Lucius, no account books are mentioned, possibly because his quaestor, Gaius Furius Aculeo, was also convicted;[97] duplicate book-keeping was no guard against corruption if both books were cooked. Moreover, as both men had handed the money to the treasury before being arraigned it is likely that it was properly written up in both accounts, only becoming a problem once the allegation of bribery arose.[98] Africanus' case, on the other hand, is more illuminating. In order to destroy his accounts, Publius sent Lucius to fetch them.[99] This suggests that the accounts were kept in the Scipio household rather than an official archive such as the *aerarium*. There is no sense that this was unusual; it was their destruction which was shocking, not their storage location. Coupled with Cicero's appeal, it seems that the private

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[94] Cf. Mommsen (1893) 4 n.2; Cicero *Orat.* 46.156. This also implies that the censors had an archive of sorts in which to store these documents.
[95] Livy 38.55.10-12 – *librumque rationis eius*. *Liber* perhaps indicates linen or papyrus as the material. Certainly it was something easily torn, ruling out wax tablets.
[96] Cf. e.g. Luce (1977) 92-104; Jaeger (1997) 132-75.
[97] Livy 38.55.5-7.
[98] Livy 38.55.6. From Livy's description, it appears that neither Lucius nor Aculeo considered their actions illegal or immoral, especially as the state was the beneficiary. On the other hand, Africanus' actions are more than a little suspicious.
[99] Livy 38.55.10-11.

storage of magisterial *commentarii* and commanders' financial accounts was the norm.

In the first section it was mentioned that *senatus consulta* were stored in the *aerarium Saturni*, or treasury of Saturn, on wax tablets. Following the discussion, it was also suggested that quaestorial financial accounts were kept there. *Quaestores* functioned as treasury officers while on campaign, with their accounts a parallel of the consul's to guard against corruption (see IV:ii). It thus follows that these accounts were then stored in the *aerarium*, both due to it effectively being the quaestors' administrative hub and due to the importance of depositing documents in the treasury to ensure their validity. This would explain how Cicero was able to get hold of Verres' accounts, as it is unlikely he volunteered them from his private records.[100] Sutherland described the *aerarium* as the heart of Rome's financial machinery.[101] The image of a machine is perhaps going too far, but Brunt is undoubtedly right to suggest that the quaestors running the treasury had a more active role in advising the senate on financial matters rather than simply acting as custodians.[102] In order to organise and pay an army, some concept of state funds was required. Accounts under the care of the quaestors are a logical conclusion, even if they were more abbreviated in form than those previously proposed as kept on campaign (see IV:ii).

There are few ancient references to keeping accounts or other documents besides *senatus consulta* in the treasury for validity, but temples were considered to provide secure and binding storage.[103] The importance of depositing census documents in

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[100] Cicero, *Verr.* 2.1.14.36, IV:ii.
[101] Sutherland (1945) 154.
[102] Brunt (1966) 90, contra Millar (1964) 38.
[103] Cf. Culham (1989) 110.

the *lustrum condere* ceremony as a sanctification and safeguard of the citizen body has already been discussed (IV:iii). Other documents stored in temples are also recorded. The *libri lintei* in the Temple of Juno Moneta may be one such example (see V:i).[104] More securely, Julius Caesar's will was entrusted to the Vestal Virgins, presumably to keep it secure and prevent tampering.[105] That Octavian was able to manipulate Marcus Antonius' will as he did reinforces this presumption.[106] Beard suggests that lists of temple contents given by Pliny the Elder may be derived from a 'contents list' kept in each temple.[107] These do not date from the Middle Republic nor refer directly to documents, but together with the other examples are indicative of a culture in which temples provided security.

It is also plausible that quaestorial *commentarii*, if not kept in private records, could have been kept in the *aerarium*.[108] As the treasury was run by the quaestors,[109] leaving records to inform future incumbents seems plausible, in the same way that privately stored records assisted the family. There is a parallel in the *album praetoris*, a document written each year to establish the conduct of the urban praetor. These were probably modelled on that of the previous year, demonstrating the passing of knowledge from office-holder to office-holder.[110] The *alba* were not the same as *commentarii*, but this desire to establish the magistrate's role suggests that there was communication between office holders of different years. Reading *commentarii* would be a quick way in which to familiarise oneself with the

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[104] Livy 4.7.12, 4.20.8.
[105] Suetonius, *Iul.* 83.1.
[106] Suetonius, *Ant.* 58.2-3; Dio 50.3.3-4.1. Whether Octavian invented the offending passages after forcing the Vestal's to relinquish it is irrelevant.
[107] Beard (1998) 93; e.g. Ceres: Pliny, *HN* 34.15, 35.24, 35.99; Concord: Pliny, *HN* 34.73, 77, 80, 89-90; Apollo Palatinus: Pliny, *HN* 36.13, 24-25, 32, 32.11.
[108] Varro, *Ling.* 6.91.
[109] Polybius 23.14.5-6.
[110] Cf. Bucher (1987) 21.

requirements. As the *aerarium* was both an archive and the building most associated with the quaestors, it is the most obvious place for *commentarii* to be kept if not privately. Additionally, the need to hand over financial accounts may have made the passing of *commentarii* more natural than for other magistrates.

Moreover, the *aerarium Saturni* had a more direct link to military matters. The military standards were kept there when not in use.[111] This may point more to the importance of temples, or to Saturn in particular, as guardian forces than to a military link. Nonetheless, that the treasury had such a long-standing link with military paraphernalia suggests that over time the storage of other military items in the same location would have seemed natural. *Senatus consulta* on recruitment, deployment and reinforcement were already deposited there as a matter of course and it appears that financial accounts of campaigns were also stored there. Military spoils had long been deposited there, leading Culham to describe Saturn as a 'heavenly book-keeper'.[112] It is not a great leap to imagine that information such as legion lists could also have been archived in the *aerarium*. This cannot be conclusively demonstrated, but the *aerarium* remains a good candidate for the location of the storage of military documents in the Middle Republic.

Exactly where the *aerarium Saturni* was located is unclear and much debated. It is strongly associated with the Temple of Saturn, which is located on the south-east slope of the Capitol. Since the erection of the building known as the 'Tabularium', the temple appears to be in the *forum* rather on the Capitol. However, Purcell highlights that Saturn is on the hill, as the *forum* began at the bottom of the slope.[113]

[111] Livy 3.69.8, 7.23.3.
[112] Culham (1989) 111.
[113] Purcell (1993) 132.

At the beginning of the Middle Republic, the closest buildings in the *forum* were the

senate house and the Temple of Castor and Pollux. Without the obstruction of the

'Tabularium', the connection with the Capitoline complex was much clearer (fig.

1).[114] This in itself suggests a possible military connection, as it was on the Capitol

that the *dilectus* took place (see II:iv), the auguries for consuls were taken and a

campaign officially began.[115] The area around the temple, later built upon, probably

made up the *area Saturni*, although its boundaries are unknown. The temple is one

of the oldest in Rome; its exact date is disputed, but the foundation was probably

sometime in the first decade of the fifth century around the Republic's founding.[116]

Figure 1: South-eastern Capitol and North-western forum in the third century
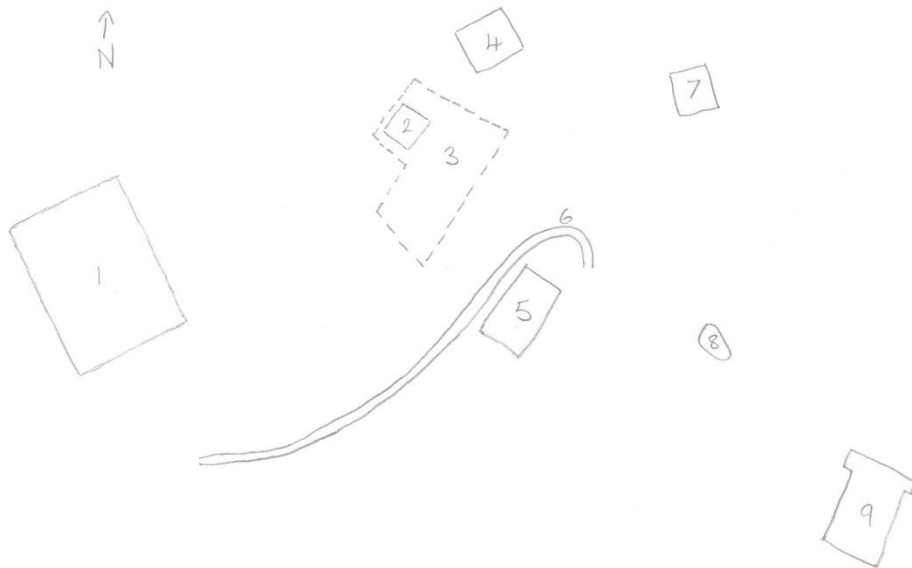
1. Jupiter Optimus Maximus, 2. Mint (?), 3. 'Tabularium' (built 78), 4. Juno Moneta, 5. Saturn, 6. Clivus Capitolinus, 7. Senate House, 8. Lacus Curtius, 9. Castor and Pollux

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[114] Richardson (1980) 53.
[115] Livy 45.39.
[116] Tullius Hostilius or Tarquin Superbus: Macrobius, *Saturnalia* 1.8.1; Dion. Hal., *Ant. Rom.* 6.1.4;
501: Macrobius, *Saturnalia* 1.8.1; 498: Dion. Hal., *Ant. Rom.* 6.1.4; 497: Livy 2.21.2; Dion. Hal., *Ant. Rom.* 6.1.4. For a description of the temple see Platner & Ashby (1929) 463-4; Coarelli (1999) 234-6.

Where the *aerarium* was in relation to the temple is disputed. One suggested location is underneath the stairs which lead up to the podium.[117] This is supported by Asconius' comment that Pompey's chair was placed '*ad aerarium*' during Milo's trial.[118] That Ti. Gracchus sealed the door to the *aerarium* in 133 suggests that there was only one entrance.[119] Richardson takes this to mean that Pompey's chair was placed before the treasury's door, which he seems to imagine was in the side of the podium. However, there is no need to limit the translation of *ad aerarium* to 'before the door of the *aerarium*'. The placement of Pompey's chair could have been anywhere in the treasury's vicinity. Its location is not narrowed down. Moreover, Asconius was writing after the temple's rebuilding in 42.[120] If the treasury, or part of it, was contained within the temple itself, the door may have been in a different place. Lugli reconstructed this space with a door in the side of the podium, but his drawing has been branded a 'preposterous reconstruction' with 'ugly design' and 'inadequate stairs'.[121] Design features aside, the stairs are problematic as they do not reach ground level across the hill's slope in front of the temple. The door is also truncated, making entrance to the space difficult. It does not appear to be the location of an archive.

This is largely irrelevant to this thesis, as the reconstruction took place in 42, after the period under discussion. However, there are also problems with the treasury being below the stairs in an early incarnation of the temple. Vaulting as an architectural feature was not used by the Romans until the second century.[122]

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[117] Richardson (1992) 344 cf. Corbier (1974) 632. Under the podium of a temple was the location of the *aerarium* in Pompeii.
[118] Asconius, *Mil.* 40C cf. 41C (*pro aerario*).
[119] Plutarch, *Ti. Gracch* 10.6.
[120] Suetonius, *Aug.* 29.5.
[121] Lugli (1947) 35 fig. 4; Richardson (1980) 57.
[122] Cf. Richardson (1980) 56.

Barring possible superficial repair work undertaken following the Gallic Sack,[123] there are not any notices of re-building Saturn until Munatius Plancus' work in 42. Thus if there was a void under the steps of the temple it would have been extremely cramped, poorly suited to the storage of coinage and metal, let alone documentation. It is unlikely that this was the site of a Mid-Republican archive.

Platner and Ashby suggested that only money, in whatever form, was kept in the temple *cella*, with documentation stored in an associated nearby building.[124] This is more plausible than storage under the steps. It is also likely that military standards were kept in the temple's *cella*. When Augustus placed the standards recovered from the Parthians in the Temple of Mars Ultor, they were deposited in the new temple's *cella*.[125] A god's guardianship was desirable for standards. As the objects themselves were symbolic, storage in the temple proper was necessary. In the case of documents it appears that the act of depositing was more significant than the documents themselves (see V:i). Practical requirements insisted that documents be stored outside the temple proper. The storage duration is unknown, but there is no evidence of anything equivalent to the seven-year rule used today. Indeed, that Valerius Antias was able to consult senatorial records to compose his history indicates that they could potentially be stored for centuries (see IV:i). Thus in searching for the treasury archive's location, a building of reasonable size close to the Temple of Saturn must be sought.

The building known as the South-West Building (SWB) is a promising candidate. This building, no longer surviving, was located across the *clivus Capitolinus* from

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[123] Cf. Roberts (1918) 58.
[124] Platner and Ashby (1929) 464.
[125] Suetonius, *Aug.* 29.2.

the Temple of Saturn to the West in the area on which the *Porticus Deorum Consentium* was later built (fig. 2). The SWB pre-dated the 'Tabularium' which was built in 78, leaving a mark on the southern end of the façade.[126] Its exact construction date is unknown, but the late third or second century is likely.[127] The building's location, close to the Temple of Saturn and up the slope rather than in the *forum*, points to an association with the temple. Had the SWB been located down the slope in the *forum*, it could not be considered connected to the *aerarium* as it would have existed in a different space. The period of its construction reflects the imperial expansion begun during the Middle Republic, a period which would necessarily have generated more paperwork from senate and armies. Thus the SWB, although nothing more is known about it, fits in with the Republic's broader development as a building intended for document storage.

It is possible that the remains of a building excavated in a void of the 'Tabularium's' foundations behind the Temple of Veiovis are also connected with the SWB. These consist of ashlar walls and mosaic floors, both apparently badly damaged in antiquity.[128] However, the author leans towards Tucci's argument that this second unknown building should be identified as the mint established in c.269 (fig. 2).[129] It was perhaps subsumed into the 'Tabularium' following the fire on the Capitol in 83. There is an obvious connection between the mint and the treasury, and indeed by extension the military, which probably helped the eventual development of the complex which included the Temples of Saturn and Juno Moneta, the mint, the confusing 'Tabularium' and possibly the *atrium Libertatis*. However, if the void

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[126] Tucci (2005) 9.
[127] Tucci (2005) 21. It may be part of the rebuilding works done in the area in 174, although it is not explicitly mentioned (Livy 41.27.7).
[128] Tucci (2005) 21; Sommella Mura (1981) 128-9, fig. 4.
[129] Tucci (2005) 10. The proximity to Juno Moneta and possible role of the lowest, separate, level of the 'Tabularium' are the strongest factors, see below.

building functioned as a mint it was not the storehouse of military documents and

need not be further discussed.

