SUPPLY AND COMMAND
A STUDY OF THE LATE ROMAN COMMISSARIAT

Stuart McCunn

Thesis submitted to the University of Nottingham

for the degree of Doctor of Philosophy

Word Count: 98,850

September 2017

TABLE OF CONTENTS

TABLES

FIGURES

ABSTRACT

The Roman ability to project their power and defend their empire was based on the empire having the capability to maintain a standing army. This thesis is an examination of the commissariat that supplied this army since without logistical support such an army could not survive. The basic question under consideration is how well the commissariat functioned in late antiquity, the period when it was in its most developed and best documented state.

When considering the commissariat of late antiquity it is important to understand what came before and how this system came into being. Of particular importance is the office of praetorian prefect, which went from being an imperial deputy with both military and judicial functions during the Principate to the chief administrative office in the late Roman state. Once this question has been addressed it is possible to look at the late Roman commissariat. The process of supply had several different stages, from raising supplies to their storage, transport, and distribution. All of these elements must be addressed separately. The system of supply in late antiquity was not static and there were several modifications to the system over the three centuries covered, most notably the creation of new positions at the top of the supply system. Determining the quality of the commissariat from this requires contrasting the twin considerations of effectiveness and efficiency – the ability to reliably provide supplies for the army and the expenditure of the minimum amount of resources necessary towards that goal.

The detailed analysis provided in this thesis supports the conclusion that the late Roman army was, in general, effectively supplied. The issue of efficiency is more difficult to assess, but it is clear that there were many areas of great inefficiency within the Roman system. This in turn implies that the emperors prioritized effectiveness over efficiency – a conclusion consistent with the importance of the army to the emperors' position.

Acknowledgements

I would like to give thanks to everyone who assisted me on this thesis. I could never have completed this thesis without the constant guidance and support of my supervisors, A.D. Lee, Simon Malloch, and John Drinkwater. I would also like to thank Maroula Perisanidi for taking the time to provide valued feedback for large portions of my thesis, and Jeroen Wijnendaele for pointing me in the direction of several valuable sources. Last, but certainly not least, I would like to thank my family for their support. Without them I would not be here.

A Note on Spelling

Please note that the spelling in this thesis follows American conventions, with which I am more familiar. At an early stage in my research, I sought guidance on whether I needed to use British spelling, and was advised by the Department that American spelling was acceptable, provided it was used consistently.

Abbreviations

Abbreviations follow the format provided in the *Oxford Classical Dictionary* or *Prosopography of the Later Roman Empire* with the following exceptions:

BF – *Byzantinische Forschungen*

CB – *Classical Bulletin*

Edict. Pret. Re. Ven. – Diocletian's *Edict of Maximum Prices*

JEdict. – Justinian, *Edict*

JNov. – Justinian, *Novellae*

Jones, *LRE* – A.H.M. Jones, *The Later Roman Empire*

NMaj. – Majorian, *Novellae*

NMarc. – Marcian, *Novellae*

NTh. – Theodosius II, *Novellae*

NVal. – Valentinian III, *Novellae*

INTRODUCTION

1. GENERAL INTRODUCTION

An aphorism of unknown provenance, but often attributed to Second World War general Omar Bradley, holds that "amateurs study tactics, professionals study logistics". The meaning is clear: without access to supplies an army will fail before it even gets a chance to enter battle. While success is judged by performance on the battlefield, wars are often more dependent on mundane issues of supply. What was true then was just as true for the Romans. The ability of the Roman state to supply its soldiers is one of the key means to measure the army's effectiveness, and any detailed examination of Roman campaigns needs to take the process of raising and distribution of supplies into account.

Roman authors may not discuss the topic very often, but they recognized the importance of supply. Ammianus' account of Shapur's 359 invasion stresses the actions of the traitor Antoninus who, prior to desertion, studied carefully the location and readiness of supplies since this was the best way to make himself useful to the Persians.[1] Writing in the late fourth or early fifth century, Vegetius cites a maxim that "armies are more often destroyed by starvation than battle, and hunger is more savage than the sword".[2] He further states that:

> On any expedition, the single most effective weapon is that food should be sufficient for you while dearth should break the enemy. Therefore, before war is commenced, careful consideration should be given to supplies and their issue in order that fodder, grain and the other army provisions customarily requisitioned from provincials may be exacted in good time, and quantities always more than sufficient be assembled at points well-placed for waging war and very well-fortified. But if the taxes in kind be insufficient, everything (needed) should be

---

[1] Amm. Marc. 18.5.1.

[2] "Saepius enim penuria quam pugna consumit exercitum, et ferro saevior fames est" (Veg. *Mil*. 3.3, tr. Milner).

> compulsorily purchased from advance payments in gold. For there is no secure possession of wealth, unless it be maintained by defense of arms.[3]

The Romans required an extensive system of supply because they fielded large armies by preindustrial standards. In the early Principate the empire had to support 25 legions, a total of around 125,000 soldiers and an approximately equal number of auxiliaries.[4] By the late second century the number of legions had grown to 33, and in the late empire the size of the military was even greater. Even the lowest estimates of the army's fourth-century strength put it at around 400,000 men.[5] Supporting a force of this size was challenging, whether that army was stationary or mobile. Historians have provided a variety of estimates, some of which conclude that the army consumed as much as 80% of the empire's budget.[6]

The Roman ability to keep their armies supplied has often been praised in general terms, and there have been detailed studies for the Republic and early empire, but there has been no systematic study to show how the Romans undertook the task of raising and supplying their forces during late antiquity.[7] This leaves a major gap in our understanding of military effectiveness during this period. Roman success in warfare relied on their ability to keep their armies supplied. Without this ability it would not matter what tactical or structural advantages the Romans had since their armies would never have reached the battlefield. Indeed, the soldiers garrisoned within the empire also relied on access to a reliable supply system. Any discussion of the Roman army as a fighting force must take into account whether the means to keep them fed and supplied were present. By not

---

[3] "In omni expeditione unum est et maximum telum, ut tibi sufficiat victus, hostes frangat inopia. Ante igitur quam inchoetur bellum, de copiis expensisque sollers debet esse tractatus, ut pabula frumentum ceteraeque annonariae species, quas a provincialibus consuetudo deposcit, maturius exigantur et in oportunis ad rem gerendam ac munitissimis locis amplior semper modus, quam sufficit, adgregetur. Quod si tributa deficiunt, prorogato auro conparanda sunt omnia. Neque enim divitiarum secura possessio est, nisi armorum defensione servetur" (Veg. *Mil*. 3.3, tr. Milner).

[4] Tac. *Ann*. 4.5.

[5] Or more precisely 389,704 according to Lydus, *Mens*. 1.27. See Nicasie 1998, 74-76, and pages 25-28 below.

[6] Estimates vary widely. Hendy 1985, 164-173, (25-32%); Duncan-Jones 1994, 45 (72-77%); Elton 1996, 126 (80%). There are some inconsistencies with Elton's figures (See Lee 2007a, 403 n. 92).

[7] For praise in general terms see Elton, 1996, 237; Whitby 2007, 324. For a somewhat more ambivalent view see Goldsworthy 2009, 207-208.

giving this question enough attention earlier studies ignore the undramatic yet essential underpinning to any military force.

A helpful way to explore the overall supply capabilities of the military is to consider the twin issues of effectiveness and efficiency. It is important to distinguish these two criteria from one another in order to understand the strengths and limitations of the Roman supply system. It is possible for a system to be effective at supplying the soldiers without its being efficient in doing so. From this perspective, the core question under consideration is how capable the empire was of supplying its army and how much wastage was required to achieve this aim.[8]

In order to answer this question, we need to understand the institutional structures that provided the armies with food. These structures make up what we may call the Roman 'commissariat'. This was not a single department of the government but a network of officials, serving under several different authorities, who were responsible for the various tasks that supplied the army with food. By examining these officials and their responsibilities we can reconstruct the structure of the system and consider its capability to adapt to changing circumstances.

The raising of supplies in the late empire is well documented compared to the system of earlier periods. The early empire had decentralized methods of control and an administrative system that left behind poor documentation of army supply. We have few documents which provide evidence for the manner in which supplies were organized and collected. For the late empire, however, we have access to legal evidence which provides numerous details about the functioning of the supply system. Papyrological texts increase in value since the supplies for the army were no longer taken out of the regular taxes after it had all been collected but were levied directly from the provincial taxpayers. In addition, there are numerous incidental references that appear in histories, letter collections, and other literary sources.

---

[8] The question of the effectiveness of the late Roman army has been considered before (e.g. Elton 1996, 265-268; Lee 1998, 232-237) but only from a military perspective.

This evidence provides us with the ability to reconstruct the commissariat in considerable detail. An institutional approach allows us to build a solid evidentiary foundation from which to consider the broader issues of effectiveness and efficiency. Such an approach will also allow the exploration of different issues connected with the praetorian prefecture, curials, taxation, and supply in general.

There are two different methods that can be adopted when reconstructing an extinct system: the bottom-up and the top-down approach. Each comes with distinct problems. A bottom-up approach will naturally tend to focus on the variations and emphasize the individual components at the expense of the whole. The empire covered a vast area which incorporated many peoples and traditions. Regional variations could be extremely significant, most notably in the East/West Greek/Latin divide. This means that any bottom-up reconstruction of the commissariat will have difficulty connecting this local experience to the larger administration.

A top-down approach faces the opposite problem: it risks oversimplifying the system and papering over all the differences in the interests of the big picture. Such an approach can be overly schematic and ignore areas where the way the system theoretically operated does not line up with reality. What it does provide is an understanding of how the various elements of the system interacted with each other and the hierarchy within which the system operated.

While there are many advantages to a bottom-up perspective, to use such a method would be impractical for our purposes. The evidence available for such a reconstruction is insufficient to provide us with the level of detail needed to satisfactorily explore the system's function. Reconstructions based on Egyptian papyrological sources (such as Mitthof's 2001 monograph) are by necessity local, fragmentary, and their interpretation uncertain. These sources are surviving tax documents, written by local figures for their own purposes and not necessarily meant to be understood by outsiders. They were not designed as a guide of any kind and are full of implicit assumptions which we may struggle to decipher correctly.

A top-down approach is eminently more practical, and when confronting empire-wide issues it is more useful too. While a bottom-up approach builds on the data in papyri, the evidentiary basis for the top-down working of the system comes from the law codes. The greatest advantage of the law codes for the purpose of reconstruction is that they are intended to be a guide of sorts. The laws outline the limits of what was permitted by the authorities and in so doing reveal the structure of that system. They still require interpretation and need to be supplemented by additional data, but without the law codes it would be impossible to provide a framework for the Roman commissariat.

The goal of this reconstruction is not complete accuracy as to the methods followed for all regions at all times. We do not have the data to reconstruct them and even if we did it could vary dramatically depending on the location, time period, and individuals involved. Instead, this reconstruction will adopt a broad-brush approach to reproducing an outline of the system; the higher-level processes that occurred and the organization of the lower rungs of the system as viewed from the center. It will reproduce the system as seen by the central authorities administering the system, above all through the praetorian prefecture. A system can have numerous local variations while still remaining the same system.

Local details may have varied, even varied substantially, from the system as outlined here. We can gain some idea of the degree to which this was true from Egyptian papyri. The officials found in these papyri are similar, but not identical to the ones found in the law codes. Even aside from having Greek terms used in place of the Latin ones of the codes, the papyri reveal a multitude of officials where the law codes simply have one. The positions do not always line up. Despite these variations, a functional reconstruction is possible. The law codes were designed to be universal, which means that they had to be able to be applicable to local situations as well. Local variations did not make the law codes irrelevant and comparisons with local sources of information can tell us the limits of our knowledge and show us how far the idealized system we have been given differed from reality.

The system reconstructed here is that of the later fourth and early fifth century. The reasons for this are partially evidentiary: they are our best documented years — the core years of the *Theodosian Code*. It is also a useful period because the system in place during these years is closely related to the one in use throughout late antiquity. It is clear that many of the components of the late fourth-century system were already in place under the Constantinian dynasty. Judging from Egyptian papyri, the lower levels may have been largely in place by the end of the tetrarchy. The administrative apparatus of the Valentinianic/Theodosian empire was essentially a refined version of that used by Constantine. It remained the basic underpinning of the system into the seventh century. The innovations affected aspects of the system, but they did not generally radically alter the existing methods.

The exceptions to this are the creation of new posts at the prefectural level by the sixth century. Two positions, the *quaestor exercitus* and the supply prefects (*praefecti praetorio vacantes*/ἔπαρχος τοῦ στρατοπέδου) created a substantial adjustment of the upper levels of the Roman supply system. Both positions acquired some of the responsibilities and powers of the praetorian prefect and were particularly connected to supply. These positions will receive attention towards the end of the thesis, since they provide important evidence of the adaptability of the late Roman commissariat.

1.1. Terminology

Before examining the late Roman commissariat, it is important to come to a more precise understanding of some of the key terms and to set this topic into a wider perspective. While the late Roman commissariat has never been the subject of a study as such, it deals with many issues which have been discussed separately. The most important of these related topics is that of logistics. Logistics is the method and means by which a military force is supplied with the food and materiel it needs to survive.[9] It is particularly concerned with the food supply of the soldiers and the manner in which it is transported. While late Roman logistics remains an area with much research left to be done, it has been considered in several recent works.[10]

Unlike modern society, where a substantial surplus of salable goods available for purchase can be taken for granted, for ancient armies the procurement of grain and other

[9] Roth 1999, 1-5.
[10] Christie & Sarantis 2013, 211-220; Lee 2007b, 85-89; Whitby 2007, 323-328.

supplies was often the most complicated part of the process. It was not the ability of the Romans to transport supplies alongside the army that was exceptional. Even the smaller barbarian groups neighboring the empire proved able to transport supplies when they really needed them.[11] What gave the Romans their real advantage was their ability to extract supplies from throughout their empire and have those supplies delivered to the supply depots in any part of the empire from which the army could be replenished. Transporting the supplies from these sites to military units was easier than the extraction, transport, and storage that had been needed to get them to this point. By utilizing the vast resources available to them on such a large scale, the Roman army was able to ensure that they had a significant material advantage over their opponents.

In modern terms, all of these functions would fall under the control of the commissariat. The *Encyclopedia Britannica* (1911) defines a commissariat as "the department of an army charged with the provision of supplies, both food and forage, for the troops".[12] The official titles of these departments vary, from the US Army's Quartermaster Corps to the UK's Defense Equipment and Support agency. These departments fall under the control of a single officer, commonly a quartermaster general as in the British and American armies.

The late Roman state did not have a single commissariat organized along the above lines. Instead, they had a group of related officials who were responsible for managing the logistics of the Roman army and keeping the soldiers supplied both on campaign and in garrisons. These officials were spread across several different departments (both civil and military) with different chains of command. The majority of the work was undertaken by local officials appointed by the cities, supervised and coordinated by the central authorities.

[11] Barbarian methods of supply rarely receive close attention in the sources, despite their fielding of some clearly substantial armies, but we can see some evidence for general capabilities in the Alamannic stockpiles that were spirited out of Julian's way in Gaul and the wagons accompanying the Gothic army in Thracia (Amm. Marc. 16.11.10, 31.7.5, 31.12.11).

[12] *Encyclopedia Britannica* 1911 6.774. The most recent edition of *Encyclopedia Britannica* uses the clunky term "logistic service support" instead (See Leighton). This may be to avoid confusion with the Soviet commissariats, which were military administrative units unconnected to supply.

In the strictest sense then, the term commissariat is an artificial construct placed anachronistically upon the Roman supply system. Yet if there was no formally designated commissariat department there were certainly a myriad of officials employed in ‘commissariatorial’ duties. The local officials in charge of raising, transporting, and storing army supplies were all part of the same municipal organizations, had a clear chain of command, coordinated with officers and other municipal authorities, and ultimately answered to the praetorian prefect. It would not be anachronistic to consider them as part of a department, even if they held responsibilities beyond just supply of the army. The situation of commissariat officials within the army was similar, with a clearly defined chain of command and responsibilities for coordinating with commissariat officials outside the army.

It is useful for the purposes of this thesis to group these positions together as part of the same department since they formed, in effect, a functional unit. Considering these positions together makes clear their interconnected nature and the way that responsibility for army supply was a unified goal that cut across different chains of command. It also makes the supply role of the praetorian prefect clearer since this was the key official who was closely involved in all stages of the process. The prefect is the official whose identity as a commissariat officer is most clear. Even at the time, the prefect was described as “the supplier [who] provided grain for [the army]”, a description that is very similar to that of a quartermaster general.[13] It is difficult to consider the prefect’s responsibilities in this role unless municipal and prefectural officials are regarded together.

The term commissariat used here is therefore a convenient shorthand for a complex series of ancient arrangements composed of elements of three connected departments: the praetorian prefecture, the curial magistracies, and the military supply officers, all under the authority of the prefect. While not a formally designated department, these officials worked together to form a functional unit. To discuss one set of officials without describing how they interacted with related groups can only provide a fragmented view of their role. For this reason, it is more useful to consider the officials involved in this duty as a whole. The term commissariat as used here will therefore be

[13] ὁ χορηγῶν τὴν σίτησιν αὐτοῖς […] ἐπεξέρχεται (Zos. 2.33.4).

defined as a functional unit composed of the officials who were responsible for the supply of the army.