Figure 2: South-eastern Capitol in c. the first quarter of the second century, 1

1. Jupiter Optimus Maximus, 2. Veiovis, 3. Mint (?), 4. Juno Moneta,
5a, 5b. Porticus Saturni (?) 6. South-West Building, 7. Saturn, 8. Clivus Capitolinus,
9. Senate House

The so-called 'Tabularium' has been frequently mentioned in connection with the

aerarium and deserves some comment. The building itself was constructed in 78,

outside the scope of this study. However, as mentioned, what preceded it may be

significant. Only two floors of the original building survive, revealing a confusing

complex of corridors and tunnels. These are best laid out in the drawings of Purcell

and Tucci.[130] Of particular interest is the lowest corridor, which connects to a series

of rooms in the building's north end and exited on the *clivus Capitolinus* to the

south, just above the SWB. This corridor and the rooms are apparently otherwise

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[130] Purcell (1993) 136; Tucci (2005) 6. The author is not convinced by Coarelli's reconstruction of
the form and function of the 'Tabularium', Coarelli (2010).

unconnected to the rest of the 'Tabularium' above. They may well be associated with the mint and connecting it to the *aerarium*.[131] For this study, the possible origin of this corridor is significant.

In 174 a portico was added to the Temple of Saturn.[132] This is traditionally thought to have run from the temple to the *area Capitolina* along the *clivus Capitolinus*.[133] Such an interpretation supports the idea that legion lists were kept in the *aerarium Saturni* as they could be easily carried to the SWB for storage following their production in the *area Capitolina*, although the course of the path already allowed for this. However, Richardson has suggested that the portico ran instead towards the senate house along the slope, at roughly the later location of the 'Tabularium' (fig. 2).[134] As Richardson notes, this reconstruction requires a reinterpretation of Livy, not a correction. Livy's description of the censors' work is unclear, suggesting that he was describing something he had not seen, and presumably no longer existed. If the portico, or part of it, ran along the line suggested by Richardson, it may be the first incarnation of a path leading from the mint to the treasury. This is indicative of the growing association of buildings in this area. When the 'Tabularium' was constructed, the route connecting these two places was maintained and incorporated in an internal version of a covered walkway. This remains a hypothesis, but points to a sense of connected and organised central administration reflected in architecture. The Temple of Saturn maintains its sense of guardianship, but this is extended through the developing complex.

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[131] Coarelli (2010) 121-3.
[132] Livy 41.27.7.
[133] Platner & Ashby (1929) 463.
[134] Richardson (1980) 62.

It is often assumed by modern scholars that the census documents were stored in the *aerarium* during the *lustrum*.[135] However, this location is mentioned in connection with the census in a specific context. It is only the *aerarii*, taxpayers list which is deposited in the treasury.[136] Prior to the abolition of citizen tax this would in effect have been the majority of those making declarations at the census. Thus there is no reason to believe that this list was identical to the full census document, as only those *sui iuris* were liable for taxation. A separate taxpayer list would have been useful for tax collectors even when this was a more significant part of the population. Only information concerning names, location and tax to be paid was needed, not the extra information concerning family members and military service. This does not rule out storing the census documents in the *aerarium*, but does not provide direct evidence for it. At the very least, a separate taxpayer list was also given alongside the full census. It is this that Livy describes the censor doing in 169; he is not performing the *lustrum*.[137] Other possible locations for the census records must be examined.

It is better to focus on buildings more explicitly connected with storing the census: the *aedes Nympharum* and the *atrium Libertatis*. First, the *aedes Nympharum*. Cicero thrice mentions the temple as the home of the census records in his attacks on Clodius, who razed the temple in 57.[138] Nicolet argues that Cicero is not referring to the census records, but to grain distribution documentation.[139] Cicero states that

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[135] E.g. Suolahti (1963) 33. Implied: Mommsen (1894) 245-9; Millar (1964) 34-6; Coudry (1994) 65; Coarelli (1999) 234. Contra Rawson (1985) 239; Culham (1989) 104; Nicolet (2000) 201; Meyer (2004) 29. The author is not aware of any scholar who makes an argument to support their assumptions.
[136] Livy 29.37.12; Mommsen (1894) 249. There is no need to translate this as 'debtors' here, contra Millar (1964) 36.
[137] Livy 29.37.12. The great antagonism between the censors in this year, with each trying to degrade the other into the *aerarii*, may explain Livy's explicit mention of this act, but it was not the *lustrum*.
[138] Cicero, *Mil.* 73, *Har. Resp.* 57, *Cael.* 78.
[139] Nicolet (1980) 64.

Clodius destroyed the temple in order to destroy records kept there, '*ut memoriam publicam recensionis tabulis publicis impressam exstingueret*'.[140] The *De Haruspicum Responso* has a more roundabout reference to the event, but the *Pro Caelio* refers directly to the '*censum populi Romani*' and the '*memoriam publicam*' being the object of Clodius' attack.[141] The combination of these passages makes it clear that Cicero is discussing the destruction of census records, not any other list, kept in the *aedes Nympharum*. This demonstrates that the census records were kept here in the first century, but further examination is required before the same can be concluded for the Middle Republic.

Beyond Cicero the temple is unknown in the extant sources, making its Mid-Republican role difficult to ascertain. The temple was located somewhere on the *campus Martius*, probably close to the *Villa Publica* where the census took place. The *aedes Nympharum* is usually associated with the temple on the Via delle Botteghe Oscure, diagonally across the crossroads from the *Largo Argentina*.[142] This temple has three building phases, a second-century foundation, a rebuilding towards the end of the Republic and finally Flavian work. The Late Republican work matches Cicero's reports of the temple's destruction. This does not confirm the temple's identification but, with other temples in the vicinity more securely identified, on balance seems likely.

Ziolkowski has argued that the foundation of the *aedes Nympharum* should be dated to 179-67; the foundation was recorded by Livy but has been lost in the lacunae of

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[140] Cicero, *Mil.* 73. Nicolet considers these records to be grain distribution rolls because the term *recensionis* is a rare one in Cicero and is used by Suetonius in this context.
[141] Cicero, *Cael.* 78 – [Clodius] *qui dedes sacros, qui censum populi Romani, qui memoriam publicam suis manibus incendit.*
[142] Ziolkowski (1992) 121; Coarelli (1997) 222-3.

the last extant books.[143] Ziolkowski does allow that it could also have been built at any time following 179 down to the first century. This fits with the founding of the temple on the Via delle Botteghe Oscure, giving the earliest date possible date as 179. Perhaps it should be attributed to the work of the 174 censors.[144] Alternatively, it may have been part of the *Villa Publica* enlargement work in 194.[145] In 194 the censors worked on two buildings known to be connected with the census, the *Villa Publica* and the *atrium Libertatis*. If the temple was intended from its foundation to be the new home of the census records, it follows that it was built at a time when the censors were enlarging their various premises. However, it is odd that Livy does not explicitly mention this foundation; Ziolkowski rightly points out that Livy is scrupulous at including temple foundations.[146] Additionally, it can be asked why the censors enlarged the *Villa Publica* and *atrium Libertatis* if a new census storage location was also planned. On balance, then, it is best to consider the *aedes Nympharum* later than 194, perhaps belonging to the second quarter of the second century.

At what point did the *aedes Nympharum* become the home of the census records? No modern scholar of whom the author is aware has offered an answer to this question. If the temple was intended from its inception as the location for storing census records, the answer is the same as its second-century dedication. However, there are several problems with this theory. Census record storage required quite a lot of room (see V:ii). While the *cella* of the *aedes Nympharum* may have been a symbolically safe place for storage, it is unlikely that the *cella* was a practical

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[143] Ziolkowski (1992) 120, 311.
[144] Livy 41.27.7.
[145] Livy 34.44.5.
[146] Ziolkowski (1992) 120.

storage location of census records for cumulative *lustra*. Ideologically, it is also an odd choice to keep the written embodiment of the Roman people outside the *pomerium*, the city's sacred boundary. The census, with its origins as a military review, took place on the *campus Martius* to prevent arms being carried across the *pomerium*, but it is unlikely that census documents would be ritually deposited in this ideologically more vulnerable area. An alternative location seems more probable.

The solution to this problem is possibly offered by the statements of several modern scholars, although they do not discuss their assumptions further. Suolahti suggests that records kept in the *aedes Nympharum* were those of the ongoing census before their transfer to permanent storage following the *lustrum*.[147] Similarly, Ziolkowski refers to 'some' records being kept in the temple.[148] That there was not a census in 57 when Clodius destroyed the temple is not problematic. The censors of 61-0 never performed a *lustrum*; the beginnings of their work may have still been in the temple in 57 for Clodius to destroy. Alternatively, Cicero may simply have been exaggerating the extent of Clodius' destruction, something which was not beyond him. Thus it appears that the *aedes Nympharum* was not the permanent storage location for the census records at any point in the Republic. Another location is required.

The *atrium Libertatis* is the other location repeatedly mentioned in the context of the census. This was where the review of those *equo publico* occurred.[149] The building is often considered a 'headquarters' for the censors housing their offices.[150] This

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[147] Suolahti (1963) 33.
[148] Ziolkowski (1992) 120.
[149] Plutarch, *Pomp.* 22.4-6; Livy 29.37.8.
[150] Platner & Ashby (1929) 56; Richardson (1992) 41; Coarelli (1993) 133; Purcell (1993) 143; Dix (1994) 283

appears to be confirmed by the censors' actions in 169, who shut up the *atrium* with themselves inside over a dispute.[151] This included locking away the public tables and closing the record room.[152] This action halted the census taking, as Livy states. This suggests that there were census records kept in the *atrium Libertatis* in a room designated for that purpose.

On the other hand, that the censors' actions included sending away public slaves suggests that the records kept in the building may only have been those for the ongoing census, not the permanent storage location following the *lustrum*. This creates a conflict with the proposed purpose of the *aedes Nympharum* in the census. Two temporary census storage locations seems unlikely. However, there is a solution to this problem. Firstly, the foundation date of the *aedes Nympharum* is uncertain and it may not have been built by 169. Secondly, Livy's description of 169 indicates that not just storage happened in the *atrium Libertatis*. The presence of public slaves may suggest that census work was done in the building, perhaps the production of the final list or derivatives such as the *tabulae iuniorum*. Alternatively, these slaves may have been archivists helping the censors find and order necessary documentation from previous *lustra*.[153] Either way, the presence of the slaves and a *tabularium* (a record room, not to be confused with the 'Tabularium') points to a more significant role for the *atrium* than the temple. The use of the *aedes Nympharum* by the first century may have been as a holding location until the records were needed by the *atrium*'s workers. The extra space may have been required following the massive increase in citizen numbers after the Social

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[151] Livy 43.16.13.
[152] Livy 43.16.13 - *obsignatis tabellis publicis clausoque tabulario.*
[153] For more on permanent bureaucratic staff see VI:ii, iii.

War.[154] This cannot be proven, but seems the most plausible explanation. The case for the *atrium Libertatis* as the census records' home cannot be dismissed.

The very name of the building, the 'Hall of Liberty', also suggests that it may have been the permanent storage location for the census records. Purcell suggests that the *atrium* was the location in which non-Romans and ex-slaves were admitted to the citizenship.[155] Certainly it was the location where lists of freedmen's tribal allocations were posted in 167.[156] As the *atrium* was the censors' office and the censors were responsible for the tribal allocation of new citizens the location is not surprising. Nonetheless, that freedmen received citizenship on manumission suggests that the *atrium Libertatis* was the location at which manumission was registered, even if only in the form of a new citizen. Moreover, loss of Roman citizenship came in the form of exile and often, officially at least, sale into slavery.[157] The census was a list of Roman citizens and thus, in Roman eyes, those who were truly free. A building dedicated to Liberty seems an excellent place to store the physical embodiment of the division between free and less free or slave.

Further, the *atrium Libertatis*'s physical history again suggests that it was related to document storage. Asinius Pollio restored it in 39-28, establishing Rome's first public library there, composed of a Greek and a Latin wing.[158] Caesar had planned to provide public libraries containing among other things a digest of legal codes.[159] Boyd considered it probable that this was included in the *atrium*'s library.[160] Ovid reveals that it also held poetry, suggesting that the library contained a variety of

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[154] [Livy], *Periochae* 98.
[155] Purcell (1993) 143.
[156] Livy 45.15.1-5.
[157] *XII Tables* 3.5; Augustinus, *Civ. Dei* 21.11.
[158] Suetonius, *Aug.* 29.5.
[159] Suetonius, *Iul.* 44.1-3.
[160] Boyd (1915) 31.

texts.[161] The choice to establish a library in the *atrium Libertatis* rather than at a

different location suggests an existing association with archival holdings. Coarelli

thinks it probable that Pollio's library was the censorial archive's descendant.[162]

Livy demonstrates that the *atrium* contained a *tabularium*. Moreover, the building

was expanded by the 194 censors, when work on the *Villa Publica* where census

declarations were given also commenced.[163] These expansions point to an increased

censorial workload and an attendant increase in paperwork production. Indeed, if

space became so tight by the mid first century that the *aedes Nympharum* was

required to store some records during the census period, an association of the *atrium*

with archives is probable.[164] Thus the *atrium Libertatis* was probably the permanent

storage location for the census records following the *lustrum*.

However, while a reasonable amount is known about the *atrium Libertatis*, its

whereabouts is unknown. Ancient writers had no need to describe the location of a

familiar building; no modern scholar has proposed an undisputed site.[165] Thus no

comment can be made on its capacity, but the cumulative effect of the literary

references suggests that there was room to store the census documents.

Nevertheless, it is worth discussing one of the proposed sites. Purcell has suggested

that the *atrium* composed the floors of the 'Tabularium' above the separated lower

corridor, and was the building which stood on the site prior to the fire (fig. 3).[166]

Purcell's argument is intriguing, although he himself admits that it cannot be proved

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[161] Ovid, *Tristia* 3.1.59-72.
[162] Coarelli (1993) 134.
[163] Livy 34.44.5.
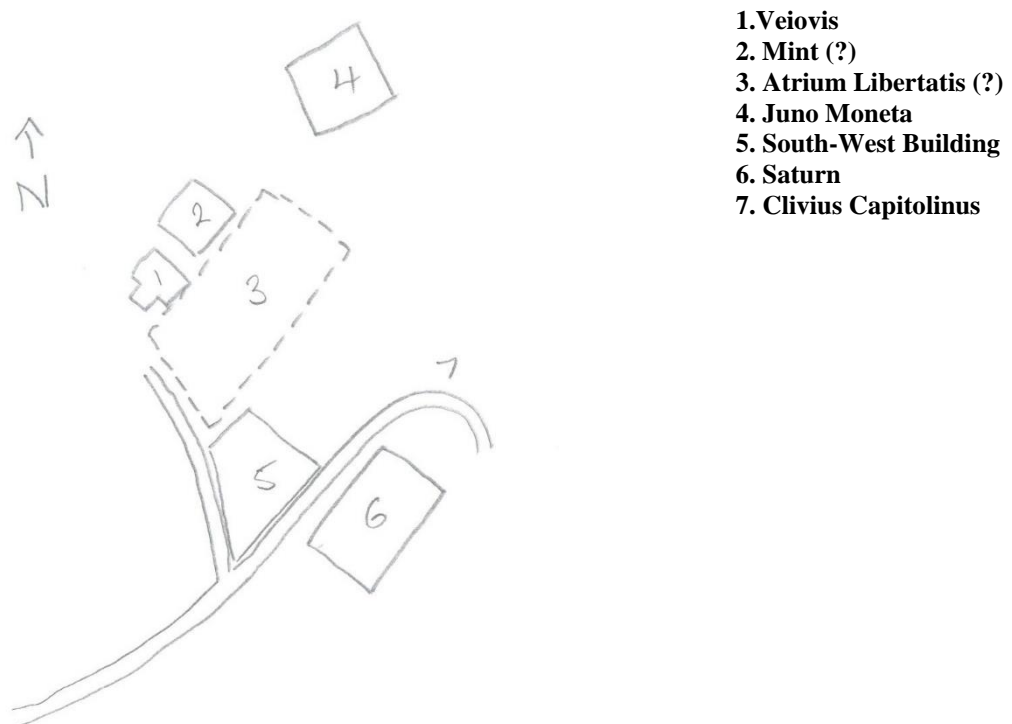[164] The destruction of the *aedes Nympharum* in 57 may have helped spur rebuilding the *atrium Libertatis* on a larger scale.
[165] E.g. Boyd (1915) 3-4; Purcell (1993); Coarelli (2010).
[166] Purcell (1993). Contra esp. Coarelli (2010) 107-32. The author finds Purcell's argument more convincing than Coarelli's reconstruction of a building topped by three temples, but neither is definitive.

one way or the other. Interestingly, Boyd suggested that the library on the Capitol reported by Orosius as struck by lightning during Commodus' reign was an old and venerable one.[167] He does not argue that this library is the 'Tabularium', but if Purcell's identification of the 'Tabularium' with the *atrium Libertatis* is correct it would fit Orosius' description. Rome's oldest library, housed in a building associated with record keeping for centuries beforehand, matches Orosius' description and its destruction would have been noteworthy.

Figure 3: South-eastern Capitol in c. the first quarter of the second century, 2

1. Veiovis
2. Mint (?)
3. Atrium Libertatis (?)
4. Juno Moneta
5. South-West Building
6. Saturn
7. Clivius Capitolinus

The identification of the *atrium Libertatis* with the site of the 'Tabularium' has a more interesting significance for this study. As figure 3 demonstrates, placing the censor's record office between the possible site of the mint and the Temple of Saturn creates a complex of buildings on the Capitol's south-eastern slope all closely associated with administration. Although it is going too far to suggest that this area

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[167] Boyd (1915) 19-20; Orosius 7.16.3.

was a planned administrative centre, the development of these buildings close to one another is unlikely to be purely coincidence. Juno Moneta and her mint were natural allies of Saturn and the treasury; their physical closeness reflects this, as does the possible location of the *porticus Saturni* joining the two across the slope. The SWB was a necessary extension caused by a development in Rome's bureaucracy. The *atrium Libertatis*'s possible location on the site of the 'Tabularium' forms a centre point, just as it was the centre point of Roman citizenship. Censors could easily deposit the list of *aerarii* in the *aerarium*, along with any of the derivative lists stored there. Interaction between the two institutions would not have been limited by physical barriers.

The complex's central nature is also significant from the perspective of military administration. All the buildings in the complex had a link to the military: the temple and treasury of Saturn as the home of the military standards and other spoils; the mint by utilising the spoils; and the *atrium Libertatis* as the home of the census documents which formed Rome's manpower record. Documents from the beginning to the end of military campaigns and military careers were all stored in this area. Both the *atrium Libertatis* and the *aerarium Saturni* provided easy access to the *area Capitolina*, the location of the *dilectus* and official start point of any campaign. Whichever building they were stored in, *tabulae iuniorum* could be quickly taken to the *dilectus* and the legion lists generated there swiftly stored securely. Quaestorial financial accounts, some *commentarii*, and the *senatus consulta* recording the decisions on deployment, collectively recording Rome's military activities, were all held in the *aerarium*. It is wrong to state that Rome had a military archive, but the collective work of these institutions did generate a documentary record which made up a record of Rome's military activity. The buildings which contained it formed a

complex, but due to organic growth rather than deliberate planning. Despite this, it must be concluded that Mid-Republican Rome did have a bureaucratic military organisation.

The building of the locations in which military documents were stored also reveals more about the development of military administration. It is striking that all the rebuilding, expansions, extensions and new foundations discussed in this section occurred in the first quarter of the second century. The censorships of 194 and 174 stand out, but buildings less specifically dated, like the SWB, also belong to this period. This period of building could have several causes; the influx of wealth which accompanied increased operations in the East and in Spain cannot be overlooked. Despite this, the choice to build the types of buildings specifically related to military administration, rather than, for example, temples, points to a specific trigger. The expansion of archival buildings fits with the increased levels of military documentation generated as a result of developments in the Hannibalic War. The regular keeping of legion lists in Rome following 204 would have created extra tablets to be stored, especially as Rome now had more legions in the field each year (see III:ii). The development of the complex on the Capitol's slope is inkeeping with the emerging picture of developing military administration during the Middle Republic.

VI: Record Producers and Record Keepers

The final area to be addressed in this study is who was responsible for producing and storing the proposed documents. Only by examining this final human element can the picture of military administration in the Middle Republic be completed. The very existence of the records demonstrates that they could be produced. This chapter will examine the human element in three sections. Firstly, literacy levels in the Middle Republic will be discussed, demonstrating that there were sufficient individuals capable of reading and writing at the level required by the proposed administration. Secondly, the individuals responsible for creating and caring for these documents both in the field and in Rome will be considered, examining the men who performed clerical roles for generals and quaestors. The section will argue that military tribunes and in particular *scribae* generated the majority of the paperwork associated with the legions, including the legion lists and the documents based on them, pay and performance records. Finally, the third section will examine who was responsible for creating the census documents and their derivatives, especially the *tabulae iuniorum*. Combining the conclusions from these discussions demonstrates that Rome had the clerical capacity to generate and maintain military administration at the levels required by her growing influence, developing the mechanisms in the Middle Republic which would become those known from the Principate.

i: Literacy in the Middle Republic

Plenty of work has been done on ancient literacy levels, reaching conclusions from relatively widespread literacy to levels as low as 1%.[1] This discussion has little to add to such studies as a whole, but it is necessary to establish the place of this thesis on the continuum. This section aims to examine both the literacy level in the Mid-Republican army and the level of literacy required to operate its administrative functions. It will demonstrate that while high level literacy may have been relatively minimal in Mid-Republican Rome, the army needed few to be fully literate; semi-literacy was more important to its functioning.

First, it is worth examining Harris' definitions of literacy in his *Ancient Literacy*. Harris defines 'full literacy' as the ability to read and write complicated text without difficulty. 'Semi-literacy' is a broader category, encompassing anyone who has some ability in either reading or writing, for example simple reading but not writing or at the very lowest only the ability to write their name.[2] As will be seen, the majority serving in the army fell into this semi-literate group. Harris uses two more terms to refer to types of literacy: 'scribal literacy' and 'craftsman's literacy'. Scribal literacy is defined as that of a specialised group literate for administrative purposes, almost a 'civil service' for want of a better term. Craftsman's literacy is when the majority of craftsmen are literate, but women, unskilled labourers and peasants are not.[3] Leaving aside the problem of using the term 'peasant' in the ancient world, the majority of Rome's population were farmers. That this was still true by the late third century is demonstrated by the manpower recruitment problems

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[1] E.g. Best (1966); Harris (1989); Hanson (1991) 159-60; Bowman (1991) 126, (1994) 111-2; Woolf (2009) 46.
[2] Harris (1989) 5.
[3] Harris (1989) 7-8.

during the Hannibalic War due to commitments as farmers and providers for their families.[4] Thus by Harris' definitions, the majority of the population was illiterate, with only a few craftsmen, scribes and the highest class (Harris does not define this, but presumably he means the equestrian centuries and senators) literate.

Such a conclusion, that only the highest in society and dedicated administrators were literate, is not necessarily invalid, but it is better to examine the evidence for literacy than rely on one-size-fits-all models. For example, holding the military tribunate was based, at least in theory, on serving for at least five campaign years.[5] A capable man could, admittedly again in theory, rise through the ranks to hold the position. The office required literacy (see below), and Harris considers it unthinkable that a tribune would be illiterate.[6] Either there were more conditions for the office than Polybius reveals (it is plausible that a higher class, and thus better education, were expected) or complete illiteracy was not as endemic as Harris suggests. Whichever was the case, the question of literacy requires more investigation based on the evidence.

The evidence most discussed concerning literacy in the army is Polybius' description of passing watchwords and checking guard posts in the military digression of book 6 of his *Histories*.[7] Here Polybius describes how watchwords were passed from the tribune through the army on small wooden tablets, *tesserae*. The tribune knew if the watchword had not made it through the camp by the failure of a *tessera* to return. Likewise, those inspecting the watch were issued written orders of when and where to inspect, and collected a *tessera* from the sentries. The tribune was able to tell if a

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[4] See II:v.
[5] Polybius 6.19.1.
[6] Harris (1989) 158-9.
[7] Polybius 6.34.7-12, 6.35.5-36.8.

watchman had been absent or asleep, and who he was, from a missing *tessera* and the marks on those present. These measures demonstrate that written information formed the basis of security procedures, informing the tribunes about who had and had not received important information or performed important functions. The system is a relatively simple one, suggesting that it was introduced early in order to combat camp security problems. Best highlights that Pliny the Elder attributed the origin of the written watchword to the Trojan War, indicating that the method was so old that its origins were lost.[8] If writing was thus an integral part of military procedure, it required some literacy from many members of the army. More significantly, it implies an expectation of literacy from a relatively early period.

Best argued that these passages of Polybius, and Livian examples of orders on *tesserae*,[9] demonstrate a high level of literacy throughout the army. Every man needed to be able to read for passing information in written form to be successful.[10] However, as Harris has highlighted, Polybius's description does not involve all the legionaries.[11] Rather, watchwords were passed from centurion to centurion along to the tribune, with no indication that the watchword was handed round the entire century. Indeed, that the watchword was collected at sunset to be returned to the tribune by full dark suggests that there was not time for it to be passed around each individual.[12] Instead, the best sense to be made of Polybius' description is that the centurions passed the watchword to their century orally once the tablet had moved on, requiring only the centurions and the tribune to be literate. Moreover, while the centurions made an identifying mark on the *tesserae*, it is unlikely this was of any

[8] Pliny, *HN* 7.56.202; Best (1966) 125.
[9] Livy 7.35.1; 9.32.4; 27.46.1; 28.14.7.
[10] Best (1966) 122-7.
[11] Harris (1989) 167.
[12] Polybius 6.34.8, 10.

great length, perhaps their name or their century's designation. The ability to read at most a short sentence and make an identifying mark falls under the category of semi-literacy.

However, this system does not confirm that all centurions were literate. It is possible that it could function so long as someone within the century could read and assist the centurion, a possibility made more plausible by the requirement of witnesses to the transfer of the watchword tablet. Further, Polybius only states that the centurion had to make his mark, ἐπιγραφη.[13] Despite this, the sense of the passage remains that the centurions were semi-literate. The tribune was able to identify where in the camp a watchword was delayed from the ἐπιγραφαι, suggesting that the marks were distinguishable and attributable. Additionally, the precaution of a written watchword indicates an active desire to avoid 'Chinese whispers' mishaps. The witnesses may also have performed this function, but for the written version to have had value semi-literacy was required of those involved in the process. Thus the watchword demonstrates that a high level of literacy was not required among the legions even at the rank of centurion, but nonetheless that semi-literacy was required of centurions.

On the other hand, the description of inspecting the watch suggests that there may have been literacy among all ranks. *Equites* inspected the watch, and the *veles* watchman provided a chit to prove he was awake and present.[14] This spans the army's entire wealth distribution. However, the *equites* may well have been the designated inspectors precisely because their richer background provided a better education, allowing them to read the more complicated written orders issued by the

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[13] Polybius 6.34.12.
[14] Polybius 6.35.5-6, 8.

tribune.[15] This seems to be confirmed by Polybius' assumption that the chosen men would be able to read. Alternatively, as the inspectors appear to have been selected not by lot but individually,[16] it is possible that literate men were sought out. Nevertheless, the choice to regularly use the richer cavalry to inspect the watch indicates an expectation that a reasonable proportion had the requisite literacy skills.

The issue of the *velites* is less certain. As the youngest and poorest members of the army, it might be expected that they were also the least literate. The *tesserae* they gave to the inspector were provided earlier in the evening by the tribune already marked with the watch and post.[17] As the guards were collected for their posts by an *optio* it is unclear whether they read the slip themselves (although this does suggest that *optiones* as well as centurions were semi-literate). It does not demonstrate whether *velites* were expected to be, or were, literate or not. That the *equites* received written orders each night suggests that the inspection order varied, preventing the sentries from anticipating it. The regular nature of the watch meant special written orders were not required for the *velites*, but it does not necessarily follow that the *velites* were incapable of reading them. Those capable of being promoted from the *velites* to another battle line and from higher status backgrounds may well have been semi-, or even fully, literate. The use of *equites* for the inspection indicates an expectation of higher literacy among the richer cavalry, but complete illiteracy amongst even the poorest and lightest armed cannot be assumed.[18]

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[15] Although, as Polly Low (pers. comm.) points out, a system requiring writing could have been developed because equestrians were fully literate. It is probable that each factor reinforced the other as the system developed.

[16] Polybius 6.35.8.

[17] Polybius 6.35.6.

[18] Inscribed lead sling shot may be evidence of literacy lower in the ranks, especially if Greep (1987) 190 is correct in suggesting that shot was manufactured on campaign. They appear to have been a

Again, orders passed by *tesserae* suggest an expectation of some literacy among the soldiery.[19] However, it seems that here as with the watchwords only officers were required to read them. Best states that in 207 the consul Livius addressed his orders to the entire army, although he admits it is unclear whether all could actually read them.[20] The wording is not as clear as Best suggests: Livy simply states that orders were sent through the camp, '*tessera per castra*', probably in the same manner as the watchwords. It was much more convenient to pass the orders to the centuries orally rather than wait for every man in the legion to read them even if everyone was fully literate. Moreover, in all these cases the aim was to avoid using trumpets which could alert the enemy to Roman intentions. Best goes too far in suggesting that the first recorded example of written orders, from the surrounded tribune Decius in the First Samnite War, was to avoid the encircling enemy overhearing verbal commands.[21] If the enemy had been close enough to hear, the tribune's men would already have been overrun. It is implausible that a legion could operate in complete silence, but avoiding using trumpets as in the case of Spain in 185 would prevent a clear signal to the enemy of location and intention.[22] Again it appears that no one below the centurion or the *optio* among the foot was expected to be literate.