2. State of Research

There is no monograph that takes as its subject the roles and duties of the late Roman commissariat. However, since the commissariat's role was so important and consisted of officials from so many departments there are numerous works that go into aspects of the question in detail. Broadly speaking, these works can be divided into two categories: those dealing with ancient army logistics as a whole and those that deal with the administrative structure of the late empire. The subject of the commissariat contains elements of both these topics, being an administrative study of the system of logistics that kept the army supplied.

2.1 Approaches to Late Roman Administration

The starting point for any discussion of late Roman administration is A.H.M. Jones' seminal *The Later Roman Empire* (1964). This monograph lays out in detail the structure of the late Roman empire, and was a necessary precursor to the rise of late antique studies in the 1970s. The basic goal of the work was to provide a working depiction of the organizational structure of the Roman civil/military/religious administrations. As such it inevitably had to confront the officials that composed the late Roman commissariat.[14]

Despite its ground-breaking importance, Jones' work is not without its weaknesses. Fewer than half the Oxyrhynchus papyri we have now had been published when he wrote his monograph.[15] As is commonly noted (even by Jones himself) his work makes infrequent use of numismatic and archaeological material.[16] His section on

---

[14] Jones, *LRE*.
[15] Jones, *LRE* 456-457. See Mitthof 2001; Laniado 2002.
[16] Jones, *LRE* vi-vii.

transportation (particularly land transport) is now outdated and in need of revising.[17] However, the broad outline of commissariat officials is accurate, even if the positions could sometimes be presented in greater detail.[18] The main problem with his work from the perspective of the commissariat is that the duties associated with army supply are scattered throughout the work. While he does provide an account of army supply procedures and the taxation system, the three main groups involved are split between three different chapters.[19] With topics spread this widely throughout the monograph, it is hard to reconstruct a cohesive vision of the system. Jones, of course, had good reasons for dividing the chapters as he did since he was not primarily concerned with issues of logistics, but this does leave room for further exploration of the system.

Later works have also examined the late Roman prefecture. While several works are dedicated specifically to the praetorian prefecture, such works have thus far been highly localized in era and topic. Three of the main works on the prefects of the fourth century are concerned primarily with the establishment of the regional prefectures.[20] This is an important question that needs to be confronted in order to understand the structure of the prefecture across the fourth century, but it means that none of them go into detail about tax collection or the prefects' other duties.

Laurence Lee Howe's 1942 monograph on *The Praetorian Prefect from Commodus to Diocletian* does consider carefully what the prefects' duties were. He adopts a prosopographical approach, studying the careers of all the known prefects and extrapolating from that. His work is useful for the third century, but since it ends with

---

[17] Jones, *LRE* 841-844. See Laurence 1999, 95-108.
[18] See Heather 2008, 97-115, for a more detailed discussion of the strengths and weaknesses of Jones' work on bureaucrats and civic officials.
[19] Jones, *LRE* 586-592 (praetorian prefects), 626-630 (military supply officials), 737-757 (curials).
[20] Migl 1994; Salway 1994, 72-191; Porena 2003 (with a French summary in Porena 2007). Porena and Salway are concerned almost exclusively with this topic, although Salway does provide some more general thoughts on the prefecture as an institution. Only the first half of Migl's work is dedicated to establishing the dating of the regional prefectures. The second half provides a more detailed exploration of the structure of the prefecture, specifically his contention that this structure was not planned in advanced but arose by chance, which ties it back to the question raised in the first half.

Diocletian there is little discussion of the later development of the position or the roles that it played in the fourth century.[21]

Other works of relevance to the prefecture are those dealing with corruption. MacMullen's *Corruption and the Decline of Rome* (1988) focuses mainly on the prefecture in its section on the later empire, and offers a highly negative verdict on its efficiency and effectiveness.[22] Christopher Kelly's *Ruling the Later Roman Empire* (2004) is also interested in the role that corruption played in the running of the empire, but it mainly views it as a necessary part of the system.[23] Both works are of value when discussing the way in which corruption impacted Roman administration, but neither go beyond this to explore the functions of the institution.[24]

An attempt to clarify the structure of the bureaucrats in the prefecture is T.F. Carney's *Bureaucracy in Traditional Society* (1971).[25] This work has three sections: a survey of the bureaucracies of the early and later Roman empire, an analysis of the prefecture of the sixth century compiled from John Lydus, and a translation of John Lydus' *De Magistratibus*. The first section is somewhat schematic, outlining the bureaucratic structure in very basic detail. The second section is of more use. It clarifies the nature of John Lydus' account of the prefecture using comparisons with more modern bureaucracies. As with Kelly and MacMullen the focus on the prefecture is closely tied in with John Lydus' account. This means that there is little discussion of the fiscal side of the prefecture since Lydus was dismissive of the accountants and instead focused his work on the legal side.[26]

The work that is most useful from an administrative background is Sebastian Schmidt-Hoffner's monograph *Reagieren und Gestalten* (2008).[27] Like Jones, the major concern is with the structure of government, but rather than trying to provide an overall

---

[21] Howe 1942.
[22] MacMullen 1988, 137-170.
[23] Kelly 2004.
[24] Kelly 2004, 435-458, does provide a discussion of the roles of the various officials but the focus is mainly on the judicial officials for whom we have the most evidence.
[25] Carney 1971.
[26] Lydus, *Mag.* 3.35. For more on Lydus see Carney 1971b; Kelly 2004, 11-104.
[27] Schmidt-Hoffner 2008.

model it is more concerned with the way that the system functioned in reality. Like Jones, however, it does not isolate the commissariat as a functional unit, but rather deals with several of the officials and issues related to it under independent headings.

Finally, one work is of immense importance for any study of the administration of the Roman system of supply. That work is Fritz Mitthof's 2001 monograph on the *Annona Militaris*.[28] This work is a detailed study of the raising of the *annona militaris* in Egypt based mainly on papyrological sources. The primary focus of the work is the third century, but it contains discussion of the fourth and fifth centuries as well. Its primary aim is to identify the role of the liturgical officials found in the papyrological sources, and to delineate how their duties were interrelated. The work is very good in describing their arrangements at the local and provincial level, but it takes a very limited approach to larger issues. The focus remains at all times on the liturgical officials involved in raising supplies and does not look beyond that to consider the higher-level officials or the connection between local and imperial officials.

When considered together there are studies of the administration from every level of the commissariat, even if there focus is not specifically on supply issues. What is lacking is a study of the intersection of all these responsibilities. The commissariat operated where military, praetorian, and municipal responsibilities combined. As such, none of the above studies truly captures the full range of this system in operation.

2.2 Approaches to Roman Logistics

Forty years ago it could justifiably be claimed that there was no monograph dedicated to the logistics of classical armies. Now, fortunately, this is no longer the case. Starting with Donald Engels' 1978 *Alexander the Great and the Logistics of the Macedonian Army*, there have been a number of studies on classical logistics.[29]

---

[28] Mitthof 2001.

[29] Engels 1978. Preceding this was Adams 1976, but this remains an unpublished thesis and as such had little impact on the subject.

Logistics is a broad topic, so the focus of individual works can vary dramatically. Engels' book is geographical in approach and does a good job of showing how Alexander arranged for his supplies in advance. The narrow period of the book and the strong campaign perspective limit the use of his account beyond the period of Alexander. He does offer more general discussion on universally applicable areas of logistics, but his conclusions in these areas can be problematic. The figures which he provides for the nutritional value of ancient foodstuffs are a significant underestimation, which impacts his conclusions about the size of rations needed for each soldier and each pack animal.[30] This also led him to some erroneous conclusions about the length of time which an army can survive without carrying all its own supplies.

Paul Erdkamp's work, *Hunger and the Sword* (1998), takes a similarly broad approach to the question of army supply. Since this book covers a wider period (from the Punic Wars to the end of the Republic) it obviously cannot support the campaign focus of Engels' work, but he still considers carefully the ways in which the gathering of supplies varied across different regions. His work is concerned with the question of where the Romans gathered their supplies and the methods used to acquire them.[31]

Jonathan Roth's 1999 book on the *Logistics of the Roman Army* (covering the Roman army from the Punic Wars through Alexander Severus) is more concerned with a structural view of the logistical system. The identification of the officials responsible for collecting and transporting supplies is explored carefully, although the focus does not extend far beyond army officials. He also offers a more considered discussion of rations and nutritional requirements, which serves as a useful correction to Engels' exaggerated figures. Rather than concerning itself with larger issues of supply for key campaigns, it provides a general description of the supply system over the course of the late Republic and early empire.[32]

Theodor Kissel's *Untersuchungen zur Logistik des römischen Heeres in den Provinzen des griechischen Ostens* (1995) takes an approach that is more similar to that

[30] Erdkamp 1998, 29; Roth 1999, 7-24.
[31] Erdkamp 1998.
[32] Roth 1999.

adopted by Engels and Erdkamp, although he covers the early empire (27 BC-AD 235) and only the Greek East. While his work details a wide range of topics in detail his conclusions can sometimes be questionable. His belief that the *praefectus annonae* was established by Augustus to provide supplies (*annona militaris*) for the army two centuries before the *annona militaris* is even attested seems particularly difficult to support.[33] While this limits the value of the work, it still contains much useful research, combining detailed accounts of key campaigns with careful consideration of the sources of supply.[34]

All of these books are useful studies within their own chosen focus. The obvious issue with them when discussing late Roman logistics is that none of them cover this period, although Roth, Kissel, and Erdkamp do draw on Vegetius' fourth/fifth-century work. While Roth, Adams, and Erdkamp are all concerned with the Roman era, the first two end their discussion by the third century AD, and Erdkamp actually ends his with the fall of the Republic. In some ways this does not reduce their relevance as much as it may sound. Logistical requirements do not change dramatically over the centuries. The Persian army at Thermopylae issued its soldiers essentially the same basic grain ration as the Romans did hundreds of years later.[35]

The problem is that the areas where logistical methods did change dramatically was in the structure of the supply network. For that reason books that deal with issues of late Roman logistics tend to rely heavily on Jones' work. Jones' work provides the basis of Karen Dixon and Pat Southern's *The Late Roman Army* (1996), and it is heavily referenced in *The Cambridge History of Greek and Roman Warfare* (2007), M.J. Nicasie's *Twilight of Empire* (1998), and A.D. Lee's *War In Late Antiquity: A Social History* (2007) although these books also provide a summary account of the works of other authors.[36]

Hugh Elton's book *Warfare in Roman Europe, AD 350-425* (1996) also bases its subchapter on logistics on Jones, even while modifying the focus to the army on

---

[33] Kissel 1995, 120-161. See page 45 n. 134.
[34] Kissel 1995.
[35] Hdt. 7.187.2; Polyb. 6.39.13.
[36] Dixon & Southern 1996, 79-81; Nicasie 1998, 117-184; Lee 2007b, 85-98; Whitby 2007, 323-328.

campaign.[37] In addition to this, Elton does some calculations of the supplies required at the battle of Strasbourg using the method and figures featured in Engels' study.[38] His use of this method is more limited than Engels since he does not use it to determine the extent of Roman capabilities but as a means of demonstrating Roman strength by providing figures for a known conflict. Since Engels' figures are far too high, this leads to some misleading conclusions.

Much of the truly original research on late Roman logistics comes from John Haldon. Unlike other works which base their research on earlier sources, Haldon approaches the late Roman period from the opposite direction chronologically. While he uses some information from the late Roman period he also uses information from later Byzantine sources, particularly two tenth century military manuals.[39] Using this expanded range of data he has come up with estimates for the requirements of different armies based upon research independent of Engels, Roth, and Erdkamp. He has also considered Byzantine logistics from an archeological perspective and attempted to identify sources of supply.[40] His concerns are primarily concerned with the operation of the army and the practical supply methods of soldiers on campaign and he does not give much focus on the administrative side of logistics.

Efthymios Rizos has also been responsible for some substantial work in exploring the archaeological side of logistics. In two articles he discusses several sites connected to the *annona militaris* throughout the eastern empire, especially evidence for military granaries.[41] These articles provide a general outline of relevant excavations from the regions in question and include some important observations of value. Particularly useful for this thesis is the account of *primipilarii* conducting their *pastus primipilum* as recorded on inscriptions from Novae and Oescus.[42]

---

[37] Elton 1996, 236-239.
[38] Elton 1996, 237 n. 12.
[39] Haldon 1999a, especially p. 281-292; Haldon 1999b, 285-302; Haldon 2005.
[40] Haldon 2006.
[41] Rizos 2013; Rizos 2015. For a general survey of other archaeological evidence for army supply see Sarantis & Whately 2013, 211-220.
[42] Rizos 2015, 298-299.

Coverage of late Roman logistics is spotty and inconsistent. In some areas, such as the works cited in Christie and Sarantis' work and Haldon's land studies, there is much research being conducted. In other areas, the principal work remains that of Jones. The main studies on ancient logistics come from a period that is either earlier or later than the period being discussed, and are of limited value when it comes to discussing the late Roman commissariat.

The key factor that is left unexplored in these works is the commissariat. The early empire did not have anything approximating the centralized system of the later empire and for that reason there has never been a study of the Roman commissariat. While the logistical imperatives were largely the same, the solutions could be completely different. Rome's armies were supplied by a changed empire, with a praetorian prefect in charge of supply and armies dispersed in smaller units across the empire. These changes render much of the earlier literature irrelevant for this period, which makes many of the books discussed above less useful than they may otherwise seem.

While there have been a number of works that discuss broad issues of supply lines and others that discuss more local issues of transport, consideration of the mid-range issue of the officials involved in supply and the practicalities of their duties is scarce. This is not to dismiss the value of these works, but any overall understanding of the supply methods of the late empire must involve a study of the figures undertaking the actual supply. These studies also tend to focus on the supply of campaigning armies rather than the more common stationary forces. This is an omission that this thesis intends to rectify.

3. Sources

3.1 Legal Evidence

Studies of the late Roman empire are blessed in having access not only to individual laws but to two entire law codes as evidence for the administrative structure of the state. The *Theodosian Code* was compiled in 438 out of laws issued by previous emperors, beginning with Constantine, to serve as a reference for officials across the empire.[43] The *Justinianic Code* was compiled almost a century later as part of Justinian's larger government reforms.[44]

Since these laws were intended to provide guidance to officials throughout the empire, they naturally contain much information that is pertinent to the topic of army supply. They outline, among other things, the duties of commissariat officials, the structure of the taxation system and prefecture, the nature of liturgical posts, restrictions and privileges of transport liturgists, and the annual budget. These were all issues that judges could be expected to hear petitions on, making their inclusion in the laws essential.

These law codes contain many laws dealing with issues of taxation and supply, and individual laws vary in approach, but they can roughly be divided into two categories of different value to this thesis. Prescriptive laws are ones that are intended to define the procedures that must be followed. They describe the manner in which the recipients are expected to act and the expected course that they must take to reach their goal. Obviously, such laws are very useful for reconstructing the functioning of an extinct system. In outlining the procedures for individual officials, the laws by necessity need to designate the way they fit into the larger system and would interact with other officials.

Proscriptive laws, on the other hand, are concerned with forbidding behaviors. Where a prescriptive law outlines the way in which an official is supposed to act, a proscriptive law will take the existing system for granted and only prohibit certain practices within it. Proscriptive laws allow for a more malleable system since they do not define a rigid set of rules which must be followed; they merely define the limits which must not be violated. Anything within those limits is permitted. Laws such as this are very useful for examining cases of corruption or the practical limitations of the system, but they serve poorly to define the rules of the system. The most that can be said from these laws is what rules the system did *not* consist of. For example, proscriptive laws can

[43] *CTh*. *Gesta Senatus* 1-8 (438). For a discussion on the value and limitations of the Code as a historical source, see Matthews 2000.
[44] *CJ De Novo Codice Faciendo (529).*

prove what officials were forbidden from tax collecting, but without a prescriptive component it is impossible to state which officials *were* doing it.

There are numerous problems with using these laws as evidence. The largest issue is whether these laws were actively followed or if they represent futile attempts of the central government to limit behaviors beyond their control. Jones was convinced that "many, if not most, laws were intermittently and sporadically enforced, and that their chief evidential value is to prove that the abuses which they were intended to remove were known to the central government".[45]

This argument has been made many times, but it is overstated. As Jill Harries has pointed out, the repetition of laws does not necessarily indicate that they were failing to be fulfilled but rather indicates that state intervention in previously unregulated issues was becoming more common.[46] Emendations of the laws are not always a sign of the law's weakness, but rather can be a sign that they were being obeyed. For example, the law on *navicularii* estates went through multiple variations before the emperors settled on a solution that they considered effective. The first law required those who had purchased *navicularii* estates to return them to the guild, then they were required to return them unless they wished to assume the duties themselves, and finally they were simply ordered to take over the duties.[47] If the original law was not being followed then why was there need of modification? This can be seen as a sign of imperial indecision, but it is also a sign that the laws were being enforced. While some laws clearly reflect ideological claims rather than the reality, the general intent of the law codes was a practical one. If most laws truly were unenforced and unenforcable it is hard to explain why they have been preserved.