Further, it is probable that semi-literacy was all that was required of centurions. Orders which were ordinarily given by bugle call are unlikely to have been very complicated. Indeed, relying on individual subunits to simultaneously follow a complicated series of orders without further prompt, while not impossible, would

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Republican phenomenon in Rome. However, inscriptions were generally cast on shot. While it suggests some literacy, it does not necessarily further demonstrate widespread literacy. For further bibliography see Greep (1987) 190.

[19] Livy 7.35.1; 9.32.4; 27.46.1; 28.14.7.

[20] Livy 27.46.1; Best (1966) 124. Best identifies the wrong consul; Claudius Nero was not yet at the camp.

[21] Livy 7.35.1; Best (1966) 123.

[22] Livy 39.30.4.

have risked a breakdown in the legion's effectiveness. Thus, written orders in place of trumpets probably consisted of a few simple terms with which a semi-literate individual could quickly become familiar, assuming only a basic literacy.

More recent modern scholarship has argued for a higher level of literacy in more strata of society than previously imagined in Rome, especially prior to the second century. Cornell and Langslow in particular have argued for a higher level of literacy based on the epigraphic evidence, especially inscriptions and potsherds.[23] Collecting all extant and attested inscriptions down to c.260, Langslow concludes that the early establishment of an epigraphic habit demonstrates a higher level of literacy.[24] Cornell argues that inscriptions on potsherds from sixth- and fifth-century Latium and Etruria point to literacy beyond their highest classes.[25] This supports the level of literacy argued for above. However, as mentioned, public inscriptions had as much if not more significance as symbols than as pieces of writing.[26] Williamson has demonstrated that inscriptions were rarely placed accessibly, and even when they were the legalese made understanding them difficult.[27] Early public inscriptions demonstrate full literacy early in the Republic, but among their composers not the general population. They are evidence for something more like scribal literacy than a general ability amongst the population.

There are also problems with Cornell's argument. Of graffiti scratched near Rome Cornell asked 'what kind of aristocrat would scratch his name on a tile?'.[28] It is something of an assumption to believe this could not have been the work of the

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[23] Cornell (1991) 25-31; Langslow (2013) 174-8.
[24] Langslow (2013) 176-8.
[25] Cornell (1991) 22-3.
[26] See V:i.
[27] Williamson (1987) 162.
[28] Cornell (1991) 22.

higher classes (perhaps a younger member?) given the human propensity to write names on objects throughout history in all classes, although those lower in society may still be the correct attribution.[29] There is also a more serious point here. Writing a name is evidence only for semi-literacy, not full literacy. At best the graffiti provide evidence for a widespread but limited ability to read and write. However, this is in line with the level of literacy proposed here among the ranks. If the graffiti can be divorced from the highest classes, it supports the notion of more general semi-literacy in Rome from early in the Republic.

In his discussion of literacy in the centurionate under the Principate, Adams argues that complete illiteracy was 'virtually inconceivable' among centurions. He dates this back to Polybius and the second century.[30] Vegetius also stresses the importance of recruiting literate men.[31] The second book of his *De re militari* is notoriously difficult to unpick, with Vegetius mixing elements from the Roman army over several hundred years. Despite this, as the watchword procedure was an old one, it is likely that literacy was an early concern. The process of the Mid-Republican *dilectus* would have made deliberate recruitment for literary skills difficult, but identifying the literate and semi-literate may well have had an effect on rank allocation once the recruited reassembled. However, as shown above, this literacy need not be at a high level. Semi-literacy was enough to fulfil the duties of centurion as set out by Polybius and Livy. As there is no evidence for extensive formal military training in the Middle Republic, it is probable that the majority of men both had and were expected to have these skills before enlistment.

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[29] Cf. Baird & Taylor (2011) 5,7,11; Huntley (2011) 88.
[30] Adams (1999) 126.
[31] Vegetius, *Mil.* 2.19.

Therefore, many soldiers possessed a basic level of literacy capable of dealing with day-to-day written tasks. The watch inspection process demonstrates that a higher level was expected from society's richer members. As it was by and large men from these strata who held magistracies, more complicated administrative tasks were unlikely to fall to those unable to complete them. In a sense (although this strays close to a circular argument), Rome was able to have a military bureaucracy because the skill to create documents existed, thus in the Middle Republic the literary skill existed to create the required military documents. It is impossible to say with the current evidence whether literacy led to the management of the legions in this way or *vice versa*, or indeed if they developed in parallel. Thus Harris' picture of widespread illiteracy is not an adequate description of Rome's general state of literacy. Rather, a state of semi-literacy of varying degrees was the norm for the majority of the male population.

ii: *Scribae*

In previous chapters, examination of military administration has been split into two: on campaign and in Rome. However, in this chapter the nature of Roman magistracies means that it is more illuminating to discuss the office rather than the location of its operation. This section aims to demonstrate that *scribae*, best translated as 'clerks', on the staff of magistrates were responsible for creating many of the documents discussed in the preceding chapters. (The census forms a case apart and will be discussed in VI:iii.) It is often noted that Rome seems to suffer from the lack of evidence for a 'civil service', although the same scholars admit that it is difficult to believe that many of Rome's systems could have functioned without

one.[32] The administration proposed by this thesis sharpens the need for this service,

and the thesis cannot be considered complete without addressing this issue.

Although much work has been done on the roles and appointment of various

apparitores including *scribae*, the majority focuses on the Principate with its wealth

of epigraphic evidence.[33] By the end of the Republic, *scribae* formed an *ordo* of

their own, next in status to the equestrians. They formed a permanent pool of state

employed citizen labour associated in particular with the three *decuriae scribarum* of

the *aerarium*. There is little doubt that the profession had reached this height by the

mid-first century; Cicero was wary of offending the *ordo scribarum* and the earliest

inscription mentioning the *decuriae ab aerario* dates from this period.[34] However,

the evidence for the role and origins of *scribae* in the Middle Republic is much

scantier. In Badian's comprehensive list of known named *scribae* from the

Republic, only five of 28 predate the first century.[35] Despite this, it is possible to

uncover something of the role of *scribae* in the Mid-Republican military sphere.

The earliest known *scriba* is Cn. Flavius. Flavius is noted in the histories because he

became curule aedile in 304, causing upset among some of the establishment.[36]

Importantly, his role as *scriba* is presented by Livy, Piso and Pliny as ordinary; it is

his election to office which is noteworthy. The same is true of the other examples of

Mid-Republican *scribae*. Claudius Glicia was appointed dictator in 249 but forced

to abdicate.[37] The *Periochae* describe him as the worst type of man, indicating that

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[32] Toynbee (1965a) 302-3; Purcell (1983) 132; Harris (1989) 155; in particular the census and recording *senatus consulta.*
[33] On the principate: Mommsen (1893) 383-410; Jones (1949) 38-41; Purcell (1983) 128-9. Purcell (2001) is the main and thorough work on the Republic.
[34] Cicero, *Verr.* 3.184; *CIL* 6.1816.
[35] Badian (1989) 583-5.
[36] Livy 9.46; [Livy], *Periochae* 9; Gellius, *NA* 7.9 = Piso *FRHist* 9 F29; Pliny, *HN* 33.6.17-8.
[37] [Livy], *Periochae* 19.

Livy had little positive to say about Glicia. Of the others on Badian's list, L. Cantilius (a pontifical clerk) was executed for fornicating with a Vestal,[38] Cn. Terentius/ L. Petilius discovered the books of Numa on his land,[39] and C. Cicereius eventually became praetor and celebrated a triumph.[40] Two other unnamed *scribae* were implicated in the trial of L. Scipio.[41] It is the actions or character of the *scribae* which made them noteworthy to historians rather than just their profession, but in each example the position of *scribae* is taken for granted as part of the established order. The possibility of anachronism, particularly in the case of Flavius, cannot be entirely ruled out. Nonetheless, the detail of Flavius' election and magistracy suggest that on balance *scribae* were an established administrative feature by the late fourth century. Although they only occasionally surface in the surviving material, these occasions indicate that they remained an ordinary part of Roman organisation.

That these men were able to fulfil the role at all suggests that they were more than semi-literate. This implies a good education and so a richer (if not necessarily high status) background. Harris suggests that Flavius' rise was based on his ability to take advantage of writing's increasingly important role in Roman administration.[42] This was not the only factor in his rise,[43] but his emergence into the record as the first known *scriba* does point to an increase in the importance of clerks as administration grew more complicated.

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[38] Livy 22.57.3.
[39] Livy 40.29.2-10; Pliny, *HN* 13.84. The sources disagree on the name of this *scriba*, but the majority of modern scholars follow Herrman (1946) in considering Cn. Terentius the correct attribution, cf. Badian (1989) 586; Purcell (2001) 639; Briscoe (2008) 482.
[40] Livy 42.1,7,21; Valerius Maximus 3.5.1, 4.5.3.
[41] Livy 38.55.5-7.
[42] Harris (1989) 155.
[43] An association with Appius Claudius Caecus also played a part, cf. Pliny, *HN* 33.6.17; Massa-Pirault (2001) 108-9

Overall, that *scribae* (or ex-*scribae*) could be magisterial candidates, their relatively wealthy backgrounds, and their first-century status all suggest that they fulfilled an important role in the state which required skill and intelligence. Only free or freed men are known to have held these positions, further emphasising their importance. Moreover, although Mid-Republican *scribae* are not well attested, writers felt it worth noting their profession when they were mentioned. In the case of Cn. Terentius, he could have been described as a client without altering the narrative, and others could have been described as *apparitores*. The emphasis suggests that the position was a significant one. Sulla's *Lex Cornelia de XX Quaestoribus* dealt with *scribae* before other *apparitores*, again suggesting that they had higher status and different treatment.[44] Thus, *scribae* held a relatively high position in society, a reflection of their wealth and skills.

The discussion can now return to a military theme. Badian has highlighted that it is impossible to recreate the organisation of *scribae* before the first century due to a lack of evidence.[45] Therefore, this discussion will not dwell on this issue, beyond suggesting that the organised systems of *III decuriae ab aerario* and the *ordo scribarum* known to Cicero and his contemporaries developed during the second century.[46] However, it is worth examining what might be said concerning the appointment of *scribae* to magistrates and their work in *aerarium*.

Badian stated that only quaestors and aediles are attested as having *scribae* under the Republic, although he also asserted that praetors, consuls and censors must have

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[44] *Lex Cornelia de XX Quaestoribus* (trans. Crawford *et al*. (1996) 293f.) 1.6-11.
[45] Badian (1989) 598.
[46] This is the most that can be said. There is no evidence of these organisations in the third century. A *decuria* is mentioned in connection with Cn. Terentius in 186, although this may be anachronistic (Livy 40.29.10), cf. Purcell (2001) 639.

used them.[47] However, while the majority of the evidence, particularly the epigraphic, focuses on quaestors and aediles, there is evidence that *scribae* were used by more senior magistrates. This leads to a contentious area. There is a school of thought which believes that the more senior magistrates did not have their own *scribae*; instead the consul or praetor leading an army used the *scribae* of his attendant quaestor. It is for this reason, the argument runs, that *scribae* held such a high social status.[48]

Such a view is problematic on several counts. Firstly, the creation of legion lists at the *dilectus* seems impossible on this model. If the consul had recourse only to his quaestor's *scribae*, their presence at the levy could not be guaranteed. The point at which quaestorial *provinciae* were allotted is not entirely clear. Polybius makes no mention of the quaestors being with the legion until he reaches his discussion of pay. It is plausible that the consul could borrow the quaestorial *scribae* before the legion arrayed in the field, but there is no evidence. Alternatively, it is possible that *scribae* from the *aerarium* could be used, especially once a legion list copy was kept in Rome. At some point a duplicate was produced. However, it has been demonstrated that a full list including lines of battle could only have been produced at the first reassembly of the enlisted (II:v). For the smooth functioning of these events, it would have been eminently sensible (although this is no guarantee of reality) for the consul to have his own *scribae*.

More generally, given the amount of documentation suggested in this thesis (legion lists, legion expenses and pay and performance registers) it is unlikely that only two *scribae* were expected to produce and manage the administration of an entire army.

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[47] Badian (1989) 598; cf. Purcell (2001) 647-50.
[48] Badian (1989) 598; contra Jones (1949) 40.

With two legions and attendant allies, plus others in the baggage train, this was somewhere in the region of 20,000 men. Further, both the consul and the quaestor using the same clerks might render redundant the precaution of duplicate book-keeping to guard against corruption. Such a task may well have been devolved to the *scribae*. As the quaestor represented the treasury, the *scribae* on his staff did likewise. The introduction of duplicate book-keeping would have been of no benefit had it been probable that both sets of entries were completed by the same men.

On the other hand, it is possible that consuls had access to secretarial assistance in a different form: military tribunes. Each legion had a complement of six who were responsible for the day-to-day running of the army. Two tribunes led the legion on a monthly rotation.[49] What, then, were the duties of the other four? As Suolahti states, service on the general's personal staff is an obvious solution.[50] There is little doubt that the tribunes were fully literate. As seen above, tribunes wrote detailed instructions for checking the watch.[51] Perhaps a more literate individual was chosen over a less well-educated colleague, but on balance it is unlikely that running the legion, a job with clear need for literacy, would be entrusted to anyone unable to fulfil this requirement. Moreover, Suolahti highlights that all the known Republican military tribunes had a background of at least equestrian status.[52] He argues that the status of the office was originally second only to the consuls; while this declined when other offices were added as Rome grew, the tribunes' importance as army officers remained the same. This is reflected by the presence of senators and consulars as military tribunes at Cannae.[53] As the legions assumed that cavalry were

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[49] Polybius 6.34.3.
[50] Suolahti (1955) 46.
[51] Polybius 6.34.7-36.9.
[52] Suolahtu (1955) 55.
[53] Suolahti (1955) 37-44; Livy 22.49.16.

literate, it follows that men from the same equestrian background were likewise. The relatively high status of *scribae*, from both their financial background and the importance of their position, suggests that such a role with a clerical component was not objectionable to the aspiring elite. It was convenient for a consul to use these well-educated and militarily experienced men as a secretarial staff as part of their duties while they were not commanding the legion.