This is not to imply that all laws were followed equally. Some definitely failed to correct the problem they were written to prevent. We can see from the laws on the quartering of soldiers that imperial legislation could be helpless to restrain abuses. The same laws denying the rights of soldiers to demand goods from those they were quartered

[45] Jones, *LRE* viii.
[46] Harries 1999, 78-79.
[47] *CTh*. 13.6.2 (365), 13.6.7 (375), 13.6.8 (399).

on were issued repeatedly throughout the *Theodosian Code*, but in the sixth century the abuses were still rampant and the laws openly ignored.[48] The laws evidently had little effect.

The degree to which legislation was enforced would have depended on many factors. One of the chief considerations is the persons whom the law was restricting. When elite or favored groups were denied their privileges it was often easy for them to evade enforcement. This is particularly true of soldiers, the objects of the aforementioned law. Soldiers were under military authority, which meant that they could frequently evade any civil punishments by going through the military courts. Powerful local potentates were similarly in a strong position to resist the legal authorities.

Another factor in the enforcement of laws was the question of who was to bring the trial before the judge. In the case of the *navicularii* cited above, it was their responsibility to appear in court in order to have their losses recognized. They were unlikely to fail to do so since this would result in a loss of money. In cases such as the quartering of soldiers, the people bringing the case were those who the soldiers were being quartered on. If they could not get their complaints to the general in charge then he was under no obligation to seek out the abuses.

The difficulty of deciding whether a law was enforced is compounded by the fact that we are often in the dark about the nature of the system in place before the laws went into effect. When a law appears that outlines a procedure is it establishing that process for the first time or is it intended to reinforce or clarify existing laws? In some cases the answer to this is obvious. When we see a law requiring senators to collect the recruit tax followed by another returning such duties to the curials who did it initially, it is clear that the first law was an innovation.[49] There are also examples of the opposite: when we see a law requiring the *navicularii* to prove their lost cargoes were genuinely lost due to bad weather it is clear that this was modifying an existing practice.[50] Since both types of law

[48] *CTh*. 7.9.1 (340), 7.9.2 (342), 7.9.3 (393), 7.9.4 (416); Ps-Josh. 93 [311]; as mentioned in Jones, *LRE* 631-632, among other places.
[49] *CTh*. 11.23.1 (361), 11.23.2 (362).
[50] *CTh*. 13.9.1 (372).

were clearly present, there can be no universal methodology applied to all of them. Conclusions must be reached for each law individually.

The law codes are also filled with many other potentially difficult issues. The dating of laws, for example, can be perilous. Many of the dates given for key laws are wrong, as are the titles given for the addressees.[51] Salway has argued strongly that this is because many of the laws add on the recipients' subsequent titles.[52] This means that any reconstruction of prefectural or other high officials' careers based on these laws is potentially unreliable. These issues shall be confronted as they arise.

This question of chronology can be very important. When we have a papyrological military archive from the reign of Constantius II that seems to show the systematic violation of the rules laid down by Valentinian and Valens, does that mean that the laws were being violated or that they had not been put in place yet? Different preconceptions of the purpose of these laws will come to widely different conclusions.

The other large issue with using laws as evidence is that they assume a large amount of background knowledge on behalf of the recipient. Anyone operating in one of the legal posts of the empire would have taken for granted many basic background facts that we do not now have access to. The most obvious examples come when the emperors state that a matter shall be "left to tradition" but there are many other parts of the commissariat system that we are given no guidance on because it was assumed that the readers would understand.[53] In many cases we will not even know that there are assumptions being made with which we are unfamiliar.

3.2 Papyrological Evidence

Aside from the law codes our chief source for the functioning of the Roman commissariat is found in the papyrological finds recovered from rubbish tips in Oxyrhynchus and other sites, mostly in Egypt. These sources provide a completely

---

[51] Jones, *LRE* viii.
[52] Salway 1994, 112-115.
[53] e.g., *CTh*. 1.12.7 (400).

different form of evidence from the law codes. While laws outline the way in which the system is supposed to work, papyri detail the way that the system functioned in reality.[54]

The administrative documents recovered have largely been concerned with matters of taxation. This includes references and instructions to the liturgical officials involved in collection and transport. One of the most useful is a collection from Aphrodito which contains not merely tax records but the account of a dispute between local landowners and officials from the local government.[55] We have few military papyri, the most important example being the Abinnaeus Archive which is of enormous value for the reign of Constantius II.[56] The Nessana archive from Palestine also has useful information on military administration from a wider time period.[57]

The disadvantages of tax documents recovered amongst papyri is that they are formulaic documents designed to convey information efficiently to men who understood the purpose and intentions behind the information. Even more than with legal evidence, there are a range of preconceptions that the writers and recipients of these documents would take for granted. They were not, after all, intended to inform the readers of the way in which the taxation system was structured, but instead were meant to provide information that could be understood within that system. For that reason, papyrological evidence is very difficult to use without relying on the law codes for comparison.

3.3 Literary Evidence

Our direct literary evidence for the functioning of the taxation system is sporadic. We do have some accounts of individual officials. Ammianus Marcellinus describes the

[54] There has been some debate over the typicality of Egypt as a province. Finley 1985, 15, 30-37, expressed his view that Egypt was an aberration but there has been a substantial reaction to this viewpoint and most scholars since then have reached the opposite conclusion. See Bowman 1976, 160-161; Rathbone 1989; Bowman & Rathbone 1991, 110-127; Rowlandson 1996, 1-7; Bagnall 2005. While there were differences between the provinces, they were considered similar enough for a second-century agricultural writer to generalize about all provinces (Hyginus; Duncan-Jones 1990, 188).

[55] The Aphrodito papyri are split across several different collections, but the most useful for the current purposes are *P.Cairo Masp*. 1.67002, 1.67024, 1.67060, 111.67283; *P.Lond*. 5.1674.

[56] *P.Abinn*.

[57] *P.Nessana*.

actions of a corrupt *actuarius* in the context of a military revolt and also the execution of a *curialis* for being late delivering supplies to the army.[58] Higher ranking officials such as governors and praetorian prefects appear more frequently, although their services are often given as generalizations. Aurelius Victor has a long complaint about the evils of *actuarii* in the middle of his account of Diocletian's reign.[59] In some cases we are reliant on the literary sources for most of our information. It is only from historians like Pseudo-Joshua and Procopius that we know of the expansion of supply prefects.[60]

While these examples may tell us much about the perceptions of commissariat officials and provide a few individual examples, they are not very informative about the role that these officials were supposed to take. Outside the praetorian prefects and other high officials, we must refer to the law codes to understand where these officials fit into the system of supply.

Other literary works can provide information about supply matters. One very useful example is Julian's *Letter to the Athenians*, which describes the extent of Constantius' preparations for war as it justifies Julian's decision to rebel against him.[61] Individual letters from prolific writers such as Libanius, Paulinus of Nola, and Synesius contain information about local curial officials and the operation of the taxation system.

The most useful literary source for the organization of the prefecture is John Lydus' *De Magistratibus*. In it, he provides many details about the system and gives us more detailed and practical guidance as to how the office operated. Any reconstruction of the praetorian prefecture has to rely heavily on the evidence he provides. On the other hand, Lydus' detailed description of the prefecture's structure is mainly concerned with the legal side of the prefecture. The officials on the taxation side are dismissed as essentially jumped up clerks.[62]

---

[58] Amm. Marc. 23.5.6, 25.10.7.
[59] Aur. Vict. 33.13.
[60] *CJ* 12.8.2.4 (440-441); Proc. *BP* 1.8.5, 2.10.2; Proc. *BV* 3.11.17, 3.15.13, 4.16.2; Ps-Josh. 54 [281].
[61] Jul. *Ep. ad Ath*. 286b.
[62] Lydus, *Mag.* 3.35.

These are all isolated examples, and, John Lydus aside, none of these sources provides as clear an account of commissariat duties as can be found in the legal texts.

3.4 Epigraphic Evidence

Epigraphic evidence for the Roman commissariat is rare. We do have a number of inscriptions which refer to the praetorian prefects, but there are almost none that contain information about relevant curial posts. In Benet Salway's words, late antiquity is an "epigraphic desert" for municipal inscriptions. Inscriptions in general declined throughout late antiquity, starting in the late third century.[63] Before this point there are some inscriptions of great relevance to curial supply methods, most notably a series of five inscriptions in Lydia describing tax collection under Philip the Arab.[64] With a few key exceptions (most notably the examples gathered in Rizos' 2013 article on the centers of late Roman military supply network in the Balkans), the epigraphic material is not a major component of our sources.[65]

3.5 Archaeological Evidence

Since the commissariat was an administrative unit it has left little direct impact on the archaeological record. This was one reason why A.H.M. Jones underused archaeological evidence when writing his famous monograph focusing on the administrative system of the later Roman empire.[66] Jones has been justly criticized for his failure to incorporate archaeological evidence and the past fifty years has shown a variety of ways in which archaeology can have an impact on the issues he dealt with.[67] While not of much help in reconstructing the administrative structure, archaeological evidence can often be useful for other aspects of this subject. It is very useful for identifying the

---

[63] MacMullen 1982, 244-246; Salway 2014, 364-365.
[64] Hauken 1998 35-57 (Ağa Bey Köyü), 58-73 (Kemaliye), 162-168 (Kavacık), 244-246 (Demirci), and 247-250 (Kassar). Also see Elton 2005, 289-304.
[65] Rizos 2013, especially *CIL* 3.4180.
[66] As he admits himself in Jones, *LRE* vii.
[67] Ward-Perkins 2008, 203-206.

presence of soldiers in cities, for example, or providing details about the types and size of baggage animals and ships used to transport supplies.

The most relevant archaeological evidence we have comes from Roman granaries. Examples of granaries, both civil and military, are known from throughout the Roman world during the era in question.[68] Many cities throughout the Roman world dedicated a substantial portion of room to granary complexes. Ostia is full of granaries to handle the import of food for the city of Rome and Rome itself has some of even greater size.[69] On the other side of the empire, a whole quarter of the excavated portion of Caesarea is occupied by granaries.[70] Most cities would have contained storage space for grain, even if not on so vast a scale. In addition to these civic granaries are fortified storage depots found in places like Veldidena and Dichin. These sites are often located in isolated areas where there was no convenient city and are thus not as built over as granaries from other cities which now form part of the foundations of convents (Trier) and dovecotes (Diyarbakır).[71] Veldidena is now a part of modern Innsbruck but Dichin is still in an isolated area near a Bulgarian village. In addition, all permanent forts would have contained a military granary to enable the soldiers stationed there to survive if the enemy cut their supply lines.[72] These granaries are often the most easily identifiable parts of the fort.

The most obvious value of such sites is that they can give us quantifiable figures for the scale of Roman storage methods. While calculations of the scale can vary depending on the assumptions made, the total area contained does provide clear limits for estimates of the holding capacity of granaries.[73] This can prove a guide to the size of the force being supplied from the granary. If it does nothing else, archaeological evidence can serve as a useful check on the figures provided in our other sources. The locations of these granaries can also tell us much about the supply lines and focus of the Roman army

---

68 See Rickman 1971 for a general overview of the subject.
69 Hermansen 1982.
70 Patrich 2011, 225.
71 Bell 1982, 104; Clemens 2001, 166-171.
72 An example of a fort being used as a supply base can be found in South Shields. See Dore & Gillam 1979, 41-54; Bidwell & Speak 1994, 22-23.
73 See pages 127-130.

for the period and region in question. The granary at Dara was clearly able to feed a large army and served as a forward supply base for the Roman army of sixth century Mesopotamia.[74] In a similar way, the traceable spread of pottery can help to demonstrate supply lines and provide finer detail about the nature of Roman supply methods for other components of the military diet.[75] Organic remains can also tell us something of the composition of Roman rations and their likely points of origin.

The fort at Dichin provides some very different information. It has far too large a granary complex for the size of the fort and must have been used as a supply base, yet it is fifty miles away from the Danubian frontier and close to a major city which seems better placed to handle such supply duties. This suggests that the fort was doing something very different from examples elsewhere in the empire and may indicate differences in the system of supply collection of Thrace that are unrecorded in our written sources.[76]

4. The Scale of the Problem

4.1 Army Size

Before discussing the methods used to supply the troops it is important to understand the numbers that would need supplying. Of necessity much of the discussion on army supply will not include references to quantitative data since such details are not generally preserved in our sources. For that reason the general order of magnitude needs to be kept in mind from the beginning.

Estimates for the total army size in the fourth century vary. John Lydus provides the oddly precise figure of 389,704 for Diocletian's army.[77] Agathias claims there were 645,000 men in the army during the fourth century, which lines up with Jones'

---

[74] Whitby 1986, 750.
[75] Whittow 2013, 138.
[76] Poulter 2007.
[77] Lydus, *Mens*. 1.27.

calculation based on the *Notitia Dignitatum*.[78] In either case, the number of soldiers who needed to be supplied by the state was in the hundreds of thousands.

The soldiers in this army were divided up between the *limitanei* and *comitatenses*. The former were garrison forces responsible for manning the forts across the frontier provinces while the latter were more mobile and formed the core of campaigning armies. The proportion of forces dedicated to each role is going to vary depending on the estimates accepted for the army and unit sizes. Absolute numbers for garrison forces are impossible to state with certainty. The *limitanei* were generally posted in small groups and were more spread out across the empire.[79]

For an army on campaign we have a better account of numbers, although the reliability of our sources is often questionable and whether the sizes recorded are to be trusted can be an arbitrary decision.[80] For example, there are four different sizes given for Procopius' army during Julian's Persian campaign, ranging from Magnus of Carrhae's 16,000 (via John Malalas) to just under twice that in Ammianus.[81] The most obvious explanation for this is that every number recorded (with rare exceptions) is in fact no more than an estimate.[82] Since this is a generalized discussion of common army size, estimates which provide us with a scale are as good as actual figures, provided they are at least approximately correct. Since all four sizes in this case are similar in scale, we can be reasonably confident that the army was somewhere in this range.

The most obvious figures to suspect of exaggeration are at the upper end of the scale. Four armies across the fourth century are recorded as containing more than 100,000 men. None seem plausible. Maxentius, who never controlled an area encompassing much more than Africa and Italy, is given 188,000 men for his war against

---

[78] Agath. 5.13.7; Jones, *LRE* 679-684.
[79] Nicasie 1998, 67-74.
[80] Nicasie 1998, 202-207.
[81] Amm. Marc. 23.3.5 (30,000); Malal. 13.21 [329] (16,000); Lib. *Or*. 18.214 (20,000); Zos. 3.12.5 (18,000).
[82] The source with the strongest claim to being an accurate figure is the Chronicle of Pseudo-Joshua Stylites, which is so precise in several areas that it has been considered to have come from the official account of the campaign (Howard-Johnston 1995b, 166 n. 13). His precision is also present in the amount of bread baked for the army (Ps-Josh. 54 [281], 70 [295], 77 [300]), for which an accurate account of the army's size would be necessary.

Constantine.[83] The other three 'super armies' come from the same source (Zosimus) and are the forces of Constantine and Licinius.[84] There is no reason to assume that the numbers for these are any more reliable than those for Maxentius. This sort of exaggeration reflects a normal human desire to enhance the scale of important events, which is particularly easy to do for battles that happened a long time before.[85] It is not unknown for rulers (or any soldier) to expand the scale of their victories for propaganda purposes and just plain pride, even in the modern era. Napoleon, for example, was so prone to exaggerating the scale of even his greatest victories that his people stopped believing him.[86] For great battles far in the past it would have been even easier to add a few tens of thousands onto the troop list.

The general picture from our sources is more plausible. Vegetius recommends including 20,000 infantry and 4,000 cavalry in a large army.[87] Vegetius, as a writer advocating practical military reform, would have been extremely foolish to exaggerate the size of forces available to the emperors, although of course he could still be mistaken. However, the majority of armies in the fourth century are recorded as being in the 20-30,000 range. This receives further confirmation towards the end of the period being covered with Maurice's *Strategikon* treating 24,000 men as the transition between large and small armies.[88]

The size of armies in the fifth century is far less clear. 4,000 men were apparently considered enough to reinforce Ravenna against Alaric in 410.[89] Ricimer's successful revolt later in the century (472) shows a similar number with 6,000 men.[90] These numbers probably do not represent the maximum size of armies during this period, but the fact that only a few thousand soldiers were capable of changing the course of the

[83] Zos. 2.15.2.
[84] Zos. 2.22.2; 2.26. This is also more than four times larger than the armies recorded for their previous encounter in 317 (*Anon. Val*. 1.5.16).
[85] For Zosimus, Constantine's reign was two centuries ago, but even for his main source, Eunapius, it was half a century ago.
[86] Roberts 2014, 92.
[87] Veg. *Mil*. 3.1.
[88] Maurice, *Strat*. 12.9.
[89] Olymp. Fr. 10.1.34 (Sozom. 9.8); Zos. 6.8.2.
[90] Prisc. Fr. 62.5-7 (Joh. Ant. Fr. 207).

entire empire suggests that we are not looking at armies any larger than about 15,000 at most. This would be a marked decline in Rome's ability to concentrate its power.

This decline in army size was not as significant in the Eastern empire. We only have two numbers given for the size of an eastern army in this period. The army sent against the Vandals in North Africa was supposedly 100,000 strong, which is extremely implausible and in fact larger than the total number of men, women, and children recorded for the Vandal population.[91] More likely to be accurate is a 2,000 men force sent to Egypt, but this was a force with limited objectives and there is no reason to see this as representative of Eastern forces.[92] The Eastern Empire of the sixth century was able to raise forces in the tens of thousands and there is no real reason to doubt that they could field similar forces throughout the fifth century.[93]

4.2 Rations

The number of calories needed to sustain an active male of military age engaging in a strenuous lifestyle will not vary tremendously across different eras. Engels cites the US Army's RDA of 3,600 calories for a nineteen-year-old soldier as the most relevant to the caloric requirements of a Roman soldier, but this number cannot be used without some qualification.[94] Roman soldiers enlisted for 25 years (as opposed to the 4-6 years of modern armies) and so the average soldier would have been substantially older in addition to being shorter in stature than their modern counterparts.[95] Then too, these are the recommended daily allowances, not the minimum ones. Using these considerations,

---

[91] Proc. *BV* 3.6.1. It was in Procopius' interests to increase the size of previous attempts since this only increased the glory of his hero Belisarius achieving it with only 15,000 men. For the size of the Vandal population see Proc. *BV* 3.5.25, *Anec*. 18.6; Victor Vitensis, *Hist. Pers. Afr. Pr*. 1.2. For problems with this figure, see Goffart 1980, 231-234.

[92] Prisc. fr. 28.1.14 (Evag. 2.5).

[93] E.g. the 52,000 strong army in 504 (Ps-Josh. 54 [281]). While the sizes of the major Eastern forces of the fifth century contain no figures (other than the previously mentioned joint Vandal campaign), the Persian army that invaded Roman territory in 421 was recorded as containing 40,000 men (Tabari [868]). Since the Romans started the war with an invasion of their own they must have had comparably sized forces.

[94] Engels 1978, 3, is insufficiently cautious when using these figures. Using the RDA as the minimum calories required along with a highly minimalist view for the carrying capacity of ancient beasts of burden he arrived at the conclusion that armies could travel no further than four days without resupply.

[95] Gilliver 2007, 186-187; Whitby 1995, 83.

Roth has calculated an RDA of 3,000 calories, with the soldiers often making do with less while on campaign. Late medieval and early modern armies could survive on rations of only around 2,500 calories on campaign, and this is plausible for Roman soldiers as well.[96]

Of course, defining the daily requirements of a soldier in abstract terms of caloric intake is not the way that the Romans themselves would have approached the subject. Instead, they viewed rationing in the more practical terms of how much of each food item their soldiers needed to receive every day. The main source of carbohydrates in the Roman diet was acquired through grain baked into bread. Records of ancient grain rations are scarce but not nonexistent. In the time of Herodotus we see the Persian soldiers being given a ration of one *choinix* (1.1 L) per day.[97] Two centuries later Polybius was to record the rations of mid-Republican Rome as 2/3 of an Attic *medimnus* (35 L) per month.[98] This also works out to be a *choinix* a day, or in Roman terms two *sextarii* a day and four *modii* a month.[99]

What that means in terms of weight requires a more careful analysis. The weight of wheat varied dramatically depending on where it was from. For that reason, estimates on the total weight of the Roman daily ration vary from 1.4 kg to half that amount.[100] Based on the numbers provided by Pliny, the actual weight should be 404 grams per *sextarius* for wheat from Gaul and the Chersonese, 421 for wheat from Egypt and Sicily, and 439 for wheat from Africa.[101] For ease of calculation the average of 421 grams (or 1.3 Roman pounds) will be used throughout. The standard ration of two *sextarii* would thus have weighed about 842 grams.

---

[96] Davies 1963, 139; Roth 1999, 7-13.
[97] Hdt. 7.187.2.
[98] Polyb. 6.39.13.
[99] Roth 1999, 18-19.
[100] Goldsworthy 1996, 291; Roth 1999, 23-24.
[101] Plin. *NH* 18.12.67-68. That is 20 lb per *modii* for Gaul and the Chersonese, 20 ⅚ for Alexandria, and 21 ¾ for Africa and Sicily, assuming a weight of 323 grams per Roman pound. Pliny's numbers are compatible for the weights recorded in papyri. See Foxhall & Forbes 1982, Jasny 1944, 42-46; 82-87; Rathbone 1983, 265-275.

The Roman grain ration was traditionally distributed as is and it was up to the soldiers to grind and bake it themselves.[102] This remained true throughout the Republic and early Empire. By the late empire the responsibility for baking bread had passed onto the members of the bakers' guilds of the province, although there is evidence that soldiers did bake some of their own bread while on campaign.[103] The type of bread doled out in this way would vary. All bread was whole wheat during Roman times since they did not have the ability to remove the bran and germ layers. Such bread had a short shelf life and would need to be eaten within four or five days of being baked, which limited its utility when the army needed to advance rapidly and avoid fires.

While the Roman army was generally able to use this form of bread they also had a form of hardtack that later Romans knew as *bucellatum*.[104] *Bucellatum* was a low-moisture bread that was baked twice.[105] This hardtack could last for months or years and weighed about 3/4 as much. This means that while a standard ration of grain would weigh 842 grams as bread it only weighed 632 as *bucellatum*, while retaining the same calories and nutrients.[106] This hardtack could be prepared in advance and used on those times when the army needed to advance without delay. On campaign their rations were apparently mixed. Constantius ordered the soldiers to be fed hardtack for two of every three days and regular bread for the third.[107] The hardtack would have been baked in advance.

Roman rations were not limited to grain, although that would have provided the larger portion of their meals and is the most frequently mentioned component. An Egyptian papyrus from 399 recording the receipt of supplies from an *actuarius* provides us with direct numbers for the Roman meat and wine rations: one *sextarius* (546ml) of

---

[102] Roth 1999, 44-50.
[103] *CTh*. 7.4.2 (358/360), 7.4.6 (360), 11.16.15 (382), 11.16.18 (390), 7.5.1 (399), 7.4.28 (406).
[104] Proc. *BV* 3.13.15; Dalby 2003, 54. It was similar to the biscuit *paximadi* still sold in Crete today, although it was made using wheat rather than barley.
[105] Proc. *BV* 3.13.12-20.
[106] Roth 1999, 51-53.
[107] *CTh*. 7.4.4 (358?), orders the army to be given *expeditionalis annona* for two days and bread on the third. The meaning of *expeditionalis annona* is made clear in 7.4.6 (360), which states the 2/3 hardtack to bread arrangement more clearly.

wine and one Roman pound (323g) of meat per day.[108] A ration receipt from 563 doubles these numbers and includes three pounds (969g) of bread, and 1/8 a *sextarius* (68ml) of olive oil.[109] The reason for the double rations of meat and wine is unclear, but it is unlikely to be that the soldiers have traded fodder rations for food as Jones suggests.[110] Anyone cheating with their rations should have at least attempted to obscure the truth from contemporaries. More likely the double rations are intended for two days which means that these numbers should be halved.

These grain rations are about one and a half times those recorded in military texts. This may be due to the more constrained nature of campaigns. The *Strategikon* considers 1-2 pounds (323-646g) of bread a standard emergency ration for a cavalryman.[111] This is apparently referring to regular bread (ἄρτος) as opposed to the hardtack (παξιμάδιον or βουκελλατον) that might have been expected. Leo VI's later (c. 900) *Taktika* recommends using one pack mule for every sixteen infantrymen (*contubernia*) over a ten-day period, which amounts to about 625 grams of total rations a day.[112] These numbers may assume that the soldiers carried some supplies themselves or the soldiers may have been expected to supplement these rations through other means. Leo's manual certainly seems to require it as he then states that the number of soldiers supported by a single pack mule can be doubled in an emergency, which would bring the already unsustaining meal well below subsistence level. The rations suggested in the *Strategikon* sound closer to the regular rations expected by Roman soldiers. Alongside the bread is included boiled meal or meat, water, and barley for the horse. While lower than the garrison rations, these are reasonable numbers for a soldier on campaign.

The bread ration was thus just slightly under the grain ration for the Republic and early Empire while on campaign and slightly over while in garrison. The difference is likely due to the transition from issuing grain directly to prebaking it into bread or

---

[108] *CPL* 199; Zuckermann 1988, 285-286.
[109] *P.Oxy* 16.2046 (563).
[110] Jones, *LRE* 629.
[111] Maurice, *Strat*. 7.10.3-4. The *Strategikon* earlier (5.4.5) recommended bringing along 20-30 pounds of βουκελλάτον when leaving basecamp.
[112] Leo, *Tact*. 6.29; Haldon 1999a, 288.

bucellatum. It is not as easy to measure bread by volume as it is grain so the easiest way to determine quantity was by weight.

Even at the lowest possible estimate for the size of the army as a whole, the government would need to provide over 350,000 kilograms of bread a day in rations. Assuming an upper estimate for the army the number is over 550,000. That is 130-200 million kilograms annually. Taking into account the number of officers and high officials who received multiple rations the real number would have to be significantly higher than even that. This was quite a strain to put on a preindustrial economy.

In terms of the field army, an army of 10,000 men would consume 8,420 kg a day. If they carried twenty days' worth of rations with them, as most campaigning armies did, that would require 168,400 kilograms. 20,000 men would need 336,800 for the same number of days. 30,000 would need 505,200, 65,000 would need 1,094,600, and 100,000 would need 1,684,000, or a staggering 84,200 kg (the equivalent weight of a bulldozer) a day. These numbers can be used to show the clear limitations of a campaigning army.

5. Research Questions

The basic question that this thesis seeks to answer is how well the late Roman supply system functioned. This is a broad question and one that can have multiple possible approaches depending on the criteria used to judge the system's success/failure. The approach adopted here will be to assess the supply system's success based on how well it met the twin goals of efficiency and effectiveness. These two elements of a well-functioning commissariat are often conflated but have distinct characteristics: effectiveness is the basic ability to keep the army supplied while efficiency is the ability to operate the supply system with a minimal amount of wastage. A commissariat which is able to keep soldiers supplied only at the cost of ruthlessly inefficient exploitation of the local population cannot be said to be functioning properly. Likewise, a supply system that is efficient and undemanding on the local populace but fails to reliably provide the army with provisions cannot be considered successful. It is through these criteria that this question will be confronted.

The main research questions are therefore how effective and efficient the Roman commissariat was in sustaining the army. Discussion on the quality of the commissariat in the past has generally conflated these two issues and this is a problem which will be addressed. Discussions of the Roman supply system has generally focused on effectiveness to the exclusion of efficiency.[113] If the efficiency of the commissariat is addressed at all it is as part of broader considerations of corruption in the late Roman bureaucracy.[114] Discussion of neither of these topics directly confronts the effectiveness/efficiency dichotomy. How did the Romans balance the two demands? What happened when they came into conflict?

Reconstructing the relative success and failure of the Roman commissariat naturally requires questioning how consistent this system was over the centuries. The most important aspect of this is the question of how the fourth-century commissariat came into existence. The praetorian prefect of the first century AD would not have seemed the natural figure to assume responsibility for taxation and army supply, yet it is clear that this is what happened. How and why did the prefect come to gain the powers for which he was known in late antiquity and how did he lose the military role that he originally held? Investigating the stages in this process can help to understand why the system developed in the way that it did. This is connected to related issues like the creation and elevation of vicars and the establishments of supraprovincial territories such as dioceses and the prefectures. The reorganization of the late antique Roman administration cannot be divorced from the late third/early fourth century context and is essential to understanding why the prefectures ended up assuming the form they maintained for the next 300 years.

A diachronic approach also raises questions about relationships to earlier scholarship. Since all the major works on Roman logistics concern themselves with the early imperial or late Republican period it is worth asking how similar this was to the system of late antiquity. Did the late antique commissariat represent a significant change and can we draw any conclusions about earlier supply methods from the late Roman

---

[113] The useful discussions in Lee 2007b, 93-98 and Whately 2013, 211-220, for example, are almost entirely concerned with effectiveness.
[114] MacMullen 1988, 152.

evidence? Since the fifth-century author Vegetius is commonly cited as evidence for early imperial armies this is a question that could significantly impact study of the earlier period.

Chronological considerations also extend in the opposite direction. Were Roman supply methods the same throughout late antiquity? What changes did the commissariat undergo and how significant were they to efficiency and effectiveness? Certain generalizations are unavoidable in the discussion of such a broad topic, but a diachronic approach makes it possible to identify certain trends in the system's operation. These differences are not limited to temporal changes but geographical ones as well, for the system was always one that made allowances for regional differences. How far did these differences extend and how far can we make generalizations about the empire as a whole?

A related question is whether the effectiveness and efficiency of the commissariat remained consistent over the centuries of late antiquity or whether it exhibited evidence of decreasing effectiveness. The collapse of the West in the fifth century and the near-collapse of the East in the seventh are proof that the military and political power of the state declined during this period. Is there any evidence that increasing difficulties in the effectiveness or efficiency of the commissariat contributed to military failures (perhaps as a result of a diminished administrative effectiveness) or was the collapse of the commissariat just an inevitable result of the empire's decreasing ability to function? Is there any evidence of reduced effectiveness or efficiency in the Eastern provinces where the political dysfunction was not as strong? What about the situation in the sixth century, where a series of reforms altered the tax-gathering process and the nature of local elites significantly? This is a question with relevance to a wide variety of topics.

To draw any conclusions about changes to the system it is necessary to consider who the officials were who ran the supply system. What were the duties of the curial magistrates who carried out the majority of the commissariat work? Where were they recruited from and how were they paid? This also requires answering the same questions about officials who have never been adequately discussed, such as the supply prefects of the sixth century. How did such a wide variety of officials, extending across several different sections of government, interconnect with each other and what did they do when there was a conflict?

6. Methodology and Outline

The intention of this thesis is to assess the effectiveness and efficiency of the late Roman commissariat through an in-depth reconstruction of its administrative structure. This approach will be prosopographical in nature where sufficient details exist to make such an approach worthwhile. If used carefully, a prosopographical approach can provide us with many details about the priorities and intentions of the emperors in appointing key positions. There are clear limitations to the types of conclusions that can be drawn from prosopographical evidence, most notably the danger of creating imaginary patterns based on overanalysis of insufficiently detailed sources.[115] To avoid this, the thesis will be open about what the sources do and do not say and, where possible, will examine the officials individually and in detail rather than only as part of a larger group.

In the absence of detailed records for individual officeholders, the efficiency of the commissariat can only be assessed through an understanding of its administrative structure. The nature of the various commissariat positions and their interaction with one another can show whether there was any overlap and whether this impacted the efficiency of the system negatively. The system used by the Romans was not uniform at all levels and its efficiency and effectiveness could vary depending on the officials and regions involved. An administrative approach alone cannot determine effectiveness. The effectiveness of the commissariat can only be judged based on broader mentions of supply failures and difficulties. What an administrative approach can do is provide further details about the reasons for Roman effectiveness or ineffectiveness.

The administrative reconstruction will be based around an analysis of the key positions associated with the commissariat. This approach will consider prosopographical

[115] The most notable critiques are those of Carney 1973 and Graham 1974. Many of the dangers pointed out in these works are based on the reliance on argumentation based on postulated social and familial connections, while the conclusions in this thesis are instead based on historically-attested career paths. This does not, of course, remove all potential for overstatement.

questions such as the backgrounds and career paths of these officials in order to better understand their ties and the nature of their service. Individual officeholders are rarely known in detail, but it is possible to draw some general commonalities behind their backgrounds. The position of praetorian prefect is of pivotal importance to any study of the commissariat and as such requires a unique level of consideration. Since the prefect was responsible for the overall management of the commissariat, close attention needs to be given to the nature of his duties and the major changes that the office underwent over time. The origins of the office play a particularly large role in determining the prefect's role in late antiquity, which requires a prosopographical approach to better understand the prefect's transition from a military post with some judicial and administrative functions to a purely civil role.

Related positions such as those of the supply prefect and *quaestor exercitus* also require special attention. We have so little evidence for the general nature of these offices that only a prosopographical approach can allow us to understand them. By considering each known officeholder individually, the thesis can avoid the risk of overgeneralizing and can detail the entire range of careers held by those known individuals in the posts. Since the period covered is large it will also be necessary to follow the chronological progression of these offices and the changing nature of the positions. Similarly, the wide geographical focus will require a careful consideration of regional differences and distinguish carefully between the broad generalizations of the law codes and the more specific but Egypt-centric evidence from papyri.