Military tribunes acting in this capacity provide a possible solution for the difficulties of performing the *dilectus* mentioned above. Polybius' description of the levy suggests that the consuls who would lead the legions were not always present. The selection process centred on the tribunes, allowing for the general's absence.[54] If the military tribunes acted in an official clerical capacity the legion lists could have been created by them, and additions of battle-line made at the reassembly. This removes the need for a *scriba* from the general's staff to be present even if the general himself was not. Further, a clerical role for military tribunes allows them to be involved in keeping the consul's account books. As well as safeguarding against corruption, such involvement would grant those desirous of a political career greater understanding of running a legion. There is no direct evidence, but it is difficult to imagine that a commander would not take advantage of this pool of skilled labour.

There is more to be said concerning *scribae*, however. The military tribunes' assistance in written matters does not demonstrate that consuls and praetors did not have their own *scribae*. Indeed, it might even be considered odd that the consuls did not have a full complement of *apparitores*.[55] The presence and number of lictors, for

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[54] Polybius 6.20.
[55] Cf. Purcell (2001) 648f.

example, was a prominent mark of status for magistrates with *imperium*.[56] The lack

of *scribae*, the highest status *apparitores*, in a consul's retinue seems strange in a

culture where the physical presence of a retinue and clients demonstrated to others

an individual's status and influence. That a consul might have a smaller retinue than

his quaestor, a much more junior magistrate, seems unlikely. Moreover, even if the

military tribunes were involved in written duties, men dedicated to this work without

distraction can only have been beneficial. The military tribunes available each

month would change, breaking continuity, and all had other responsibilities in the

camp.[57] The best conclusion is perhaps that clerical tasks such as creating the legion

lists, writing watchwords and any other written orders were within the normal and

expected arena of the military tribune, but other written work such as account books

was given to *scribae*. Military tribunes had an important clerical role within the

legion, but as part of their command role.

Further, there is evidence of *scribae* attached to magistrates other than quaestors and

aediles. Pliny notes that Cn. Flavius had been the *scriba* of Ap. Claudius Caecus.[58]

Aulus Gellius and Livy, both following Piso, say that he was at the election as a

scriba in the service of an aedile.[59] As Jones points out, the two attributions are not

inconsistent.[60] If *scribae* were already organised into pools of *decuriae*, Flavius

could have been selected to work for them in different years. Even if, as on balance

seems more plausible, this labour pool had not yet been formalised, it is not

surprising to find a skilled *scriba* retained on more than one occasion. The position

held by Caecus when Flavius was his *scriba* is not mentioned. Nonetheless, as

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[56] Livy 1.8.3; Dion. Hal., *Ant. Rom.* 5.74.2.
[57] Polybius 6.19-42.
[58] Pliny, *HN* 33.6.17.
[59] Livy 9.46.2; Gellius, *NA* 7.9.2 with Oakley (2005) 603.
[60] Jones (1949) 38.

Caecus was censor in 312, it is likely that he was of a higher position than aedile when Flavius was his *scriba*.

Flavius is not the only *scriba* who may have been in the service of a high-ranking magistrate. C. Cicereius, who himself became praetor, may have been a consul's *scriba*. Valerius Maximus states that Cicereius was the *scriba* of P. Cornelius Scipio Africanus.[61] Scipio's position at the time is unclear, but, given his swift political rise, consul or proconsul is not an unreasonable assumption. Moreover, Broughton suggests that Valerius is mistaken; the Scipio in question was in fact L. Scipio, Africanus' brother.[62] If Broughton is correct, there is perhaps more which can be learned about Cicereius and Republican *scribae*. During the trials of the Scipiones, two *scribae* were among those on the same charges as L. Scipio, although they were acquitted before Lucius' trial.[63] Once again it is unclear if these men were attached to Scipio or to his quaestor. However, that Livy specifically notes two *scribae* rather than just *scribae* implies that there were more with Lucius' army. As Cicero states that quaestors were attended by two *scribae*,[64] these other unindicted *scribae* were either attached to the quaestor or another magistrate. The general is the obvious candidate. Thus the evidence suggests that consuls did have their own *scribae* on their staff. Cicereius may have been one of these men. It is possible that he was retained as a *scriba* in a personal rather than official capacity after Scipio had held office, but this does not affect the conclusions here; as will be seen the division of public and private is unlikely to have been as strict as the *decuriae* later made it.

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[61] Valerius Maximus 3.5.1, 4.5.3.
[62] Broughton (1951) 406 n.2.
[63] Livy 38.55.5-7. Livy implies that the two *scribae* and an *accensus* were added to the charge sheet in order to emphasise the sense of a conspiracy, presumably because their role would have involved keeping the books which noted the 'bribes'.
[64] Cicero, *Verr.* 2.3.182.

The cases of Flavius and Cicereius may also provide some insight into the organisation of *scribae* prior to the establishment of the *ordo scribarum* and the *III decuriae ab aerario*. In describing both Flavius and Cicereius as *scribae* in association with a particular individual, Pliny and Valerius indicate a current and thus lasting tie to that individual.[65] Flavius' political activities suggest he had a longer association with Caecus than just a year. In the case of Cn. Terentius, the most said is that Q. Petilius, then a praetor, was a quaestor when he first recognised the former's abilities.[66] Cn. Terentius may represent the first evidence of the development of *decuriae*, but with the others he nonetheless demonstrates a principle of scribal organisation. *Scribae* maintained a relationship with a senator beyond a single year. The relationship during the fourth and third centuries may have been more akin to that of the earliest quaestors with their consuls: personal selection by the magistrate creating a relationship more personally charged than the later system of allocation. It is easy to see that greater objectivity from *scribae* would have become increasingly desirable as the Republic and its influence increased, much as it had been with making the quaestor, the state's financial representative, more removed from the general on whom they were to keep a check.

It is possible that the *scribae* of quaestors and aediles are more prominent in the evidence due to the association of these two magistracies with the *aerarium*. By the first century, the *aerarium* had three *decuriae* of clerks associated with it. These *scribae* had a permanent role in the treasury undertaking the treasury's business, overseen by the quaestors of that year.[67] Cato the Younger was able to prevent a corrupt *scriba* from working under him, but not remove him from the *decuriae*

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[65] Pliny, *HN* 33.6.17 – *ipse scriba Appi Caeci*; Valerius Maximus 4.5.3 – *scribam C. Cicereium.*
[66] Livy 40.29.2-10.
[67] Plutarch, *Cato Min.* 16.

entirely.[68]   It is unclear exactly when this system came into being, but something

must be said regarding the organisation of the *aerarium* prior to the establishment of

the *decuriae*.

The development of the permanent *decuriae ab aerario* indicates a need for a

permanent clerical staff in the *aerarium*. This in turn implies a substantial amount of

paperwork, especially as the *aerarium* did not just deal with military documents, but

financial papers and *senatus consulta*. Such a quantity of work, in composing,

copying and archiving, required a skilled staff before it reached the volumes of the

Late Republic. Who, then, were these individuals? The most obvious answer is that

they were the *scribae* on the staff of the supervising quaestors. If scholars are

correct in supposing that the number of quaestors was increased to eight in 267,[69]

this may be the point at which two urban quaestors were appointed. Such a

development implies an increasing volume of work to be undertaken by the *aerarium*

even before the major military expansions of the late third and second centuries.

Even if the entire *aerarium* staff consisted of the quaestor and his two *scribae*,

doubling this was a significant increase in the manpower available. Further, in the

earlier period of the Middle Republic when campaigns were largely limited to the

summer months the *scribae* of other quaestors may have been available for use in the

aerarium during the winter.[70] Indeed, as the return of armies and their documents

probably occasioned more work in the *aerarium* through the updating of various

military and financial records, having the men on hand who had created the

documents on campaign would have been an advantage.

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[68] Purcell (2001) 654.
[69] E.g. Harris (1976); Erdkamp (2007) 107.
[70] Providing that the *scribae* themselves did not need to return home to farm.

It is possible that urban quaestors may have chosen their *scribae* for the year from those experienced at working in the *aerarium*, creating a *de facto* permanent staff which eventually became the *decuriae ab aerario*. Cato the Younger's struggles demonstrate that the quaestor's duties could be overwhelming for a young magistrate in the Late Republic without considerable preparation.[71] On the other hand, in the Middle Republic a new quaestor may well have served as a military tribune during his required military service. This would have given him some experience of accounting, even if not to the level required for the *aerarium*. Nonetheless, the presence of at least one experienced *scriba* on his staff would be a great help to a quaestor taking on the *aerarium*.

The quaestors may not have been the only magistrates who could bring *scribae* to the *aerarium*. Livy records that in 202 the *scribae* of curule aedile L. Licinius Lucullus were caught stealing from the *aerarium*.[72] It is possible that this treasury is the otherwise unknown aediles' treasury mentioned by Polybius.[73] However, Livy gives no indication that this *aerarium* was different to the *aerarium Saturni*. On the assumption that this is the *aerarium Saturni*, the theft suggests that the curule aediles' *scribae* assisted with treasury work. Livy presents the theft as timed with the games given by the aediles, indicating that the *scribae* perhaps hoped that the loss of the extra funds would go unnoticed at a time of great expenditure.[74] More significantly, it suggests the *scribae* had easy access to the *aerarium*. It appears, therefore, that quaestorial *scribae* were not necessarily the only *scribae* employed in the *aerarium*.

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[71] Plutarch, *Cato Min.* 16.
[72] Livy 30.39.7.
[73] Polybius 3.21-26.
[74] Livy 30.39.6.

The growing importance of *scribae* during the Middle Republic is reflected in the granting of a Temple of Minerva to them as a quasi-headquarters in 207. Festus mentions this dedication alongside an explanation of the term *scriba*, which he asserts had not yet separated into *librarius* ('copyist') and *poeta* ('poet') but covered both.[75] The gift of a temple indicates that clerical roles were increasingly valued, answering a need closely related to the army's organisation and recording manpower. However, this aspect is often overlooked in favour of the *poetae* due to the dedication's connection with Livius Andronicus. Andronicus' dates are disputed, but it is unlikely he lived to 207.[76] Rather, he was probably tutor to M. Livius Salinator (cos. 207), having been enslaved by Livius senior in 272 at the fall of Tarrentum. If Andronicus was a *scriba*, rather than specifically a *poeta*, it is possible that he worked in the role's more practical side following his emancipation sometime between 272 and 250. M. Livius senior served as decemvir in 236 and may have been an ambassador to Carthage in 218.[77] While these offices did not officially have *apparitores*, it has been shown that *scribae* had a closer personal relationship with their magistrates prior to the *decuriae*. Therefore, Andronicus could have performed a secretarial role for M. Livius, even if he was not a *scriba* as an *apparitor*. The lack of distinction between clerk and poet in the language indicates that this distinction was yet to develop. Thus the Temple of Minerva was for all those who employed written skills professionally, encompassing the *scribae* dealing with military administration.[78]

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[75] Festus 446-7 L with Purcell (2001) 644.
[76] Mattingly (1957) 161-2; contra in part Beare (1940) 12-5.
[77] Livy 21.18.1 with Beare (1940) 14; Broughton (1951) 223.
[78] This gathering and collective consideration of *scribae* may have been the first step towards the *ordo scribarum*.

Thus *scribae* serving on magisterial staff, both in Rome and in the field, carried the bulk of the responsibility for producing, maintaining and preserving the administration which documented the organisation of Rome's army. Within the legion itself, the military tribune carried some of this burden, particularly during legion formation. It was on the legion lists that the rest of military administration undertaken by *scribae* in the field, especially pay and performance registers, were based. As the Middle Republic progressed and Rome expanded her influence and military activity, this clerical role became increasingly crucial, as the increased number of quaestors illustrates. By the middle of the Hannibalic War, the importance of a dedicated professional literate class, although perhaps alien to the Roman aristocratic ethos of unpaid service, was recognised and began to develop into the more recognisable form found under the Principate. The *scribae* both assisted the development of Rome's military ambition and were made necessary by it.

iii: Recording the census

The ancient evidence for recording the census during the Middle Republic is both scanty and apparently contradictory. Despite this, it is necessary to investigate who created and maintained the census, the central record of military manpower. This section will examine the state of the evidence concerning this problem in order to suggest possible solutions.

A central point is whether the census roll was only updated every five years during the census, or if a permanent staff was housed in the *atrium Libertatis* to make yearly alterations. The latter is attractive to several scholars, who argue that deaths and the movement of men through different age groups needed to be noted to keep

the record of manpower up to date.[79] This conclusion has its merits: the Roman concern for manpower and accurate recording as well as political need suggests such a system was desirable; and, more significantly here, failure to update the age classes could have denied Rome access to her youngest and fittest citizens if they turned 17 between *lustra*. However, no modern scholar has produced evidence to support this hypothesis. This discussion hopes to demonstrate that it does not find support in the surviving evidence.

It is worth beginning with the only *scribae* yet to be discussed, those of the censors. The censorship is the other high magistracy with evidence of accompanying *scribae*. Livy states that at the establishment of dedicated censors in 443, it was decreed that they have *scribae* to assist them with their work.[80] These censorial *scribae* are otherwise absent from the record of the Republic apart from Varro's passing notice of their involvement in closing the *lustrum*.[81] Particularly striking is Livy's failure to mention them during the cessation of the 169 census.[82] Nevertheless, something can be gleaned concerning the role of the *scribae* from these brief mentions. Firstly, the two passages in combination demonstrate the importance of *scribae* to the census process. They were involved from the outset, and received purification alongside the censors and other magistrates to take part in the *lustrum* ceremony.[83] Secondly, Livy indicates that the written aspect of the census, turning spoken declarations into physical records, was always a key part of the censors' work. Such work on this scale required the support of skilled clerks, a need recognised from the very beginning. Coupled with their involvement in closing the *lustrum*, the evidence

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[79] Bourne (1952) 133; Toynbee (1965a) 302, 449; Hin (2008) 214-8.
[80] Livy 4.8.4.
[81] Varro, *Ling.* 6.87.
[82] Livy 43.16.13.
[83] Varro, *Ling.* 6.87 – *censor<es> scribae magistratus murra ungentisque ungentur.*

indicates that *scribae* had a crucial role in the census, a role recognised and honoured by the state. Such a prominent position leaves little doubt that they were involved in the census process throughout the Republic despite a lack of other evidence.

It must then be questioned what role the *scribae* performed, as they are not found elsewhere in census descriptions. The answer may be a simple one. It can be inferred from Livy that the *scribae* were initially engaged to assist the censors to record the oral declarations of Rome's *patresfamilias*. It is well established that census declarations were given to officials known as *iuratores*.[84] These were free men, like all known *scribae*, who assisted the censors in just the manner described. In the Ahenobarbus Relief, the man to the far left listening to the toga-clad citizen's declaration is also recording it on a large *tabula*.[85] He wears a toga, indicating that he too is a citizen. It is possible that he depicts the censor himself, but he is commonly identified as a *iurator*.[86] The *iurator* needed to be fully literate to record the new declaration as well as read that of the previous census and make any necessary changes. Whether that happened at the point of declaration or at a later stage of compilation is not important here. Thus the role of the *scriba* and *iurator* appear to overlap entirely; indeed the desirable qualities were the same in both.