To understand the logistical system of late antiquity and how it differed from the one that came before, it is necessary to examine the system of the early empire (particularly the administration) and see which elements are constant and which were innovations (Chapter 1). This will be done by examining various themes in early Roman supply methods (sources of supply, the officials involved in disbursement, and the extent to which control of army supply was centralized) and comparing them with the same themes in the later system. Identifying what officials were responsible for various commissary duties it will make it possible to track the evolution of this system throughout the third century. Given the praetorian prefect’s later role as supply chief, it is important to examine the role that office played as well, even when it is not strictly connected to matters of supply. The main question of this chapter is why the prefect developed into the new imperial supply official and when this change occurred. Since the changes the prefect underwent were so significant and intimately connected to the new system of provisioning, the evolving nature of the post and related offices will be discussed in detail. The position of prefect was prominent enough that it is possible to identify key moments of change and trace the direction in which the position evolved over the third century. By highlighting key changes it will be possible to identify broad shifts in imperial policy as the role of the prefect began to change. This can help to identify rationale for the shift and can also show whether this is connected with other elements of the fourth-century system such as the *annona militaris*.

In order to assess the effectiveness and efficiency of the commissariat it is necessary to understand the system in detail. The first and most obvious question is where the supplies that were issued to the soldiers came from. The chief source of supplies for the army was the land tax, administered by the praetorian prefect (Chapter 2). The officials involved in the collection of the land tax, from the high-level prefectural posts to the low level municipal and village-level ones, were the main officials composing the commissariat. This chapter will provide a description of the system's operation from the issuing of the indiction to the collection and shipment out of the villages. The distribution and storage of supplies was an essential and connected element of the process and shall be covered in the following chapter

Understanding this systems will require an administrative outline of all the major commissariat positions and their responsibilities as they existed during the fourth century. By necessity, this chapter shall be descriptive in nature in order to lay the groundwork for future discussion. Since the legal and papyrological evidence provide somewhat different accounts of the taxation structure this reconstruction will provide two separate accounts of the system's organization. Other sources of supply will also be considered, such as forced purchases, tribute, and the plunder of enemy lands. All these sources together provided food for the army.

Once the grain had been gathered it needed to be transported, stored, and distributed (Chapter 3). The process of doing so was closely connected to the process of raising supplies and relied mainly on the same officials. As with the raising of supplies, the main evidence for the officials involved with these aspects of supply shall be drawn from a close reading of the legal and papyrological evidence. Matters of transport and storage can also draw on information from outside sources. The scale and nature of Roman storage methods can be seen from the many substantial granaries which have been excavated. Some knowledge of the capacity, location, and use of these granaries is essential to understand the way that the supply system functioned. In order to understand the limits that such storage methods placed on the supply network it is necessary to identify the context in which these granaries were used.

There were several different methods of transporting the grain to these granaries. The most basic division was between land and water transport, but both networks supported a variety of different craft or vehicles. The carrying capacity, speed, and expense of each of these means of transport determined the manner and frequency with which they were used. Geography also played an obvious role. To determine the general capacities of various forms of transport use shall be made of comparative evidence from modern studies of pack animals as well as archaeological evidence for the size of the ships employed by the Romans. Distribution is the last consideration in this chapter, and while certain matters can be stated with certainty, the sources are almost entirely found in the law code, which provides only a very basic view into the details of what was clearly a detailed distribution system.

This chapter will also consider the requirements for the different types of forces that the supply system needed to provide for. This shall be done by dividing the evidence for military supply into various categories based on the destination that their resources were bound for. The two broad categorizations are those of stationary troops and campaigning troops. These can be broken down further into *limitanei* and *comitatenses* (both in garrison and in short-term winter quarters) and campaigns that took place within and outside the empire.

The Roman commissariat went through some significant changes in the fifth and sixth century (Chapter 4). There were three major changes to the system as a whole. The first was the attempt to change the origin of recruits for the key liturgical positions connected with the process. The second was the return of coin-based taxation and a monetary economy. The third change was the decline of the curials as a class and the loss of the main source of liturgical officials. The key question for consideration here is whether the system of the sixth century, when all these changes had occurred or were in the process of occurring, is functionally similar to that of the fourth century.

There were changes at the top of the commissariat as well, with two new prefectural positions being created in the fifth and sixth centuries. Rather than relying on the praetorian prefects to supply distant armies, a more localized form of prefect was created to supply armies on campaign. This period also saw the creation of the *quaestor exercitus*, an official with civil and military authority serving on the Danube, whose main responsibility was the supply of the army manning the frontier defenses. The nature and duties of these officials shall receive detailed analysis since this represents a major modification to the existing system. The supply prefects in particular are in need of such an approach since they have yet to be the subject of a detailed study. To understand these positions and their evolution a prosopographical approach will be adopted which considers the nature and likely reason for the creation of such roles.

The final chapter addresses the overall aim of the thesis: to determine the relative effectiveness and effectiveness of the commissariat (Chapter 5). How capable were commissariat officials of keeping the army provisioned and what were their limitations? How much wastage was required to achieve this level of effectiveness? These questions can only be answered by taking account of the information provided in all the previous chapters and placing it into a larger context.

It is possible to provide a qualitative account of the commissariat's effectiveness through close examination of Roman failure. There are few examples of such failure, but examining these accounts provides a context in which the supply system could fail and suggests potential limits. A careful search for references to supply shortages in accounts of the eventual collapse of both halves of the empire can also suggest whether this was a key factor. Determining the efficiency of the supply system can also be done through examinations of failure. These efficiency failures can be sorted into two categories: wastage and corruption. Efficiency and effectiveness were connected issues and an examination of instances where the two goals came into conflict can show the priorities of the officials in charge.

CHAPTER I: THE EVOLUTION OF THE LATE ROMAN COMMISSARIAT

1. INTRODUCTION

The supply system in late antiquity evolved out of the supply system of the Principate. While different in structure, there are clear lines of continuity between the two systems and it is possible to trace some aspects of the changes in a chronological manner. The main period of change was the third century, when the more regular Roman supply system broke down and the empire had to rely on emergency methods to keep its soldiers supplied. These changes became standardized in the early fourth century and developed into a new system of supply.

The largest changes to the Roman army supply during the existence of the empire were not to the rations but to the administration. The Republic and early empire were very effective at keeping their army supplied, but they achieved that through different officials and worked through a minimal (or possibly nonexistent) central structure. It is much easier to identify the central authority for army supply in the later Roman empire. By this time it was the responsibility of the praetorian prefects. This connection to army supply was not one of the original functions of the prefecture, which makes it important to examine the role of the early prefects and how they came to acquire these duties. The timing and purpose of this change can have an impact on any conclusions reached about the nature of the later commissariat.

2. SUPPLY METHODS UNDER THE PRINCIPATE

2.1 Raising of Supplies

As is true for the later empire, more original administrative documents have survived from Egypt than from any other province. Garrison soldiers in Egypt were fed out of the regular land taxes which were collected in kind. This taxation system was highly structured. The *praefectus Aegypti* had overall authority for it and was helped by subordinate officials called *strategoi*. Each *strategos* was in charge of a district called a nome, which he ran from the nome's chief city (*metropolis*). The *strategos* was responsible for determining the overall requirements of the *nome*. Under him was the *pragmatos* who worked out the amount required from individual villages and then the village authorities (*presbyters*) who collected the grain. Most of this grain would have ended up in the *metropolis* or even Alexandria, at which point it would be separated from the grain raised for non-military purposes.[116] In some circumstances collection was handled more locally. Barley (for fodder presumably) was collected from the villages by soldiers from the local unit which required it.[117]

Armies (particularly on campaign) could be supplied by forced purchases of grain as well. The wealthier inhabitants of the cities where troops were stationed were required to provide the goods as a *munus* (duty or obligation). The suppliers would be paid set rates for these items but they needed to make sure they had available the quantities that the army required.[118] For obvious reasons, this was not a popular obligation. Forced purchases also trickled down to the village level but it is difficult to trace forced purchases for field armies in the papyri. When the government made forced purchases (*coemptio*) they used the same terminology (πυρὸς συναγοραστικός) whether it was for the support of an army or not. Not every forced purchase can have been for military use, since famines and the *annona civica* for Rome would have claimed resources too, so references to πυροί cannot all represent field armies.[119] This is a factor which limits the use of papyri in the study of early Roman supply methods.

The process would have been broadly similar for other provinces, although it is unclear how those that paid their taxes in coin managed to support armies if they were stationed there. Either they must have paid a portion of their taxes in kind, or they purchased grain from the money raised in their regular taxes. Outside Egypt, the governors were usually less involved in the process of taxation and the task was under the control of imperial procurators instead.[120] In the second and third centuries the tendency

[116] Mitthof 2001, 37-42; Wallace 1938, 22-23.
[117] Jördens 2012, 57-59; Mitthof 2001, 40-44.
[118] Mitthof 2001,69-73.
[119] Mitthof 2001, 41-42.
[120] Eck 2000, 257.

was for these procurators to assume the duties of governing as well, at least for equestrian-controlled provinces.[121]

2.2 Disbursement of Supplies

There are few details known concerning the lower levels of the military supply system, but our knowledge does increase as we go higher up the ranks. The governor was in overall charge of seeing to the maintenance of the army in his province. How onerous a task this was would depend greatly on the province, as the number of soldiers to be maintained varied significantly. It was at the level of the governor that the dual tasks of raising and disbursing supplies were combined.

If there were multiple legions in the province then the next level down was filled by the commanders of the individual units. The legionary commander (*legatus legionis*) was expected to oversee all administrative and military matters related to the legion and this certainly included supply. *Auxilia* seem to have handled their own supplies, presumably under their own commanders.[122]

Under the legionary legate was an official called the *praefectus castrorum*, who was the legate's deputy and oversaw the implementation of his instructions. His areas of particular responsibility were maintaining discipline, supervising the giving of orders, seeing to the siting of the camp, and ensuring the supply of pack-animals.[123] Starting in the second century attestations of this official die out and are replaced by the *praefectus legionis*.[124] This change might be traced to the prefect's permanent allocation to a single legion rather than a camp, which could contain several legions. Vegetius provides the prefect of the legion with the control over pay and rations (anachronistically called the

[121] Pflaum 1950, 3-28.
[122] Le Bohec 1994, 38; Roth 1999, 271-272.
[123] Roth 1999, 272-273.
[124] Veg. *Mil*. 2.9-10, believes that these were two separate positions, with the prefect of the camp ranked below the prefect of the legion, but he seems to be confusing a change in titulature with an independent position.

annona) and this presumably represents further responsibilities that were carried out by the camp prefect.[125]

Lower level officers also had a role to play in the distribution of supplies. Legionary tribunes were responsible for overseeing the supply needs of the legion and it has been suggested that the *primipili* were as well.[126] Below them, the centurion's deputy, the *optio*, was apparently responsible for receiving and distributing supplies.[127] Certainly an official bearing this title was to become strongly associated with supply in the later empire.

Supplies delivered to the army were not given to the soldiers for free. Instead the costs were subtracted from the soldiers' pay by the cohort's *signifer*, who not only carried the standard but was responsible for financial matters as well.[128] This official was assisted by accountants who went by the title *actuarii*, a term that will also grow in importance during the later empire.[129]

Supplies were transported to the army by officials called *dispensatores* and *conductores*. The *dispensatores* or their representatives (*vicarii*) were responsible for delivering to army units the supplies that had been subtracted from the collected taxes. *Dispensatores* were slaves who were largely used to manage financial transactions between the state and individuals, but they also had responsibility for the pay of officials. The nature of the *conductores* is rather less clear but they were either tax collectors, tenants of state-owned land, or private individuals under a contract with the provincial administration.[130]

Additional roles may have been held by the shady group of soldiers known as *frumentarii*. These officials are mainly known as couriers and spies but they held some supply duties as well.[131] The extent of these duties is unclear, but there are clear

---

[125] Veg. *Mil*. 2.9.
[126] Roth 1999, 273-275.
[127] *P.Oxy*. 4.735; Mitthof 2001, 41, 307-313; Roth 1999, 26.
[128] *PSI* 9.1063 shows a centurion depositing money with the *signifer* (σημειοφόρος) for the new recruits. See also Von Premerstein 1903, 2 (esp. n. 2).
[129] Jones 1964, 626-628; Roth 1999, 275.
[130] Mitthof 2001, 38-39.
[131] Reynolds 1923, 183-186; Mann 1988, 149 n. 1; Sinnigen 1961, 66; Rankov 1990; Urano 2011, 186; Zuiderhoek 2009, 47. I discuss their role in more detail in a forthcoming article.

indications that they were involved in collection and transport of supplies. This may have included a supervisory function and was probably used to handle irregular supply issues.

The role of disbursement was handled by officials within the army structure itself. As a result of the standardized and uniform nature of these positions, the role of disbursement was to change less than the other areas of the commissariat.

2.3 Central Administration

The level of centralization in the early Empire's supply network is unclear. There seems to be a large gap between the provincial governors and the person of the emperor. It is difficult to say who the highest official overseeing supply was. Control of the imperial *fiscus* as well as responsibility for the supply of soldiers' weapons (and probably pay) fell under the responsibility of the *a rationibus*.[132] Under him there seems to have been an official known as *a copiis militaribus* (attested only in a few inscriptions from the reign of Claudius) who, judging from his title, was more exclusively involved with army food supplies.[133] This suggests that the department of the *a rationibus* had some level of oversight over the supply of the army.[134]

The extent of the *a rationibus*' authority on this matter is unclear, but was probably not very great. In fact, Van Berchem actually argued that there was no central department on logistical matters.[135] We can see some of the supra-provincial supply officers used on imperial campaigns, but there is no sign that these positions were permanent or even consistent. The titles of these positions could vary from ἐπιμελητὴς εὐθηνίας to *a copiis Augusti*/ἐπιτη δείων to *procurator arcae expeditionalis* to

---

[132] Stat. *Silv*. 3.98-105. See Roth 1999, 262-263; Millar 1977, 105–6; Weaver 1965, 145-154.
[133] *CIL* 6.28538 (Rome, 1st c.), 6.28539 (Rome 1st c.), 6.28540 (Rome, 1st c.); Roth 1999, 263.
[134] As concluded by Roth 1999, 264; Rickman 1971, 272. Bérard 1984, 300–301, disagrees and believes that the authority of the *a copiis militaribus* did not extend beyond Rome or the troops stationed with the emperor. It has also been suggested that the *praefectus annonae* was responsible for overseeing the supply of the Roman army, a conclusion based entirely on the fact that the term *annona* eventually came to mean army supplies (Hekster 2002, 60; Herz 1988a, 69–85; Herz 1988b, 70–81). Kissel 1995, 120–142, goes so far as to view the *cura annonae* that Augustus reluctantly accepted from the Senate as encompassing the authority to supply both Rome and the army. This seems a large conclusion to base on such little evidence.
[135] Van Berchem 1937, 143-146; Adams 1979, 136; Bérard 1984, 300-303.

praepositus copiarum.[136] The absence of any consistent terminology makes clear that these were extraordinary offices and not a permanent position. While this is certainly true for the supply officials used for imperial campaigns, this does not mean that the *a rationibus* was not in charge of supplying the garrison forces. Indeed, it would seem inadvisable to bring the official responsible for the supply of the whole army into the dangers and poor communication of a war zone.

The level of involvement from the central authorities in this administration was probably not very high. It was likely more a question of monitoring than control. The supply methods used in the provinces were often *ad hoc* and local. Provinces were extremely varied with some under the control of senatorial magistrates, and others run by equestrian prefects, legates, or procurators. Expecting consistency from such a system is unrealistic, and any official attempting to supervise it from Rome would have faced a gargantuan task. While oversight of the supply system by the *a rationibus* seems probable, it is unlikely that he was able to achieve, or even attempt, more than superficial control from Rome.

3. Third-Century Prefectural Careers

3.1 The Early Role of the Prefect

One of the major differences between the early and late imperial commissariats was the role played by the praetorian prefect. In the late empire, the prefect was the one responsible for overseeing the supply of the army. Since the prefect did not have that role initially, it is important to understand why and how the position evolved to acquire these responsibilities.

The praetorian prefects were created by Augustus in 2 BC to allow him to pass the day to day responsibilities of running his praetorian guard to someone else.[137] These officials were primarily recruited from the equestrian order (only two senators were ever

---

[136] *AE* 1911, 161 = *ILS* 9471; *CIL* C 6662 = *ILS* 1455; *AE* 1911, 7 = *AE* 1914, 248 (Bulla Regia, Numidia); *CIL* 2.4114 = *ILS* 1140; Mitthof 2001, 69.

[137] Absil 1997, 17-19; Bingham 2013, 19-21. Praetorian cohorts had been in operation for centuries before this date (Bingham 2013, 9-15; Durry 1968, 70-72).

made prefect, one being the son of the emperor).[138] Although a military background was not required to become prefect, their role was primarily military (or paramilitary). As the only officials allowed to bear arms in the presence of the emperor the prefects were in a uniquely trusted and explicitly military position.[139] The role of the prefect and of the guard grew during the first two centuries, and the prefect became the emperors' chief military subordinate when he went on campaign.[140]

The prefect could serve a useful role as a military officer even in the absence of the emperor. As early as 86 we see a prefect leading an independent army into battle when Cornelius Fuscus was ambushed and killed by Decebalus during Domitian's Dacian Wars.[141] Marcus Aurelius gave independent commands to the prefects Furius Victorinus, Macrinius Vindex, and Tarrutinius Paternus, during the Marcomannic Wars.[142] A few decades later the prefect Tullius Crispinus was sent to stop the advance of Severus during Didius Julianus' brief reign in 193.[143] While most prefects served alongside the emperor, their roles had the potential to expand.