However, the possibility that these were discrete positions must be addressed. It is not implausible that the *paterfamilias* made his declaration to one man but it was recorded by another. Livy's description of the censorship's beginning suggests that the *scribae* were to record declarations, but it is less clear whether they were addressed when the declaration was given. The censors themselves fit this role

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[84] Livy 39.44.2; Cicero, *Leg.* 3.7; e.g. Mommsen (1894) 37-8; Suolahti (1963) 34; Northwood (2008) 258.
[85] See V:I n.42.
[86] E.g. Nicolet (1980) 87; Torelli (1982) 10.

better. On the other hand, if the *scriba* and the *iurator* were not the same man, who is the *paterfamilias* in the Ahenobarbus Relief addressing? On this hypothesis, the seated figure must be the *scriba*. Given the *iurator*'s presence over *scribae* in written sources, it would be surprising if the relief's designer not only gave the recorder a more prominent role than the *iurator* by placing him in the foreground, but omitted the *iurator* entirely. Moreover, the *paterfamilias* appears to be addressing the seated figure. Coupled with the failure of extant sources to mention *scribae* and *iuratores* together, the relief suggests that the two were the same.

If the *iuratores* and *scribae* were one and the same, it is likely that each censor had more than two *scribae*. This need not be a problem, however. Cicero only states that quaestors had two *scribae* each.[87] Other magistracies are not mentioned. In the case of censors in particular it is likely they could employ as many men in this role as necessary for the census' timely completion. For example, they were able to send legates to the legions in 204.[88] As discussed (III:ii), this was unprecedented but evidently within their power. There is no evidence of a set number of *iuratores*; this does not mean that there was no customary figure, but does suggest a flexibility allowing the censors to fulfil their duties unhindered by a lack of manpower.

The *scribae*/*iuratores* provide an insight into keeping census records. Both *scribae* generally and *iuratores* in the census were only present in the retinue of a magistrate for the period of office. They ceased to have responsibility for the census documents following their ritual deposition. Mid-Republican *scribae* had a connection to the individual rather than the magistracy; *iuratores* had no declarations to record once the *lustrum* closed. Thus these clerks were no longer in the service of either censor

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[87] Cicero, *Verr.* 2.3.182.
[88] Livy 29.37.5-6.

or census. This suggests that there was no one available to make any changes to the census between *lustra*, providing an obstacle to the opinion that there 'must' have been a permanent clerical staff keeping the census updated.

Livy's description of the census disruption in 169 may, however, overcome this obstacle. Livy states that during the disruption the censors closed the *atrium Libertatis*, sending away the public slaves who were present there.[89] Livy makes no mention of *scribae* or *iuratores*, but closing the *atrium* nonetheless suspended the census' operation. This suggests that it was the public slaves who were responsible for collating the declarations taken by *iuratores* into the completed census list. Further, slaves could not be dismissed for five years until their service was required again. This does not rule out the slaves having alternative employment between *lustra*, nor does it prevent a new group of slaves being used in the future; literacy was the only essential skill. Nonetheless, it suggests an available pool of labour familiar with the operation of the census and the archives themselves who could be used to make the necessary changes to keep the census documents up-to-date. If the public slaves were used in this way, then continuous work on the census could have occurred.

However, there are several problems with this conclusion. Chief of these is Livy's failure to mention the *scribae/iuratores*.

> *censores extemplo in atrium Libertatis escenderunt et ibi obsignatis tabellis publicis clausoque tabulario et dimissis servis publicis negarunt se prius quidquam publici negotii gesturos, quam iudicium populi de se factum esset.* (Livy 43.16.13)

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[89] Livy 43.16.13.

> At once the censors went up to the *atrium Libertatis* and there having sealed
> the public tablets and closed the record room and dismissed the public slaves
> they refused to do any work of public business until the judgment of the
> people concerning themselves had been made.

The passage is specifically concerned with the *atrium Libertatis* itself. The censors were able to suspend their public business by closing the archive room and the tablets holding census information. The *iuratores* were presumably absent because their work was conducted at the *Villa Publica* on the *campus Martius*. It is probably from there that the censors 'went up' to the *atrium*. The most probable explanation for the lack of *iuratores* is that they were dismissed before the censors proceeded to close the *atrium*. Even if the declarations themselves were temporarily stored in the *Villa Publica* (or the *aedes Nympharum* if it yet existed), closing the *atrium* with its archive prevented the compilation of the full census document, thus suspending the censors' work. Livy's account does not demonstrate that public slaves were responsible for writing documents, only that they were present in the building.

What, then, was the role of the public slaves? Suolahti and Briscoe have followed without comment Mommsen's assertion that the slaves were responsible for all the census work.[90] However, the only evidence they provide is this very passage. It is possible that the slaves formed a permanent staff in the *atrium Libertatis*, but one of caretakers rather than clerks is more likely. Mouritsen points out that slaves and freedmen were not used by Rome in any recorded military capacity.[91] The 8000 slaves who served in the Hannibalic War (eventually earning their freedom) stand out as an exception to this.[92] It is possible that this prohibition extended to creating

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[90] Mommsen (1893) 337; Suolahti (1963) 34; Briscoe (2012) 445.
[91] Mouritsen (2011) 73.
[92] Livy 22.57.11; 24.34.3-9.

Rome's manpower register (see III:i). More significantly, slaves were manumitted through inclusion in the census.[93] Buckland argued that this was a recognition of free status by registration in a list of citizens not itself an act of manumission: 'the censor is recording the fact that the man is a *civis*, not making him one'.[94] It is highly unlikely that the compilation of a list which could in effect grant a slave his freedom would be entrusted to him.[95] It is always the censor who is mentioned as noting manumission, but the prior considerations suggest that allowing slaves a clerical role in the census was potentially worrying.

The importance of having citizen *scribae/iuratores* emphasises the distinction between the permitted roles of slave and free. The census was of central importance the state's organisation, both politically and militarily. The use of only free and freedmen in clerical administrative roles functioned as a precaution against involving those without a stake in Rome in sensitive work. Livy mentions the public slaves in the *atrium Libertatis* because they performed a caretaking role, perhaps moving documents from the *campus Martius* to the *atrium* as part of this role. Dismissing the public slaves was for the censors a symbolic as well as practical act of ceasing operations on the same level as sealing the tablets and closing the archive.

Such a division between free clerks and slave caretakers is evident later in the Republic. It is not unproblematic to use evidence of a later period, but it is plausible that this period's arrangements originated earlier. Houston highlights that Cicero did not have a slave dedicated to working with his library. Instead, the slaves who cared for his library also had other tasks about the house. His friend Atticus did have such

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[93] Cf. Buckland (1908) 440.
[94] Buckland (1908) 441, followed by Mouritsen (2011) 11.
[95] Cf. Mouritsen (2011) 20-21 on negative attitudes towards slaves.

slaves, but these were *librarii* ('copyists') rather than *scribae* ('clerks').[96] Cicero

refers to Atticus' library slaves as *librarioli*, 'little copyists'. These slaves had the

skills of archivists; Cicero borrowed them for tasks including mending damaged

works. However, there is no indication that these slaves performed any of the tasks

associated with Mid-Republican *scribae*. Cicero engaged a free scholar to organise

his library.[97] This labour division suggests that, here as with the *atrium Libertatis*, it

was free men who were considered skilled and responsible for organising and

creating documents, while slaves were considered suitable caretakers.[98] The tasks

undertaken by the *librarioli* do suggest, however, that 'caretakers' were trusted to

work with documents for the purposes of preservation. This tallies with the apparent

role of the *atrium Libertatis*'s public slaves.

Perhaps more significantly, Houston suggests that after its rebuilding in 28 the

atrium Libertatis was staffed by public slaves.[99] Unlike many libraries formed under

Augustus, the *atrium* was not part of Augustus' household.[100] Other libraries were

staffed by Augustus' household slaves, as would be expected of his property.[101]

However, the *atrium* was a rebuilt public building, as well as the first such library.

A staff of public slaves would be expected. If the Augustan *atrium* was staffed in

this manner, it may well have been carried over from the Republican operation. As

librarians or archivists, these slaves were not responsible for the generation of

content, only its preservation, a role which could include copying.[102] It is probable

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[96] Cicero, *Att.* 4.4a.1; Houston (2002) 141-2, 147.
[97] Cicero, *Att.* 4.8.2, *Q. Fr.* 3.4.5.
[98] Tiro stands out as a counter example, but he had a close and lasting relationship with Cicero. Neither the slaves who mended Cicero's books nor the public slaves of the *atrium Libertatis* had such a relationship with their presiding citizens.
[99] Houston (2002) 157.
[100] Pliny, *HN* 7.30.115.
[101] *CIL* 6.4435, 6.8679, 14.196.
[102] Cf. Purcell (2001) 641f.

that Mid-Republican public slaves engaged in the *atrium Libertatis* had a similar role and should be equated with Atticus' *librarii*.

It remains possible, however, that slaves were involved in the census in a more clerical fashion but are not found in the sources because the ancient authors assumed their readers were familiar with their role. The lack of evidence for either position means it is not possible to be conclusive. It is possible, for example, that *iuratores* were a screen, with unmentioned slaves doing the actual clerical work.[103] However, there are several objections. It was demonstrated above that a citizen, most probably holding the position of *scriba*/*iurator*, recorded the declaration of a *paterfamilias*. The clear depiction of a citizen recorder on the Ahenobarbus Relief should also not be overlooked in favour of unattested slave *scribae*. Moreover, the inclusion of *scribae* in closing the *lustrum* alongside senior magistrates suggests that they had a major role.[104] All the extant evidence for the role of the free citizen *scriba*/*iurator* coupled with the known role of later slave *librarii* in archives is more persuasive than the unattested possibility of slave *scribae*.

Aside from the censorial staff, there is other evidence to suggest that the census was not updated between *lustra*. Firstly, the nature of the *lustrum* itself: as has already been discussed (III:iii), closing the *lustrum* was a solemn event in which the physical embodiment of the citizen/non-citizen divide was enshrined. It seems implausible that following this ceremony changes to the census list could be made without the supervising authority of the censors. Moreover, as the public slaves were the only permanent staff at the *atrium Libertatis*, the same objections to their involvement in this process apply, if not more so due to the lack of a magisterial overseer. Quite

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[103] Andrew Fear (pers. comm.).
[104] Varro, *Ling.* 6.87.

when changes made by the censors came into effect during the census period has been debated, but they were certainly in force following the *lustrum* ceremony.[105] During the census period changes were enacted through the moral power of a censor elected to his authority by the people; it is improbable that they could be rendered by an unelected inferior, let alone a slave, at other times. This lack of an authority figure between the sacred dedications of *lustra* suggests that the lists were not updated between censorial magisterial periods.

Secondly, the emergency levy, the *tumultus*, suggests the same. The necessity of holding a *tumultus* indicates that, aside from a state of emergency, the lists held by the senate were not entirely accurate. As discussed previously (IV:iii), if Rome wished to mobilise all those of fighting fitness, a *tumultus*, not lists generated from the census, was the way to achieve this. This overcame any weaknesses in census taking, including any changes which had occurred since the most recent census. Thus, the use of *tumultus* in the Middle Republic contributes to a picture of census lists which were not entirely accurate.

Thirdly, the gap between census periods. Suolahti suggests that holding the census every five years became an established custom because after five years the previous list became unworkable for organising military and political matters.[106] He does not provide any evidence to support this hypothesis, but it is plausible. Dionysius of Halicarnassus explicitly states that the census declaration included the ages of children.[107] The *Tabula Heracleensis* also states that the names of all in the family are to be given.[108] As Northwood points out, the inclusion of ages allowed the list to

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[105] E.g. Buckland (1908) 441.
[106] Suolahti (1963) 32.
[107] Dion. Hal., *Ant. Rom.* 5.75.5.
[108] *Tabula Heracleensis* ll.146-7.

operate over the five years until the next census.[109] Recording citizen ages indicates

that it was possible for the state to update lists generated from the census such as the

tabulae iuniorum. More importantly, Dionysius' emphasis on recording the ages of

children, not just adults for the correct distribution into age classes, indicates that

accurate *tabulae iuniorum* were a consideration of the censors. Dionysius wrote at

the end of the first century, a period in which army recruitment had all but ceased to

be based on Polybius' *dilectus*. That he records the inclusion of ages in the census

suggests that this was carried over from an earlier period. The same can be said of

the *Tabula Heracleensis* (III:i). Thus it appears that recording children's ages in the

census was a deliberate act aimed, at least in part, at allowing into the *iuniores* men

who turned 17 between *lustra*. It follows that movement into the *seniores* and *senes*

could also be calculated.

The chapter can now move towards a conclusion. The census records were

generated during the census period under the censors' authority. The declarations of

patresfamilias were recorded by *iuratores*, who were in all likelihood the *scribae*

allotted to the censors among their *apparitores*. These declarations were collated

into the final census roll, essentially an updated version of the previous census list.

The completed list was ritually deposited in the *atrium Libertatis* in a procession

where *scribae* held an honoured place. Following the closure of the *lustrum*, the lists

stored in the *atrium Libertatis* under the care of public slaves could not be altered.

However, they still provided the information required to keep the state functioning

relatively efficiently. The census records themselves could not be altered, but it was

possible to generate up-to-date *tabulae iuniorum* each year for the *dilectus*. This

arrangement ensured that the religious strictures surrounding the census were

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[109] Northwood (2008) 258.

adhered to, but the lists remained secularly workable. Coupled with the legion lists generated by military tribunes at the levy, and records of citizen/soldier pay and performance kept by the quaestor and his *scribae* on campaign based on the legion lists, it was possible to understand the full state of Rome's military power using these documents, excluding only those who had failed to register in the census.

It is only possible to speculate on who generated these derivative lists, particularly the *tabulae iuniorum*, from the census each year. It is possible that the public slaves were permitted to do this work under instruction from the senate. It does not appear that later slaves maintaining libraries and archives performed similar work, but absence of evidence is not evidence of absence. Alternatively, the *scribae* who attended the consuls may have been responsible for drawing up the *tabulae iuniorum*. If these *scribae* were chosen around the time of the consular elections, they had several months to draw up the lists before the senate made decisions about recruitment and deployment. On balance, because the *scribae* were free citizens and known to be skilled at drafting documents, it is more plausible that the consuls' *scribae* were responsible for generating the *tabulae iuniorum*.

Thus, the organisation of the Roman state and military provided the means for generating the military records proposed in this thesis. In the Middle Republic this had yet to become the organised clerical system known from the first century and the Principate. Nonetheless, throughout the Middle Republic Rome was able to utilise the abilities of the fully literate in order to manage her armies. This came both in the form of professional or semi-professional clerks, the *scribae*, but also from an assumption of some literacy in all her serving citizens. For those from the higher classes, consuls, quaestors, cavalry and military tribunes, this assumption was of full literacy, but even for the rank and file semi-literacy was expected. This ability both

fuelled the growth and complexity of the empire as its legions and their scope grew and was in turn made necessary by it. As the growth of the number of literate figures and the increased recognition of them by the end of the third century demonstrates, the Mid-Republican army was increasingly fuelled by bureaucracy.

VII: The Development of Military Administration in the Middle Republic

The foregoing discussion has demonstrated that the development of Roman military administration into the complex systems attested by surviving Imperial documentation cannot be attributed to the military reforms of Augustus. Rather, military bureaucracy developed in tandem with the expansion of Rome's martial activity across the Mediterranean. As the scale and scope of these campaigns increased, the methods and mechanisms of bureaucracy grew and changed to take in these new requirements. Operational and administrative abilities developed through a process of mutual reinforcement. This process is particularly recognisable in the changes in Rome's power, influence and operations which occurred during the Middle Republic. The development from the fourth century to the mid-second will now be summarised.

The evolution of military administration had its origins in the initial establishment of the census as a record of manpower, traditionally attributed to Servius Tullius.[1] By the mid-fifth century this document had become important enough for the senate to create a magistracy, the censorship, whose sole duty was its upkeep.[2] However, it is only with the Middle Republic that the more detailed nature of this administration becomes apparent. The Roman army familiar to Polybius, made up of legions with four lines of battle, had emerged by the mid-fourth century.[3] It is in the late fourth century that *scribae*, clerks, first appear in the works of ancient authors as though they are already well established.[4] This indicates the emergence of a system of

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[1] Livy 1.42.5-44.3.
[2] Livy 4.8.2-4.
[3] Livy 8.8.3-14 with Gilliver (1999) 15.
[4] Livy 9.46; [Livy], *Periochae* 9; Gellius, *NA* 7.9; Pliny, *HN* 33.6.17-8. See VI:ii.

documentation and bureaucrats supporting the state's leadership. As one of the major functions of this leadership was martial, it is unsurprising that military administration also becomes more apparent from this period. At some point during the fourth century there was a change from the simpler phalanx-like army to the more complex manipular legions, necessitating more organisation behind the scenes. With the added complexity of regular pay in the form of compensation for personal outlay,[5] the requirement for some type of administration only became greater. It is unsurprising that it was when all these elements coalesced that bureaucracy became a necessary feature of military operations. It is precisely the development of this administration from its humble origins that can be seen throughout the Middle Republic from the late fourth century.

In the third century, as throughout the Republic, the census remained the central document key to military administration. These records were compiled during the eighteen-month census period from the declarations of each *paterfamilias* given to the censors or their assistants.[6] Following the ritual *lustrum* ceremony at the end of the census period, these records were then stored in the *atrium Libertatis* on the Capitoline (the 'headquarters' of the censors for lack of a better term) under the care of public slaves.[7] From the census records the *tabulae iuniorum* could be generated each year.[8] Each *tabula* contained a tribal list of all those liable and able to serve in the legions. Anyone exempt from the levy, for reasons such as injury, *emerita stipendia* or agricultural labour requirement, was not included on the *tabulae iuniorum* as the exemption was granted by the censors during their work.[9] The

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[5] See IV:ii.
[6] See III:i.
[7] See V:iii and VI:iii.
[8] See VI:iii.
[9] See II:iv.

expedient of including the ages of all those declared on the census allowed new *tabulae* to be generated each year without requiring an entire new census or emendations to the ritually deposited version.[10] The ability of the consuls to grant an exemption at the point of the levy meant that any shortcomings in the census process, such as a citizen reaching *emerita stipendia* between census periods, could be overcome.[11]

Short campaigns dominated the late fourth and early third centuries, resulting in a relative ease of administration. It was rare for a citizen to be away from Rome for long enough to miss the eighteen-month census period; registration by *paterfamilias* approximately halved the number overlooked in this event.[12] Pay records, based on legion lists generated at the *dilectus*, dealt with a fixed army contingent for little more than a year.[13] Outside the First Punic War, reinforcement is absent from the extant record before the Hannibalic War. The complications arising from four different battle-lines and replacing lost equipment resulted in a unique record for each individual, but the shorter campaigns would naturally have resulted in much less differentiation than might later be found in the service records of men serving continuously for six or more years.[14] In the late fourth and early third centuries, shorter campaigns and smaller armies suggest that it was unlikely that Polybius' maximum service term of six years would be met unless voluntarily.[15] In all, the nature of warfare in this period required much less in the way of complex and parallel administration between the legion in the field and Rome. The usual return of consuls and their armies to the city with the legion lists at the end of the years

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[10] See VI:iii.
[11] See II:v.
[12] See III:ii.
[13] See IV:ii.
[14] See II:iii.
[15] Polybius 6.19.2.

allowed Rome to remain the administrative hub of the military with relative ease. Carrying documentation with the campaigning forces was necessary for successful tactical operation, but it remained fully reliant on the hub to which it ordinarily returned yearly. The regular contact between Rome and her legions did not require the parallel systems later developed to keep both parties as up-to-date as possible.

The system developed by the late fourth century continued to operate into the late third century as the built-in safety measures absorbed the pressures of Rome's military ambitions during this century without effects significant enough to emerge in the historical record.[16] However, the changes to the scale and scope of Roman warfare wrought by Hannibal's invasion of Italy forced these administrative mechanisms to develop in order to continue the efficient application of Rome's military power. The systems of the fourth and earlier third centuries remained in place, but additions and changes were made. In 204 the censors were forced to act more proactively as completing an accurate census had become almost impossible.[17] The dispatch of legates by the censors to the legions in this year highlights that while the senate may have known how many legions were in the field and their approximate standing strengths, they did not know who made up the legions. It is probable that it was the need for this mission which resulted in copies of the legion lists being kept in Rome as well as with the legions. Censors could then cross-check those missing from the current census with those on service, allowing the census to be more accurately maintained.[18] As the central record of Rome's manpower the

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[16] It is possible that there were changes recorded by Livy in his lost second decade. However, the processes apparent during the Hannibalic War do not appear different in any substantial way to those of a century previously.
[17] Livy 29.37.5f.
[18] VI:iii.

census remained key to military administration, developing to cope with the new demands of extended campaigns further afield.

The changes heralded by Hannibal also made the service term limits more significant as longer service became much more likely. The effect of this pressure was ultimately realised in 169 when the censors introduced a new oath which implied that enlistment was regarded as tantamount to embarking on a campaign which would last for Polybius' entire normal service term.[19] In a sense, this was a simplification of the system. It perhaps suggests that it was no longer necessary to record years served, only whether a man had served or not, in order to prevent extra, potentially aggravating, calls on citizen-soldiers. On the other hand, as service terms remained, at least in theory, the qualification for holding a magistracy, it is probable that some mark of years served remained in the census declaration.[20] More importantly, the development of 169, which appears to confirm an existing reality in second-century Spain at least, demonstrates that Rome understood that overly long service terms, especially continuous service, could potentially cause mutinous behaviour. Such behaviour was detrimental to military effectiveness and thus to be avoided. The censors' actions demonstrate that this problem was actively worked against.[21]

Such concerns can also be seen in the final major change to occur as a consequence of the war in the late third century. As longer campaigns became the norm, so did the changing of commanders. This was not unheard of in the third century, but became almost a yearly occurrence in the second century.[22] When new commanders

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[19] Livy 43.14.5-6.
[20] Polybius 6.19.4.
[21] See IV:ii.
[22] Demonstrated by Livy's yearly lists of appointments and commands, e.g. 39.45.1-8.

took their place they conducted a *lustrum*, a military review. This informed the incoming general of the full extent of his new command, rectifying any mistakes in enumeration. This demonstrates recognition of human fallibility: however conscientious the administration of the army, extended periods in the field could lead to errors. The *lustrum* acted as a safety net, catching these mistakes. It indicates that maintaining accurate information on the army was a priority.[23]

The wider use of strategies such as a new commander's *lustrum*, coupled with the introduction of procedures like keeping a legion list in Rome indicate that the Romans had an active desire to keep their armies as efficient as possible. It may have been conservative in nature, but the senate was also pragmatic, developing the administrative mechanisms in order to account for the pressures caused by longer campaigns further afield. Development was piecemeal, and relatively slow, but nonetheless present. That these developments of the late third and second centuries took place at all demonstrates both the importance of administration to the function of the Roman military and, more significantly, Rome's recognition of this importance. The organisation of the Mid-Republican military was not *ad hoc* confusion, but a gradually developing system of some complexity.

To summarise, then, by the mid-second century Roman military administration had reached its zenith in the Republic. The census formed the central document, containing for its military purposes: a record of Rome's men, their ages, property qualification, service record and any exemptions. This document was compiled from *paterfamilias* declarations recorded by the censors and their subordinates and cared for after completion by public slaves in the *atrium Libertatis*. Each year *tabulae*

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[23] See IV:iii.

iuniorum were generated from it, probably by *scribae* attached to the generals. Under the senate's instruction, military tribunes (for new legions) or consuls (for reinforcements) used these *tabulae iuniorum* to perform the *dilectus*, the military levy. Legion or unit lists were written, either by *scribae* or the military tribunes themselves. One copy became the basis of individual pay and service records maintained on campaign by the quaestor and his *scribae* while another was kept in Rome for consultation by future censors. *Lustra* performed by incoming generals ensured that field records were as accurate as possible. In combination the various records served to support the legions to both tactical and logistical benefit while simultaneously maintaining the fair treatment of individual soldiers to prevent uprisings. It was this system which supported Rome's army as she expanded across the Mediterranean.

Having established the nature of Mid-Republican bureaucracy, it is now possible to compare these findings with extant Imperial documents. Any similarities, or differences, between the two periods have further implications for this discussion. Strength reports and pay records are of particular interest. It must be noted that the surviving documents are not a representative sample of the documents generated by the Roman army during the Principate. The military documents from Vindolanda are largely concerned with supply,[24] whereas those from Dura-Europos contain much more information about manpower.[25] However, this makes the balance of their content even more significant. Between the two sites, a larger range of documentary activity is in evidence than either one alone. More significantly here, Dura-Europos reveals that enumerating men was an important consideration in military

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[24] *Tab. Vind.* 2.127-177.
[25] *RMR passim.*

administration, a factor somewhat masked by the predominance of logistical material at Vindolanda. That even a tiny sample of perishable documents survives from what Vegetius implies was a prodigious bureaucratic endeavour over several centuries suggests that documentation was as important as he indicates.[26]

It is unsurprising that no documents from two or three centuries earlier, from the Middle Republic, survive. The materials discovered at Vindolanda and Dura-Europos survived due to unusual soil conditions which preserved the discarded documents. No such caches have been found on Italian soil besides the documents preserved in Vesuvian ash on the bay of Naples.[27] This lack of extant documentation is not a barrier to a comparison with the forms of paperwork proposed in this discussion. Another hurdle is that the documents from both locations deal almost exclusively with *auxilia* not the legions, so the comparison is not quite a direct one. Nonetheless, the purpose here is to demonstrate that the forms of administration suggested are realistic. The comparison allows this. Further, even in the Republic there is an assumption that allied administration ran roughly parallel to Rome's.[28] As Imperial *auxilia* had a more integrated, permanent place within the army, it is reasonable to assume that their bureaucratic methods were not too different from those of the legions.

Some of the most famous documents from Vindolanda and Dura-Europos are strength reports. These occur in different forms, but all contain a list of a cohort's men with their rank.[29] Fink divides the papyri from Dura-Europos into daily morning reports, monthly reports and yearly *pridiana*.[30] The author follows Gilliam

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[26] Vegetius, *Mil.* 2.19f.
[27] E.g Jucundus' archive, see V:i.
[28] See I: Introduction.
[29] *RMR* 1-9, 47-67; *Tab. Vind.* 841.
[30] Fink (1971) 180-217.

in being more cautious about this division;[31] the documents Fink identifies so distinctly are often very similar and fragmentary. Attribution has often been made based on similarity of form rather than an explicit mention of the type in the text. In many cases this is the only method available, but care is required nonetheless.

This is exemplified by the strength report from Vindolanda. Bowman and Thomas associate this with the *pridiana* from Egypt, but note that the form differs and it is not dated to the end of the year.[32] This has several implications, as Bowman and Thomas mention. Firstly, it suggests that localisation of records was the norm during the Principate. While the central organisation, with the requirement by high officials for yearly reports, was uniform, the paperwork of individual legions and units may have had a more discrete form dictated by the preferences of its creators and immediate recipients at a local level. Secondly, it suggests that there were interim strength reports generated as necessary according to the unit's needs, not just the yearly summary in the *pridiana*. Indeed, even the securest *pridiana* from Dura-Europos, *RMR* 63-64, are dated to the beginning of the Egyptian, not Roman, year. This may be another example of local idiosyncrasy, or suggest that these examples are in fact interim reports themselves. Whichever is the case, the number of strength reports and rosters indicates the importance to the Imperial armies of knowing the number and distribution of their troops down to individual soldiers.

These strength reports reflect a concern for understanding numbers which can also be seen in the Middle Republic. As demonstrated, commanders took time to account for the dead after a battle when practical, keeping the legion lists as up-to-date as possible. The letters sent from the field containing the numbers and possible names

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[31] Gilliam (1962) 748, 754.
[32] Bowman & Thomas (1991) 65.

of the dead indicate that such information could be obtained on a regular basis.[33]

This is not direct evidence of the Imperial-type strength report, but is indicative of

something similar. The expedient of accounting for the living rather than the dead is

reminiscent of the roll-call which was required to create or update strength reports.[34]

On the other hand, it is unlikely that strength reports from the year-long campaigns

common in the fourth and third centuries contained all the complexity of the

Imperial records. The account from Vindolanda notes men absent in London and

Coria. Such detachments were not required by the earlier smaller armies and shorter

campaigns, but there is indirect evidence of a similar system in place in the second

century. In 168 reinforcements sent to Macedon who proved to be surplus to

requirement were sent to garrisons.[35] As in the Vindolanda example, not all the men

under a general's command were stationed in the same place. In order to keep track

of these men, as the administration argued for here suggests was necessary, some

kind of strength report including the men absent in these garrisons was required.

The capability of the legions to allow for this form of garrisoning suggests that

strength reports developed along with other administration during the second

century.

The *pridiana* also appear to have a connection to Mid-Republican practice. If they

can be described as yearly reports updating the area commander on the troops under

his command, they have a similarity to the *lustra* undertaken by incoming generals.