It is unclear whether Augustus conceived of the prefect having any role apart from the command of his guard, but by the time of Augustus' successor Tiberius the sole commander of the guard, Sejanus, was already acting as imperial deputy while that emperor remained in self-imposed exile in Capri.[144] Although Sejanus was decisively suppressed, the use of a prefect as imperial deputy grew slowly over the course of the century. By the early second century the prefect could usually be found on the imperial

---

[138] Absil 1997, 32-33.
[139] Millar 1977, 123.
[140] Absil 1997, 61-65; Birley 1966, 166 (Verus), 212-213 (Marcomanni).
[141] Cornelius Fuscus led the armies during Domitian's Dacian War and was certainly on his own since he was ambushed and killed by Decebalus (Suet. *Dom.* 6.1; Dio Cass. 67.6.6; Howe 1942, 21). For more on this war see Jones 1992, 141; Oltean 2007, 51.
[142] Victorinus: Eutr. 8.12; HA *Marc*. 14.5; Birley 1966, 212. Macrinius: Dio Cass. 72.3.5; Birley 1966, 233. Tarrutinius: Birley 1966, 284.
[143] *SHA* Did. Iul. 6.3-4.
[144] While the power wielded by Sejanus may seem to suggest that the prefect was as powerful now as he would ever be, Sejanus' power was mainly achieved through his personal friendship with Tiberius (Seager 2005, 171-188). While it would be a mistake to underestimate the importance of his position in granting him that power, imperial favorites often proved able to wield an unbalanced amount of power regardless of their precise title.

council (*consilium principis*).[145] This could lead to a dangerous accumulation of power and unpopular emperors like Commodus were accused of letting their prefects run the empire while they indulged in luxury.[146] As a contemporary noted, the office and powers of a praetorian prefect were now "not too much different from the office and powers of an emperor."[147]

The career paths leading to this position varied but most praetorian prefects rose from military or para-military commands, whether it was among the praetorians, vigiles, or the regular legions. The character of the position changed during the second century, particularly after the reign of Hadrian, and the number of prefects promoted from civil posts rose.[148] In particular the use of procurators and city magistrates increased. This shift away from military prefects was highly visible in the reign of Commodus, who went through a string of civil prefects before giving the post over to one of his freedmen, Cleander.[149]

3.2 The Severans[150]

By the early third century the variety of career paths from which prefects were regularly chosen had widened. The Severans appointed at least three jurists as prefect, including the famous Ulpian, along with at least two from a lower level judicial

[145] Absil 1997, 77-80. The imperial council had existed in an unofficial form in the previous century, but it was not given an official status until Hadrian. Crook 1955, 79; Hammond 1959, 378-379.
[146] Hekster 2002, 61; Howe 1942, 12-14.
[147] οὐ πολύ τι ἐξουσίας καὶ δυνάμεως βασιλικῆς ἀποδεούσης (Hdn. 5.1.2, tr. Whittaker)
[148] Absil 1997, 42-43.
[149] Howe 1942, 65-68.
[150] A list of all the prefects known from Severus through the tetrarchy can be found in Table 1 (pages 58-62).

background.[151] Of course prefects continued to be appointed from military careers as well and Septimius at least tended to balance military officials with civil ones.[152]

The greatest source for praetorian prefects under the Severans were the prefects of Egypt. No fewer than seven held this post during the 42 years the Severan dynasty ruled Rome.[153] For comparison, there were only eleven prefects elevated from this post during the first 195 years of the prefects' existence.[154] That is nearly three times the average number. Administrative experience was presumably why praetorian prefects were chosen from ex-prefects of Egypt.[155] While the prefect did command the military forces in the province he would have had few opportunities to use them. Apart from the Jewish Revolt in 115-117 and a brief rebellion in 172 the province remained generally peaceful from its subjugation under Augustus until the Palmyrene invasion in 269.[156] While the prefects would not have much need of military experience they would have been required to oversee the complicated bureaucratic system that the Romans had inherited from the Ptolemies; a system now geared to producing grain to feed the population of Rome.[157]

Another common source of prefects were the *praefecti annonae*. Under the Severans, at least two prefects were selected from the ranks of these officials, with a third possibly having held the post.[158] This was another position connected with supply. This

---

[151] de Blois 2001, 136-142. Philip may have had a judicial career as well (see page 53). It is also possible that the jurist Paul was made prefect, but the only claim for this comes from *SHA* Alex. Sev. 26.5. Honoré 1998, 200-201, provides a good account of his known career and does not dismiss the possibility that the *HA* was correct. These jurists proved unpopular with the guard and at least one was assassinated by his own men (Dio Cass. 80.2b.2; *SHA* Alex. Sev. 51.4; Honoré 1982, 36-41).

[152] de Blois 2001, 136, believes that this was intentional, but it is unclear whether this truly was Severan policy. The list of recorded Severan prefects is incomplete, but for Alexander Severus we know of no military officers given the post and near the beginning of his reign he even appointed one prefect from a civil background with no colleague.

[153] Howe 1942, 68-77. See Table 1 (pages 58-62).

[154] Absil 1997, 44.

[155] Pflaum 1950 and 1960, argued for specialization among equestrian officials, which is rejected by Saller 1982. Brunt 1975, 132-142, rejects the idea of specialization for the prefects of Egypt based on a close prosopographical study, but Pflaum's argument has been defended in works such as Devijver 38-41. While not dismissing the influence of patronage, it is notable that a large portion of prefects of Egypt also held the post of praefectus annonae, the key administrative post on the opposite end of the Roman-Egyptian grain route, which suggests at least a certain amount of specialization.

[156] Dio Cass. 68.32.2; 72.4.

[157] Wallace 1938, offers the most comprehensive outline of the Egyptian taxation system during the Roman period.

[158] Howe 1942, 74-76 (Messius Extricatus [listed as …atus], Domitius Ulpianus, and Julianus Nestor).

official was in charge of importing supplies for the grain dole, which required administrative skill as well as a connection to the officials in Africa and Egypt who would supply most of the grain.[159] In fact, many prefects of the *annona* went on to become prefects of Egypt.[160] This means that many of the prefects of Egypt who went on to become praetorian prefects would have passed through this post as well.

The only prefect of the *annona* for whom we possess details of his advancement is Ulpian. A famous jurist he was appointed to the post of *praefectus annonae* upon Severus Alexander's accession. Shortly after this he was promoted directly to the post of praetorian prefect.[161] In this instance his appointment to *praefectus annonae* seems to be a clear example of the intentional use of this office as a stepping stone for the prefecture. Before this point, Ulpian had only held legal positions and nothing indicated that he was capable of handling the prefecture.

The trend to select prefects from these two officials is particularly notable with Severus Alexander. All of the prefects from his reign with identifiable careers held one of these two posts. In fact, the three successive prefects of Egypt between 219 and 223 were all promoted to praetorian prefect at the end of their service.[162] This seems to represent a definite shift in recruitment patterns for the prefect. For the first time administrative officials were completely dominant over military ones.[163]

3.3 The Gordians and Philippi

Officials connected with supply continued to dominate the prefecture into the time of Gordian III, although here they were chosen from lower ranking officials. Timesitheus, the prefect appointed to lead his Persian War, came from a procuratorial

[159] Garnsey 1988, 232-233.
[160] Capponi 2005, 29.
[161] Dio Cass. 80.1b.1; Zos. 1.11.2; *CJ* 8.37.4.
[162] Howe 1942, 75-76 (Flavianus Chrestus, Domitius Honoratus, Marcus Aedinius Julianus).
[163] This may explain why the praetorian guard was so restless under Alexander. See Dio Cass. 2b.2; Zos. 1.11.2-3.

background.[164] He had served as procurator in Arabia, Syria Palaestina, Pontus and Paphlagonia, Bithynia, and Asia, and acted in place of a senatorial governor (*vice praesidis*) in Germania Inferior. He had also served as manager of the emperor's private properties (*procurator rationis privatae*) and as deputy collector of the *patrimonium Caesaris* (*vice procurator patrimonii*) in Belgica and the Germanies, as collector of the inheritance tax in Rome (*procurator in urbe magister*),[165] as *logista thymela* (manager of the theaters), and was serving as procurator of Lugdunensis and Aquitania when he was elevated to prefect.[166]

As procurator of numerous provinces Timesitheus would have been intimately familiar with the functions of the system for collecting taxes. He would also have been familiar with raising supplies for the army. Under Severus Alexander, Timesitheus had held the post of *exactor reliquorum annonae sacrae expeditionis* (collector of the outstanding *annona* for the divine campaign) while serving as procurator of *Syria Palaestina*.[167] Indeed, Timesitheus' experience with army supply even appears in the *Historia Augusta*, which recalls Timesitheus as a great organizer of supplies who ensured that the border cities were sufficiently provisioned to withstand sieges.[168]

Gordian's next prefect, Marcus Julius Priscus, had similar experience before his rapid rise under Gordian. After serving as procurator in several provinces he was given command of two vexillations before being appointed administrator of Alexandria in place of the prefect of Egypt (*iuridicus Alexandreae vice praefecti Aegypti*).[169] After this he

[164] For more on the duties of procurators as governors see Pflaum 1950, 110-163; Millar 1964, 181-187; Millar 1965, 362-367.
[165] Boak 1915, 75-76.
[166] *CIL* 13.1807 Lugdunum. For a more detailed background of Timesitheus' career see Pflaum 1960, 811-821 (No. 317) and Townsend 1934, 71-74.
[167] *CIL* 13.1807.
[168] *SHA* Gord. 28.2.
[169] *CIL* 6.1638 = *ILS* 1331 Rome, is the main source for Priscus' career. The subject's name has been lost but the combination of *praefectus Mesopotamiae* and praetorian prefect are unique to Priscus and unlikely to belong to anyone else serving so close to this time. Pflaum 1960, 835, disagrees with this conclusion, arguing that the figure in the inscription would have risen too fast if it was Priscus since he would have to have been promoted through the *praepositus* of Gordian's I legion and two procuratorial positions to the vice prefect of Egypt all within about thirty months. This is disregarding what the inscription shows about his previous career however, which, while fragmented, clearly shows a number of other procuratorial posts. His rapid rise is no more absurd than that of Timesitheus, who was promoted directly to the prefecture from

held the post of prefect of Mesopotamia in c. 241/242.[170] This was a post of great importance since war was declared on Persia in 241 and the prefect of Mesopotamia would have been responsible for preparing the province for the arrival of the campaigning army.

The career of Priscus' brother Marcus Julius Philippus (the future emperor) is more of a mystery. While a military career cannot be ruled out it seems more likely that he came from a legal background.[171] There is an imperial panegyric included among the orations of Aelius Aristides entitled Εἰς Βασιλέα (To the Emperor). Identification of the emperor being addressed is uncertain due to the extreme vagueness of the oration, but it is often thought to be Philip.[172] The oration's emperor was not related to or chosen as successor by the previous emperor, he rose to the post when the empire was facing great difficulties, he held some high post with apparently empire-wide authority prior to his succession, he had a son, he had military success against the Germans (Κελτοὶ), annihilated an entire people (the Carpi? [text uncertain]), and resolved a war against the Parthians/Persians.[173] These are all elements of Philip's reign, some of them quite

---

a procuratorship, and the only oddity is the number, not the speed, of the appointments. This might be accounted for if several of these posts were held simultaneously.

[170] *IGRR* 3.1201 Philippopolis; *IGRR* 3.1202 = *ILS* 8847 Philippopolis.

[171] Philip's biographer Körner argues that he came from a military background since most prefects at the time did (Körner 2002, 71-75). As has been shown, this is actually the opposite of the truth. His use of *SHA* Gord. 28.4-5 (the only account to mention anything about Philip's career) to support his conclusion is also questionable since it relies on the timing of Philip's introduction rather than any specific statement. See also Huttner 2008, 187; Mennen 2011, 37; Pflaum 1960, 837, for examples of works assuming a military background for Philip.

[172] Behr 1981, 400 n. 1; Oliver 1978, 267-289; Swift 1966, 267-289. This lack of clarity can best be seen in the orator's description of the emperor's previous career. According to the oration, before his accession, "when [the emperor] held the rank which he happened to hold" (τεταγμένος ὅπως ἔτυχε ταχθείς) and was confronted with crime and wantonness, "he acted and planned in a way expedient for it" (ἔπραττεν αὐτῷ καὶ προεώρα τὰ συμφέροντα) (Ael. Arist. 35.13). Clearly statements such as these are not precise enough to base any firm conclusions on.

[173] Ael. Arist. 35.5 (previous emperor), 35.7 (difficulties), 35.13 (high official), 35.39 (son), 35.35 (Germans, Carpi, enemy beyond the Tigris and Euphrates). Other themes which seem in line with Philip's known policies are his moral campaign (35.27), his ending of tribute (which seems to be the meaning of the praise given to Philip's refusal to raise additional funds to pay tribute in 35.16), and particularly the repeated mention of his good counsel (εὐβουλία) in securing peace through diplomacy whenever possible rather than through military campaigns (about the only positive way of treating his resolution of Gordian's Persian war [35.32-34]). There are still some elements, particularly his extreme youthfulness (τηλικοῦτος [35.22]), which seem at odds with the 40-something Philip, but the oration as a whole is filled with so much hyperbole that it is not difficult to dismiss these as somewhat inept attempts at flattery.

uniquely so. It is difficult to think what other emperor could meet all these qualifications within the time period in question.

The identification of this figure as Philip is important since the oration does, in a limited way, provide some evidence for Philip's previous career. In speaking of Philip's background it makes repeated reference to his education, his philhellenism, and his exact knowledge of the law.

> He does not get his concept of justice from looking to other interpreters. But from his knowledge of what is truly fine and good, derived from his education, with his additional experience in the law, so that he is unaware of nothing written concerning it, he renders his decisions in all matters.[174]

The implication here and elsewhere in the oration is that Philip had been given a legal education and had some experience judging cases. It might be barely possible to connect this to his brief time as prefect, but given the orator's focus on it and the absence of any references to military positions held (even when such a reference would help his argument that Philip was saving the empire even before he became emperor) it seems hard to deny that this source believes Philip's previous career was a civil one.[175] Philip is also treated as an administrative-focused official once he becomes prefect. While Gordian went campaigning Philip was given control of the supplies being carried down the Euphrates. This was even the means by which he supposedly provoked the mutiny that lead to his accession. The *Historia Augusta* is explicit about this, stating that "by the intrigues of Philip, first the grain-ships were turned away and then the troops were moved to stations in which they could not get provisions (*annona*)."[176]

---

[174] τούτου δὲ αἴτιον ὅτι οὐκ εἰς ἑτέρους ὁρῶν ἑρμηνέας οὕτω λαμβάνει τὸ δίκαιον, ἀλλ᾽ αὐτὸς ἔχων ἐκ παιδείας τῶν ὡς ἀληθῶς καλῶν καὶ τῶν ἀγαθῶν ἐπιστήμην τὴν ἀπὸ τῶν νόμων ἐμπειρίαν προσειληφὼς, ὥστε μή τι τῶν γεγραμμένων διαφεύγειν αὐτὸν, οὕτως τὰς κρίσεις ποιεῖται περὶ πάντων (Ael. Arist. 35.18). See also 35.11-12, 35.16-20.

[175] One of the few known policies of his reign as emperor was the administrative reorganization of Egypt, which also hints at experience with civil administration. See Parsons 1967, 134-141; Thomas 1975, 111-119.

[176] "artibus Philippi primum naves frumentariae sunt aversae, deinde in ea loca deducti sunt milites in quibus annonari non posset" (*SHA* Gord. 29.2, tr. Magie). de Blois 2001, 140-141, suggests from this that Philip was "an expert in military logistics". This would tie in with a civil career for Philip but it seems somewhat perverse to argue that Philip was an expert in arranging supplies based on a quote indicating his

The question that immediately rises is whether this relative glut of evidence in Gordian's time represents a significant and lasting change to the position or simply a temporary adaptation fueled by a series of ambitious administrative prefects and a weak-willed child-emperor. Unfortunately, any arguments about lasting changes to the position run up against a near total absence of evidence. The next forty years are among the worst recorded in Roman history. Only nine prefects can be identified for certain between Philip and Diocletian, and their previous careers are often unclear.[177]

3.4 Pre-Tetrarchic Emperors

For the ten years following Gordian only the prefecture of Priscus is securely attested.[178] It is not until Valerian that we get another glimpse of the prefects. His reign seems to have seen a major shift away from the supply methods of Gordian and Philip. In the reign of Valerian there was an official called Macrianus who appears to have been in a high ranking economic position.[179] His contemporary Dionysius of Alexandria refers to

---

failure (intentional or not) to provide those supplies. Unfortunately, our sources know next to nothing about Gordian's campaign after it left Roman territory. Even simple facts like the location of Gordian's death are uncertain. These descriptions vary wildly from near Ctesiphon (*Epit. Caes*. 27.2; Sync. AM 5731.9-11 [681]; Zon. 12.18 [582]), to Zaitha (Amm. Marc. 23.5.17; Oros. 7.19.5), to near Carrhae and Nisibis (Zos. 1.18.3), to just outside the Roman border (Eutr. 9.2). It is telling that what is generally the most reliable source (Zosimus) is the furthest from the true location, which must have been somewhere on the Persian side of the Euphrates since Gordian was commemorated there by a large monument at Zaitha, south-east of Circusium, set up by the soldiers returning from campaign (Amm. Marc. 23.5.7).