Both functioned as a yearly check of the real, rather than ideal or theoretical, state of

the soldiers. It has been theorised here that the *lustrum* had a written element in the

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[33] See IV:i.
[34] See IV:i.
[35] Livy 44.21.5-8.

form of an updated legion and unit list.[36] The yearly *lustrum* and report of the

Middle Republic may have developed into the *pridianum*. Alternatively, if the

pridianum was an interim report generated as necessary rather than a yearly

institution, it nevertheless fulfils the function of giving an overview of the army's

fighting strength in the same way as the 'morning' and 'monthly' reports. Reports of

this type are comparable to the Mid-Republican general's ability to generate casualty

reports. The paperwork of both periods indicates a continuing concern to know the

real tactical strength of military units.

Pay records are another area in which a remarkable similarity can be seen between

the Imperial and Mid-Republican documentation. As Fink highlights, the deductions

from pay described by Polybius are exactly what can be seen in surviving pay

records on papyri.[37] *RMR* 68 is particularly striking. Fink describes it as a record of

legionary pay,[38] but Watson disagrees. Based on the amounts cited, Watson suggests

that it is the record of *deposita* showing 'the amounts standing to the men's credit' as

described by Vegetius. The records were thus produced by the clerks who assisted

the standard bearer.[39] This document does not deal with the entire sum of pay, only

what the legionaries chose to save, but remains a useful comparison. The papyrus

demonstrates how individual records could be kept, with discrete deductions of

different amounts made for separate men. This is precisely the system which can be

inferred from Polybius' description of pay.[40] Once again there is no direct evidence

of documentation of this type in the Middle Republic, but the correlation between

RMR 68 and Polybius' description is appealing. Indeed, it may be questioned how

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[36] See IV:iii.
[37] Fink (1971) 8; Polybius 6.39.12-14; *RMR* 68-73.
[38] Fink (1971) 243.
[39] Watson (1956) 338-9; Vegetius, *Mil.* 2.20.
[40] See IV:ii.

else the pay records of this type were managed if not in this manner. The only major difference to be noted is that during the Middle Republic the records would have been under the care of the quaestor and his attendant *scribae*, not the standard bearer.[41]

The remarkable similarity of some of the extant Imperial documents with those of the Middle Republic argued for here has an interesting implication for understanding the development of Roman military administration. As mentioned above, Augustus is often credited with introducing complex military bureaucracy.[42] This study has demonstrated that this was not the case, but the similarity of the documents suggests that he may have played a significant role in later development. Rather than introducing the documentation, it is possible that Augustus reintroduced it. During the first century many traditional military structures broke down. For example, the census, so important to military administration in the Middle Republic, was not properly completed between 70 and 29. This failure suggests that comprehensive *tabulae iuniorum* were not produced and so recruitment was not undertaken in the traditional manner. This conclusion is borne out by the evidence. First-century recruitment appears to largely have taken place locally, often based on personal allegiance, in a manner more reminiscent of the *tumultus* than Polybius' *dilectus*.[43] With the acts of the warlords (including Octavian/Augustus himself), emphasised by the troubles of the Civil Wars, military organisation became increasingly about

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[41] The status of the man in charge of these finances was lower in the Principate, perhaps surprisingly so. However, this may simply reflect the difference between an army which originated as a few thousand men campaigning for a few months and the much larger Imperial force which covered the empire and served for 25 continuous years. While the latter had its origins in the former, some changes to reflect the differences of the Principate are not surprising. More importantly, as the aim here is more focused on comparison of the forms of paperwork this issue need not detain the discussion.
[42] See I: Introduction.
[43] E.g. Appian, *BCiv.* 3.40.

personal power and loyalty and less and less controlled by centralised, or even legal, mechanisms.

Thus, Augustus' association with military administration should be seen as reinstatement not creation. As part of restoring the Republic, Augustus returned the census to its central position, regularised recruitment and established service terms.[44] The Imperial pay records and deployment lists suggest that, as with many things, Augustus adopted an 'if it ain't broke, don't fix it' approach. He used administrative forms already well established with a good track record. It is plausible that some of these records, more important for running the legion day-to-day than for macro-military endeavours, were retained to some degree throughout the turbulent first century. Knowledge of true troop numbers and the fighting force were just as important to rogue generals in the Civil Wars as the consuls of more stable periods, as was regular correct pay to prevent mutiny. The substantial increase in mutinies in the Late Republic indicates that the generals of this period were not as effective at preventing problems as the mechanisms of the Middle Republic had been,[45] but some type of organisation was nonetheless necessary to keep their armies functioning. Either way, the evidence suggests that Augustus had an important role in the development of military bureaucracy by regularising and settling the situation largely by reinstating the systems which preceded the first-century breakdown. If this suggestion is correct, it serves to emphasise the effectiveness of the Mid-Republican bureaucratic organisation.

All this works to demonstrate the importance of the developments in military administration undergone from the late fourth to the mid-second century. The

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[44] Dio 54.26.6; *Res Gestae* 8.
[45] Cf. Messer (1920) 170-3.

bureaucratic forms developed in this period allowed Rome to evolve from Italian city-state to global power. They facilitated many of the support mechanisms required to keep the army functioning successfully on increasingly far-flung and long-lasting campaigns. The development itself was pushed by the state's increasing demands on the abilities of its military as the scope of her interaction with neighbours, and indeed who could be considered neighbours, extended. It is particularly noticeable in the pressures of Hannibal's invasion, but present in some form throughout the period discussed. In turn, the successful evolution of bureaucratic mechanisms opened new military options to Rome. Each small change allowed Rome to look further afield. Administrative development was not the driving force in creating Rome's empire, but it facilitated this growth by providing the necessary organisational requirements for its operations. The relationship between military administration on the one hand and military success and state expansion on the other was symbiotic, each feeding the other. While it may have formed a support, developing and playing its role in empire building only because of pressures outside the symbiosis, Roman military administration is inseparable from the military itself. The bureaucratic developments of the Middle Republic remained a crucial, if more obscure, element in Roman military success by allowing the army to achieve its prescribed aims. It is the aim of this thesis to have lifted the function and functioning of this administration from its obscurity, which ancient writers accidentally created through familiarity, and to highlight both its complexity and importance in an often overlooked period of Roman bureaucratic development.

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Appendix I: Men liable and available for military service

The following are the tables used to calculate the approximate number of men both liable and available (that is, with a living father or brother under 60 to provide labour on a farm) to serve in the army in any given year. They have been compiled from the Coale-Demeny[2] Model Life Tables and Saller's model population simulations.[1] (See II.iii). Level 3 West Male and Level 6 West Male have been used in conjunction with both an 'ordinary' (men aged 30, women aged 20) and 'senatorial' (men aged 25 and women aged 15) model of marriage. Tables 1 and 2 provide the male citizen population breakdowns for each Level. Table 3.a, 4.a and 5.a give the statistical likelihood of having family members and their average age in terms of these broken down populations for each of the three models, Level 3 West Male 'ordinary' marriage, Level 3 West Male 'senatorial' marriage and Level 6 West Male 'senatorial' marriage. The totals given in 3.b, 4.b and 5.b were generated using probability trees.

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[1] Coale & Demeny (1983) 107, 110; Saller (1994) 52-65.

Table 1: Level 3 West Male

Age	C(x)	234 BC (443,625)	234 BC minus 10%	164 BC (553,311)	164 BC minus 10%
0-1	3.34	14,817	13,335	18,481	16,633
1-4	9.73	43,165	38,849	53,837	48,453
5-9	10.79	47,867	43,080	59,702	53,732
10-14	10.31	45,738	41,164	57,046	51,341
15-19 (17-19)	9.82 (4.91)	43,564 (21,782)	39,208 (19,604)	54,335 (27,168)	48,902 (24,451)
20-24	9.18	40,725	36,653	50,794	45,715
25-29	8.43	37,398	33,658	46,644	41,980
30-34	7.65	33,937	30,543	42,328	38,095
35-39	6.82	30,255	27,230	37,736	33,962
40-44	5.96	26,440	23,796	32,977	29,679
45-49	5.07	22,492	20,243	28,053	25,248
50-54	4.18	18,544	16,690	23,128	20,815
55-59	3.28	14,551	13,096	18,149	16,334
60-64	2.41	10,691	9622	13,335	12,002
65-69	1.59	7054	6349	8798	7918
70-74	0.90	3993	3594	4980	4482
75-79	0.40	1775	1598	2213	1992
80-84	0.11	488	439	609	548
85+	0.02	89	80	111	100

Table 2: Level 6 West Male

Age	C(x)	234 BC 418,868	234 BC minus 10%	164 BC 584,440	164 BC minus 10%
0-1	2.72	11,393	10,254	15,897	14,307
1-4	8.66	36,274	32,647	50,613	45,552
5-9	9.92	41,552	37,397	57,975	52,178
10-14	9.58	40,128	36,115	55,989	50,390
15-19	9.24	38,703	34,833	54,002	48,602
(17-19)	(4.62)	(19,352)	(17,417)	(27,001)	(24,301)
20-24	8.77	36,735	33,062	51,255	46,130
25-29	8.22	34,431	30,988	48,041	43,237
30-34	7.63	31,960	28,764	44,593	40,134
35-39	7.00	29,321	26,389	40,911	36,820
40-44	6.31	26,431	23,788	36,878	33,190
45-49	5.57	23,331	20,998	32,553	29,298
50-54	4.79	20,064	18,058	27,995	25,196
55-59	3.96	16,587	14,928	23,144	20,830
60-64	3.08	12,901	11,611	18,001	16,201
65-70	2.19	9173	8256	12,799	11,519
70-74	1.37	5739	5165	8007	7206
75-79	0.69	2890	2601	4033	3630
80-84	0.24	1005	905	1403	1263
85-90	0.06	251	251	351	316
90-94	0.01	42	38	58	52
95+	0.00	0	0	0	0

Table 3.a: Probability of having a living relative (and the relative's average age) for Level 3 West Male 'ordinary' marriage

Age	Wife	Father	Brother
15-19	-	0.63 (49.6)	0.62 (14.8)
20-24	-	0.51 (54.3)	0.59 (19.7)
25-29	-	0.39 (59.0)	0.57 (24.7)
30-34	0.59 (21.7)	0.28 (63.8)	0.54 (29.5)
35-39	0.93 (25.1)	0.17 (68.3)	0.50 (34.5)
40-44	0.97 (29.1)	0.09 (72.7)	0.46 (39.4)

Table 3.b: Men liable and available for the levy for Level 3 West Male 'ordinary' marriage results

Age	234 BC	164 BC
15-19	24,701	30,808
(17-19)	(12,351)	(15,404)
20-24	29,289	36,531
25-29	24,830	30,969
30-34	2772	3458
35-39	67	83
40-44	10	12
Men available 15-44	**81,670**	**101,681**
(Men available 17-44)	**56,969**	**71,053**

Table 4.a: Probability of having a living relative (and the relative's average age) for Level 3 West Male 'senatorial' marriage

Age	Wife	Father	Brother
15-19	-	0.63 (49.6)	0.62 (14.8)
20-24	-	0.51 (54.3)	0.59 (19.7)
25-29	-	0.39 (59.0)	0.57 (24.7)
30-34	0.59 (21.7)	0.28 (63.8)	0.54 (29.5)
35-39	0.93 (25.1)	0.17 (68.3)	0.50 (34.5)
40-44	0.97 (29.1)	0.09 (72.7)	0.46 (39.4)

Table 4.b: Men liable and available for the levy for Level 3 West Male 'senatorial' marriage results

Age	234 BC	164 BC
15-19	25,877	32,275
(17-19)	(12,939)	(16,138)
20-24	29,403	36,673
25-29	7675	9573
30-34	76	95
35-39	12	15
40-44	9	12
Men available 15-44	**63,052**	**78,643**
(Men available 17-44)	**50,114**	**62,506**

Table 5.a: Probability of having a living relative (and the relative's average age) for Level 6 West Male 'senatorial' marriage

Age	Wife	Father	Brother
15-19	-	0.66 (46.9)	0.59 (14.8)
20-24	-	0.54 (51.4)	0.57 (19.6)
25-29	0.59 (17.8)	0.43 (56.0)	0.54 (24.6)
30-34	0.93 (21.3)	0.32 (60.5)	0.51 (29.4)
35-39	0.97 (25.6)	0.22 (64.8)	0.48 (34.4)
40-44	0.97 (30.0)	0.13 (69.5)	0.44 (39.2)

Table 5.b: Men liable and available for the levy for Level 6 West Male 'senatorial' marriage results

Age	234 BC	164 BC
15-19	25,080	34,993
(17-19)	(12,540)	(17,497)
20-24	27,534	38,417
25-29	7858	10,964
30-34	56	78
35-39	5	7
40-44	4	6
Men available 15-44	**60,537**	**84,465**
(Men available 17-44)	**47,997**	**66,969**

Appendix II: Men over 17 years old with a *paterfamilias*

Table 1.a: Probability of having a living relative for Level 3 West Male 'ordinary' marriage

Age	Father	Grandfather
17-19	0.6	0.10
20-24	0.51	0.04
25-29	0.39	0.01
30-34	0.28	-
35-39	0.17	-
40-44	0.09	-
45-49	0.04	-
50-54	0.01	-

Table 1.b: Probability of having a living *paterfamilias* for Level 3 West Male 'ordinary' marriage

Age	Probability
15+	28.61%
(17+)	(25.54%)
15-44	38.84%
(17-44)	(35.65%)
15-29	53.38%
(17-29)	(50.96%)

Table 2.a: Probability of having a living relative for Level 3 West Male 'senatorial' marriage

Age	Father	Grandfather
17-19	0.66	0.22
20-24	0.54	0.13
25-29	0.43	0.07
30-34	0.32	0.02
35-39	0.22	0.01
40-44	0.13	-
45-49	0.07	-
50-54	0.03	-
55-59	0.01	-

Table 2.b: Probability of having a living *paterfamilias* for Level 3 West Male 'senatorial' marriage

Age	Probability
15+	33.54%
(17+)	(30.32%)
15-44	45.06%
(17-44)	(41.81%)
15-29	60.82%
(17-29)	(58.06%)

Table 3.a: Probability of having a living relative for Level 6 West Male 'senatorial' marriage

Age	Father	Grandfather
17-19	0.72	0.34
20-24	0.62	0.21
25-29	0.51	0.13
30-34	0.40	0.06
35-39	0.30	0.02
40-44	0.20	0.01
45-49	0.11	-
50-54	0.05	-
55-59	0.02	-
60-64	0.01	-

Table 3.b: Probability of having a living *paterfamilias* for Level 6 West Male 'senatorial' marriage

Age	Probability
15+	38.26%
(17+)	(34.99%)
15-44	53.97%
(17-44)	(50.70%)
15-29	70.98%
(17-29)	(68.19%)