[177] See Table 1 (pages 58-62).

[178] Reconstructing Priscus' career is difficult from the fragmentary evidence available (See *P.Euphr*. 1.1-5; Gascou & Feissel 1995, 65-84). Several different interpretations of Priscus' titles and authority have been suggested. Potter 2014, 235, considers him to be controlling the provinces of the East as corrector and prefect of Mesopotamia; Körner 2002, 55-59, says that he was acting as governor over several provinces (although he only views Syria and Mesopotamia as certain); Mennen 2011, 43, views *rector Orientis* as the same title as *corrector Orientis* later held by Odaenathus among others. Zos. 1.19, says simply that Priscus was given "command of the legions in Syria" (Πρίσκον μὲν ὑδελφὸν ὄντα τῶν κατὰ Συρίαν προεστήσατο στρατοπέδων), which is vague enough to fit any one of these interpretations. He was apparently killed while still prefect during Iotapianus' rebellion (Birley 1998, 68).

[179] *HA* Trig. Tyr. 12.1, records Macrianus leading a military career and being the chief of Valerian's generals (*primus ducum*) at the time of that emperor's capture. It even includes a letter from Valerian to the senate commending him for his bravery and skill in battles (12.15-18). However, the letter is clearly one of the author's many forgeries and the brief life contains so many contradictions when compared to better sources that it seems highly unlikely that it has preserved an authentic account of Macrianus' career. Gibbon 1776, 283, identified him as a praetorian prefect based on the *Historia Augusta*'s reference to *primus ducum*, and his statement has been accepted by some later works based on his authority (McGiffert 1904, 298 n. 8; Rawlinson 1885, 283).

Macrianus as serving ἐπὶ τῶν καθόλου λόγων […] βασιλέως, which seems to imply that he was *rationalis Augusti*, which was the name then used for the *a rationibus*.[180] The mid-sixth-century writer Peter the Patrician records his office as κόμης τῶν θησαυρῶν καὶ ἐφεστὼς τῇ ἀγορᾷ τοῦ σίτου (count of the magazines and being set over the market of grain).[181] The first part of the title is almost certainly apocryphal since *comes thesaurorum* is another name for the *comes sacrarum largitionum*, a position that was not created until about a hundred years after Macrianus.[182] This office did absorb many of the duties of the *rationalis*, however, which means that it is just possible that Peter transmits the same position recorded by Eusebius, only translating it into its later title.[183]

Whatever his exact title, the evidence of these two sources both suggest that Macrianus was in charge of raising the supplies for Valerian's army. Both sources give him titles that represent the head of the finances for the entire Empire. There was no reason for the head of the financial office to be in Egypt separated from his emperor unless he was concerned with the raising of taxes in kind. The second half of Peter's title basically confirms this as ἐφεστὼς τῇ ἀγορᾷ τοῦ σίτου is the equivalent of the *praepositus annonae*, which was a title born by several Severan army supply officials.[184]

The use of a *rationalis* seems to be an attempt to return to earlier methods of army supply, albeit with significant adaptations. As far as can be told, earlier *rationales* did not

---

[180] ὃς πρότερον μὲν ἐπὶ τῶν καθόλου λόγων λεγόμενος εἶναι βασιλέως, οὐδὲν εὔλογον οὐδὲ καθολικὸν ἐφρόνησεν, ἀλλ᾽ ὑποπέπτωκεν ἀρᾷ προφητικῇ τῇ λεγούσῃ· οὐαὶ τοῖς προφητεύουσιν ἀπὸ καρδίας αὐτῶν καὶ τὸ καθόλου μὴ βλέπουσιν· οὐ γὰρ συνῆκεν τὴν καθόλου πρόνοιαν (Eus. *HE* 7.10.5-6); Eck & Groß-Albenhausen 2006; *PLRE* 1.528 (Macrianus 2). *RE* 13.260 (Fulvius 82), has difficulty accepting this title because it is used in a series of puns. However, the fact that Dionysius was punning on his title does not mean that the title was false. Indeed, he subsequently uses Macrianus' name for a somewhat tortured pun that sees Macrianus fleeing far away from his own salvation and therefore living up to his name (Eus. *HE* 7.10.6).

[181] Pet. Patr. fr. 174 = Anon. Cass. Dio 3 (*FGH* 4.193).

[182] Lyd. *Mag.* 2.27; Delmaire 1989, 25-49. Papyri do reveal several officials connected with the *annona* who have titles derived from the θησαυροί (granaries) serving under the prefect of Egypt, which might provide an alternate explanation for Peter's confusion. A *custos thesaurorum* is also recorded under Quietus as one of the officials murdered alongside that emperor (*HA* Gall. 3.4). See *RE* 13.260 (Fulvius 82), Wallace 1938, 35-37. Some authors have translated κόμης τῶν θησαυρῶν as *procurator arcae* or *procurator arcae expeditionis*, but this post does not appear anywhere else and so should be discarded without a more reliable attribution (Pflaum 1960, 930-932).

[183] Jones, *LRE* 412.

[184] Mitthof 2001, 51-70.

have such direct involvement in raising supplies, nor did they leave Rome.[185] Despite this, Macrianus can be seen moving around enough to make it clear that he was not a stationary official. He is described by Dionysius of Alexandria as persuading Valerian to persecute the Christians, which would not have made sense if he was not near the emperor, probably in his headquarters at Antioch.[186] This city was often used as a supply base and it would make sense to use it as the political capital of the east in the same way that Priscus had done just over a decade earlier. Yet after Valerian was captured by the Persians, imperial envoys found Macrianus in Samosata.[187] This was the same site in which Julian was to construct his fleet a century later, and may mean that Macrianus was trying to ship supplies to Roman cities down the Euphrates or simply that this was where Valerian had crossed over to march on Edessa.[188] Both attestations reinforce the fact that his position was far more mobile and involved in the maintenance of the army than earlier *rationales* had been.

That a non-prefect has been given these duties is obviously a significant shift from the direction the post had taken earlier in the century. The rise of a different type of supply officer is certainly not because Valerian did not incorporate prefects into his army. Shapur proudly records having captured Valerian's prefect alongside the emperor, and lists him first among his subordinates.[189] This was presumably Successianus, whom Roman sources record Valerian making prefect in Antioch c. 254.[190]

For a change we hear the reasons behind the choice of a prefect: Successianus was a successful military commander at Pityus on the Black Sea coast who had recently won a major victory against the Goths.[191] Successianus was chosen for his military capabilities and not his administrative experience. The delegation of responsibility for troop supply to

[185] See page 45.
[186] Eus. *HE* 7.10.4.
[187] Pet. Patr. frag. 174.
[188] Zos. 3.12.1.
[189] *SKZ* 11 (*RGDS* 24-25). See also Kettenhofen 1982/1983; Maricq 1958.
[190] Zos. 1.32.2.
[191] Zos. 1.32.1.

a financial officer has the appearance of a shift in policy. Valerian at least, opted to keep his prefect close and use him primarily for his military skills.[192]

From this point until the reign of Maxentius all prefects whose careers are reliably recorded come from the army. Volusianus served as commander of several legions before being appointed prefect under Gallienus,[193] Aurelius Heraclianus apparently led an independent army against the Palmyrans,[194] Julius Placidianus had been prefect of the vigiles under Claudius,[195] Florian led his relative Tacitus' army against the Goths in Asia,[196] and both Afranius Hannibalianus and Julius Asclepiodotus had previously served as army commanders under Probus.[197] Only Carus and Aper are recorded as having served in civil posts but even here they cannot have been exclusively or even primarily civil careers. Aper was *praepositus* of Legio V Macedonia and XIII Gemina before he was appointed governor of Pannonia Inferior, a province frequently invaded and likely in need of a strong hand.[198] Carus' career is less clear, but according to the *Historia Augusta* he served in both civil and military posts.[199]

It is reasonable to conclude from these careers that there was a clear and decisive shift away from appointing civil officials to the post of prefect starting no later than the reign of Valerian and quite possibly as far back as Decius.[200] In fact, it is not until

[192] If Drinkwater 1987, 31, is correct in identifying Victorinus as Postumus' prefect then this policy of favoring military officials as prefects was not unique to the Licinii. Victorinus was serving in Postumus' Praetorian Guard as a tribune in 266/267.
[193] *CIL* 11.1836 (Arretium); *PLRE* 1.980-981 (Volusianus 6).
[194] *HA* Gall. 13.4-5; *PLRE* 1.417 (Heraclianus 6).
[195] *CIL* 12.2228 (Gratianopolis, Gallia Narbonensis); *PLRE* 1.704 (Placidianus 2).
[196] Zos. 1.63.1; Zon. 12.28 [608]; *PLRE* 1.367 (Florianus 6).
[197] *HA* Prob. 22.3; *PLRE* 1.115-116 (Asclepiodotus 3), 1.407-408 (Hannibalianus 3).
[198] *AE* 1936, 53, 54, 57; *CIL* 3.15156 (Aquincum, Pannonia Inferior); *PLRE* 1.81 (Aper 2 & 3).
[199] *HA* Car. 4.6 (*proconsul Ciliciae*), 5.4 (*per civiles et militares gradus*); *PLRE* 1.183 (Carus). The *HA* does attribute the statement about rising through the civil and military grades to the inscriptions found on Carus' statues, so there may be some truth to this as it would be easily disprovable, unlike some of the more obscure letters and documents the author invents.
[200] The evidence for dating the change to Decius is weak and subjective. It relies on two main points. First, it was believed that Decius regarded Philip with contempt and is thus a plausible figure to have radically altered his policies (Mich. Syr. 6.8; Zon. 12.20 [585]). Secondly, Valerian is regarded as having been a strong supporter of Decius and the continuer of his policies (*HA* Val. 5.4-6, 9; Zon. 12.20 [585]). Decius is therefore a plausible originator of these policies.

Manilius Rusticianus in 306 that we meet a prefect who clearly came from a civil background.[201] Philip and his brother may well have been the last of their kind.

The use of prefects as supply officers was not a foregone conclusion in the early third century. The third century was one of adaptation and innovation as the empire was forced to adopt new and untried methods to ensure its survival. At first the emperors relied on their prefects to handle this extra administrative load but by the time of Valerian these administrative prefects had been abandoned to be replaced by others with a more military focus.

Valerian's apparent attempt to give supply duties to another official seems to have been a short-lived experiment. Given the rising number of prefects seizing the throne the attempt to raise a financial officer to balance the prefect's position must have made sense at the time. Nonetheless, it did not last. Prefects are seen to be in charge of raising the supplies for the army by the time of the tetrarchy and it would be most unlikely that they would have been transformed into tax officials if their duties had been devolved onto the *rationalis*.

TABLE 1: THIRD-CENTURY PREFECTS

Date	Name	Previous Career	Serving	Prosopography
192-193	Quintus Aemilius Laetus		Commodus, Pertinax	Howe 1942, 68; PIR A236
193	T. Flavius Genialis	Tribune of praetorian cohort?	Didius Julianus	Howe 1942, 68
193	Tullius Crispinus		Didius Julianus	Howe 1942, 68
193-???	Veturius Macrinus	Praefectus Aegypti, 181-183	Didius Julianus, Septimius Severus?	Howe 1942, 68-69
193-???	Flavius Juvenalis	Centurion of Legio III Augusta?	Didius Julianus, Septimius Severus	Howe 1942, 69
197?-205	Gaius Fulvius Plautianus	Close friend and relative(?) of Severus.	Septimius Severus	Howe 1942, 69-70

[201] *CIL* 6.36949 (Rome); *CIL* 14.4455 (Ostia); *PLRE* 1.787 (Rusticianus 3).

???-200	Quintus Aemilius Saturninus	Praefectus Aegypti, 197-199/200	Septimius Severus	Howe 1942, 70; PIR A278
Early 3rd (204?)	Marcus Flavius Drusianus			Howe 1942, 85
200-205	Marcus Aurelius? Julianus		Septimius Severus	Howe 1942, 70-71
205-212/215?	Quintus Maecius Laetus	Praefectus Aegypti, 199/200-c. 203	Septimius Severus	Howe 1942, 71
205-211	Aemilius Papinianus	a libellis and lawyer	Caracalla	Howe 1942, 71-72; PIR A265
???-212	Valerius Patruinus		Caracalla	Howe 1942, 72
c. 212-217	Marcius (Rustius Rufinus?)	Praefectus vigilum	Caracalla	Howe 1942, 72
212?-217	**Marcus Opellius Macrinus**	Lawyer. Procurator.	Caracalla	Howe 1942, 72-73
???-217	Marcus Oclatinus Adventus	Soldier in speculatores. Centurio frumentarius and princeps peregrinorum? (Dio 78.14)	Caracalla	Howe 1942, 73
217?-218	Ulpius Julianus	Commander of the messengers (principes peregrinorum?) a censibus	Macrinus	Howe 1942, 73
217?-218	Julianus Nestor	Commander of the messengers (Principes peregrinorum?). Possibly the Claudius Julius who was Praefectus Annonae (CIL 6.1603)	Macrinus	Howe 1942, 74
218	Julius Basilianus	Praefectus Aegypti, 218	Macrinus	Howe 1942, 74
218-<222	Publius Valerius Comazon	Later urban prefect	Elagabalus	Howe 1942, 74, Appendix 2B
218-222	…atus	A studiis, legatus legionis, comes et amicus fidissimus (Augusti), praefectus annonae, pontifex minor, praefectus praetorio	Elagabalus	Howe 1942, 74
fl. 221	Antiochianus		Elagabalus	Howe 1942, 75; PIR A575
222-???	Flavianus (Geminus?) Chrestus	Praefectus Aegypti, 219-221	Severus Alexander	Howe 1942, 75

222-???	(Gnaeus) Domitius *Annius?) Ulpianus	Jurist. Praefectus annonae.	Severus Alexander	Howe 1942, 75-76
223/226-???	(Lucius?) Domitius Honoratus	Praefectus Aegypti, 222	Severus Alexander	Howe 1942, 76
c. 223-<238	Marcus Aedinius Julianus	Legatus Augusti pro praetore. Praefectus Aegypti in 222-223	Severus Alexander	Howe 1942, 76; PIR A92
c. 230-235?	Marcus Attius Cornelianus	From Uchi Maius	Severus Alexander	Howe 1942, 76-77
???-238	Vitalianus		Maximinus	Howe 1942, 77
Mid/Late 3rd Century	Porcius Aelianus	Procurator of the res privata		Howe 1942, 86
fl. 240	Domitius	Incited the praetorians to revolt?	Gordian III	Howe 1942, 78
241-243	Gaius Furius Sabinius Aquila Timesitheus	Procuators, vice praesidis, exactor, procurator	Gordian III	Howe 1942, 78-79
242/243?->246	Gaius Julius Priscus	Procurator of several provinces (including Spain and several lost names), praepositus of a vexillation of the *praetoria classis* (of Ravenna?), praepositus of a vexillation (in the first legion Gordian?), procurator of a lost province in place of the governor, *procurator provinciae Macedoniae*, *iuridico Alexandreae vice praefecti Aegypti*, *praefectus Mesopotamiae*, *praefectus praetorio*.	Gordian III?, Philip	Howe 1942, 79
243-244	**Marcus Julius Philippus**	Lawyer. Vice-prefect?	Gordian III	Howe 1942, 79-80
3rd Century?	Quintus Herennius Potens	Family member of Decius?	Decius?	Howe 1942, 86
c. 257-260	Successianus	Soldier in Black Sea.	Valerian	Howe 1942, 80-81
???-c. 260	Silvanus? Or Albanus?		Gallienus	Howe 1942, 81
260?-261	Ballista (Callistus?)	Led anti-Persian campaign after Valerian’s capture	Valerian?, Macrianus	Howe 1942, 81-82, *PLRE* 1.146 (Ballista)

c. 260	Lucius Petronius Taurus Volusianus	Centurio deputatis (liason officer for emperor), primus pilus of the XXX Legion Ulpia, praepositus of the equites singulares (>253), tribune (c. 254), tribune of the Vigiles (c. 255-257), tribune of the Praetorian Guard (c. 255-257), protector (c. 258), prefect of the Vigiles (c. 259), Praetorian Prefect (c. 260), Prefect of the City (c. 267-268)	Gallienus	Howe 1942, 82, *PLRE* 1.980-981 (Volusianus 6)
fl. 268	Aurelius Heraclianus	Organized Gallienus' assassination.	Gallienus, Claudius Gothicus?	Howe 1942, 82; *PLRE* 1.417 (Heraclianus 6)
c. 270	Julius Placidianus	Prefect of the Vigiles (c. 269) in Gaul	Claudius/Aurelian	Howe 1942, 82; *PLRE* 1.704 (Placidianus 2)
275?-276	**Marcus Annius Florianus**	Led Tacitus' army against the Goths in Asia.	Tacitus	Howe 1942, 83; *PIR* A488; *PLRE* 1.367 (Florianus 6)
???-282	**Marcus Aurelius Carus**	Proconsul Ciliciae?	Probus	Howe 1942, 83; *PLRE* 1.183 (Carus)
282?-284	(Lucius Flavius?) Aper	Praepositus of Legio V Macedonia and XIII Gemina (c. 260/268), Praeses of Pannonia Inferior?	Carus, Numerian	Howe 1942, 83-84; *PIR* A730; *PLRE* 1.81 (Aper 2, Aper 3?)
???-284/285	**Sabinus Julianus**	Proclaimed Augustus on death of Numerian. Aurelius Victor calls him a *corrector.*	Carus?, Carinus	*PLRE* 1.480 (Iulianus 38), 1.474 (Iulianus 24)?
284-285	T. Claudius Marcus Aurelius Aristobulus	Later proconsul Africae (c. 290-294), Prefect of Rome (295-296)	Carus/Carinus, Diocletian	Barnes 1982, 124; Howe 1942, 84; *PLRE* 1.106 (Aristobulus)
c. 285-292	Afranius Hannibalianus	Army commander under Probus (says *HA*). Later Prefect of Rome (c. 297-298)	Diocletian	Barnes 1982, 124; Howe 1942, 84; *PLRE* 1.407-408 (Hannibalianus 3)
c. 285-296+	Julius Asclepiodotus	Led Constantius' campaign against Allectus.	Maximian/Constantius	Barnes 1982, 124, 126; Howe 1942, 84-85; *PIR* A990; *PLRE* 1.115-116 (Asclepiodotus 3)
c. 293-324	…us	(East)		*PLRE* 1.1003 (...us)
fl. 303	Flaccinus		Diocletian/Galerius?	Barnes 1982, 126; Howe 1942, 89; *PLRE* 1.342 (Flaccinus)
3rd Century?	Marcus Aurelius Volo…			Howe 1942, 86

Mid 3rd/Early 4th	Mucianus	(in Thrace)		*PLRE* 1.609 (Mucianus 1)
Late 3rd Century	Ulpius Silvanus	(in Lycia)		Barnes 1982, 136; *PLRE* 1.842 (Silvanus 7)
fl. 303	Asclepiades	Persecutor in Antioch. Received law on inheritances in 294.	Diocletian	Barnes 1982, 124; *PLRE* 1.114 (Asclepiades 2)
fl. 304	Hermogenianus		Maximian	Barnes 1982, 136-137
fl. 306	Manilius Rusticianus	Praefectus annonae, agens vicem praefecti praetorio. Curator and patron of Ostia.	Maxentius	Barnes 1982, 127; *PLRE* 1.787 (Rusticianus 2, Rusticianus 3)
309/310	Gaius Ceionius Rufius Volusianus	Corrector Italiae (c. 281/283-289/291), Proconsul Africae (c. 305/306), Prefect (c. 309-310) sent to Africa to suppress Domitius Alexander, Prefect of Rome (310-311), consul (311), Prefect of Rome (313-315), consul.	Maxentius	*PLRE* 1.976-978 (Volusianus 4)
310	Tatius Andronicus		Galerius?	Barnes 1982, 126; *PLRE* 1.66 (Andronicus 7)
310-314?	Pompeius Probus	Sent with Licinius as envoy to Maxentius c. 307	Licinius	Barnes, 1982, 127; *PLRE* 1.740 (Probus 6)
311-312	Sabinus		Maximinus Dia	Barnes 1982, 126; *PLRE* 1.791 (Sabinus 3)
???-312	Ruricius Pompeianus	Killed in battle at Verona.	Maxentius	Barnes, 1982, 127; *PLRE* 1.713 (Pompeianus 8)

4. Tetrarchic and Constantinian Prefects

4.1 Separation of Duties

The phasing out of officials with combined civil and military commands was one of the most distinctive aspects of the reigns of Diocletian and Constantine. Provincial governors and procurators became strictly civil posts while military commands were filled mainly with recently created officials such as prefects of the legion and *duces*. Most of these new posts had been created earlier in the century as extraordinary positions with no intention to make them a permanent part of the administrative/military system, but as the third century passed from one emergency to another the extraordinary posts began to increase in number until running the empire became impossible without them. When

Diocletian came to power he took it upon himself to rationalize these posts into a more regular system.

4.1.1 Military

The praetorian prefects did not enter the tetrarchy with their military powers stripped away. In fact, they did not even leave it that way. The commander of the army campaigning against Allectus was the praetorian prefect Julius Asclepiodotus, working alongside the Caesar Constantius.[202] By this point the army was too accustomed to being commanded by career military officers for an emperor to risk giving the soldiers a commander who was unfamiliar with their needs. Sources are poor, but the *Historia Augusta* plausibly claims a military career dating back to Probus for both Asclepiodotus and Hannibalianus, the two prefects that dominated the first half of Diocletian's reign.[203] In this, as in so much else, Diocletian was a continuator of his predecessors' policies rather than an innovator.

Of course, the continued presence of military prefects at the beginning of the tetrarchy does not prove that they remained military to the end. Given the disturbances of the third century it would not be surprising if the emperors at first prioritized the stabilization of the empire over the imposition of new policies. Indeed, a prefect does appear late in Diocletian's reign who came from a civil background. Hermogenian was a jurist who compiled the *Codex Hermogenianus* and served as *magister libellorum* prior to becoming Diocletian's prefect.[204] The appointment of a jurist as prefect certainly speaks to Diocletian's priorities at the time, but as a lone example it does not demonstrate a clear policy change. His earlier military prefects had been used as judges (as can be seen from laws dated to 286 and 290) so this does not indicate that the prefects' duties were

---

[202] Aur. Vict. 39.42.

[203] *HA* Prob. 22.3. Barnes 1982, 125-126, has suggested that Constantius and Galerius served as praetorian prefects before they were raised to Caesar, which would mean there were four prefects from a military background serving simultaneously. This view has been rightly rejected by most historians since then (Salway 1994, 155-156; Potter 2014, 650 n. 135), although Leadbetter 2009, 60-62, agrees with Barnes.

[204] *AE* 1987.456 Brescia. See Corcoran 1996, 85-90.

radically different.[205] Maximian's prefect at this time was still Asclepiodotus, so if the position was becoming administrative it was happening slowly.

One thing is clear: the appointment of a civil official to the post of prefect (the first known in sixty years) did not represent a permanent shift away from military officials. Diocletian's successors continued to appoint soldiers to the post. While Maxentius did appoint one civil prefect in his reign, his prefecture was dominated by military officials.[206] His first prefect was Manilius Rusticianus who came from a vice-prefect left in Rome to command the praetorian guard.[207] More telling is that Maxentius' last prefect, Ruricius Pompeianus, also served as a military commander. He was defeated and killed by Constantine during that emperor's invasion of Italy in 312.[208] Only his middle prefect Volusianus came from a civil background, serving as *corrector Italiae* and *proconsul Africae* before his elevation, but even here he was used as a military commander and assigned the task of putting down a revolt in Africa.[209] If Diocletian had intended to phase out military prefects Maxentius did not feel bound by it. From this it seems clear that the complete separation of prefects from the military sphere was not a tetrarchic policy. The intention seems to have been to keep the prefects, like the emperors, above such distinctions as civil or military and able to command the obedience of either.

While this may have been tetrarchic policy it was not the policy of Constantine. While the careers of his early prefects are unknown (and probably held the same

---

[205] *CJ* 7.35.2 (286); *CJ* 1.19.1 (290).
[206] Barnes 1982, 136, has suggested that Pomponius Januarianus, prefect of Egypt and then consul and *praefectus urbi*, may have been praetorian prefect in the interim, but this is purely speculative and based on nothing more than a gap in his career. In truth, Barnes has suggested a possible prefectural background for almost every major figure with an unknown career during the period, from Allectus (11 n. 4) to no fewer than four of the tetrarchs: Constantius, Galerius, Severus, and Licinius (125-126, 136-137), since this helps his argument that each tetrarch had his own prefect and that Caesars were selected from these officials. This view must now be rejected in the light of more recent dedications showing only two prefects serving at one time during several points in his reign. See page 67 n. 221. For a more detailed look at Allectus' likely career see Casey 1994, 116-118.
[207] *ILS* 8934 Rome; XIV 4455 Ostia; Barnes 1982, 127; *PLRE* 1.787 (Rusticianus). These vice prefects can be identified by their presence in Rome (or in his case the local city of Ostia) and the holding of an additional magisterial position (in this case that of *praefectus annonae*).
[208] *Pan. Lat*. 12(9).8, 12(9).10.3, 4(10).25.1-7; Barnes 1982, 127; *PLRE* 1.713 (Pompeianus 8).
[209] Aur. Vict. 40.18; Zos. 2.14.2; *PLRE* 1.976-978 (Volusianus 4).

combined military/civil commands as earlier holders of that office) his later prefects were firmly civil. In fact, after Constantine defeated Pompeianus we see no further prefects attested from a military career. Constantine even favored prefectural appointments from specific posts. Only a single one of his final seven final prefects with known careers had not served as a vicar before the appointment.[210] That exception was Valerius Proculus, who had been given the role of prefect while serving as proconsul of Africa and whose very prefecture has been called into doubt.[211] Clearly this one figure is not representative of general Constantinian policy.

Licinius' policies are unclear as no historians felt that the inner workings of his reign were worth recording in detail. However, of his known generals none stand out as obvious prefects. The commander of his fleet is simply listed as a *navarch*, which seems a lowly way to refer to him if he was a prefect.[212] His known military commanders held the title of *dux*.[213] The only Licinian prefect whose career is known was elevated from the post of prefect of Egypt.[214] In all probability, he too followed the Constantinian policy of favoring civil officials for the post.

Even from our limited evidence it seems clear that the shift away from military officers happened almost entirely under Constantine. Most of their duties, civil and military, seem quite traditional under the tetrarchy. At most we can see a slight shift towards civil duties at the end of Diocletian's reign, but even that is likely the result of the first period of relative peace in almost a century and was not passed onto his immediate successors. Constantine's reign on the other hand, saw a string of civil prefects that continued on throughout his sons' reigns. His policies made it possible for his sons to oversee the complete separation of military from civil posts.

---

[210] Barnes 1982, 131-134; *PLRE* 1.747-749 (Proculus 11).
[211] *PLRE* 1.590-591 (Maximus 49), 1.3-4 (Ablabius 4), 1.656 (Pacatianus 2), 1.331-332 (Felix 2), 1.806 (Saturninus 9), 1.911-912 (Tiberianus 4); Salway 1994, 133-139.
[212] *Anon. Val*. 5.23-26; Zos. 2.23.3; PLRE 1.50 (Amandus 2).
[213] His Caesar Valerius Valens was elevated from *dux limitis* (*Anon. Val*. 5.17).
[214] *AE* 1938.85; *ILS* 8938 Tropaeum Traiani; Opt. *App*. 8; *PLRE* 1.478-479 (Iulianus 35).

4.1.2 Civil

The duties of tetrarchic prefects outside their military campaigns is more difficult to narrow down. They were certainly involved in legal matters since we can see laws addressed to them, but most of the laws that have been preserved come from Constantine or later. Only one Diocletianic law contains signs that the prefects were at the top of a larger administrative structure. This is a constitution sent out to Diocletian's prefects which contains instructions for the governors of all provinces.[215] The clear intent here was that the prefects were to distribute copies to all the provincial governors who in turn would post their own copies around the provinces.[216] If the prefect did not have some sort of oversight over the governors then there would be no reason to involve him at all as the emperor's *notarii* could send the letters to the governors themselves. There is a stronger example of prefectural authority from later in the tetrarchy. When Maximinus Daia ended the Great Persecution in 312 he did so by having his prefect Sabinus issue the edict so that he did not have to renounce his former policy.[217] Sabinus then issued this edict to all the provincial governors under him with instructions for them to see that it was published throughout the provinces.

This indicates that the prefects had some kind of supervisory role over the provincial governors. The fact that they so rarely appear in laws at this time suggest that this supervisory role was less as the highest judge below the emperor and more connected to their other duties. The structure they were most likely overseeing was the system of taxation. We are aware from other sources that the reorganization of the *annona* into the land tax of the empire was initiated by Diocletian.[218] In all likelihood the prefect's role in tax collecting was present from the beginning of the tetrarchy and gave him authority over the provincial governors. In defense of this idea it may be noted that the only surviving Diocletianic law issued to praetorian prefects was concerned with indictions and taxation rather than criminal law.[219] By the time of Constantine, matters are

[215] *CJ* 10.42.10.
[216] This was to be a standard part of the prefect's role. See Slootjes 2006, 41.
[217] Eus. *HE* 9.1.2-3. As noted by Porena 2007, 251-252.
[218] See pages 128-129.
[219] *CJ* 10.42.10.

somewhat different. While he issued many laws to governors and vicars directly, the main source of addressees from 324 on are the praetorian prefects.[220] At this point they are clearly assuming duties at the head of administration.

4.2 Regionalization of Prefects

The creation of regional prefectures was a major change in the administrative structure of the empire. Instead of a college of prefects each with authority over the entire empire, the prefects became responsible only for their single region. It would be easy to view the fourfold division of the empire between two Augusti and two Caesars as a sort of demonstration of the utility of the concept of four regional prefectures, but the prefectures were not a tetrarchic innovation. Despite the four emperors, there seem to have only been two prefects, one for each Augustus/Caesar pairing.[221] With only two prefects the fourfold division into prefectures was impossible. What does seem to have changed as the tetrarchy grew increasingly divided after Diocletian is that the prefects grew to be associated with the specific emperors rather than acting in unity. Once the tetrarchs started feuding with each other it was impossible for them to represent the whole empire.[222] This splitting of prefectural power opened the way for the later regional prefects.

Another difficulty with seeing the tetrarchs as precedent for the prefectures is that the regional divide between emperors was not made on a clearly delineated geographical

[220] Corcoran 1996, 138.
[221] The number of prefects under the tetrarchs has been argued back and forth for a long time, but an inscription from Brescia seems to place the issue beyond any doubt. The inscription is a dedication to Constantius and lists the prefects Julius Asclepiodotus and Aurelius Hermogenianus (*AE* 1987.456 Brescia; Chastagnol 1989, 165). As all known prefectural inscriptions from this period include the entire college of prefects this proves that there were only two at this time (Chastagnol 1989, 165-168; Corcoran 1996, 88-89). Indeed, this tradition of collegiality was so strong that even documents from Constantine's and Licinius' regime list the prefects of their rivals alongside their own (*AE* 1938.85). Arguing for two prefects: Bingham 2013, 49; Bowman 2005, 75; Corcoran 1996, 88-89; Howe 1942, 60-62; Leadbetter 2009, 71-72; Porena 2007, 244-245; Salway 1994, 80; Seston 1946, 242, 335. Four prefects: Barnes 1982, 123.
[222] Porena 2007, 249; Potter 2014, 370.

lines as often assumed.[223] Rather than being given carefully defined regions to govern, tetrarchic Caesars went wherever needed within their Augustus' territory. It is otherwise impossible to explain how Galerius was able to lead the campaign against Persia in Mesopotamia and Armenia while his territory (as recorded by Aurelius Victor) was supposed to be Illyricum.[224] Inasmuch as there was a geographical divide it was between East and West, and this reflected the standard cultural/linguistic divide already visible for centuries. A similar division had been made by the earlier pairings of Valerian/Gallienus and Carus/Carinus.[225] In summary, there was not a fourfold geographical division of the empire under the tetrarchs.

The regionalization of prefects during Constantine's reign is less clear. Zosimus explicitly states that he was the one to first divide the empire into four prefectures.[226] Most historians have since questioned this.[227] No contemporary sources associates any of the prefects with the traditional prefectures and apart from the multiplication of the holders there is no indication that they were not still tied to the emperors.

Unfortunately, there has yet to be a satisfactory account of Constantine's later prefects. One is forced to agree with Barnes that the list in the *PLRE* contains too many switches of prefect from emperor to emperor to be plausible, yet while the reconstruction he proposed seemed sensible at the time it has been thrown into confusion by subsequent discoveries.[228] Subsequent works were either too cautious to hypothesize about careers of the prefects or too willing to manipulate known careers to force a pattern.

---

[223] For examples of this assumption see Hendy 1972, 80 n. 47; Howe 1942, 60; Vogt 1967, 72. The conclusion is based on Aur. Vict. 39.30 and Lact. *Mort. Pers*. 7.2, both of which have reason to oversimplify the system.

[224] Aur. Vict. 39.33, explains this by having Diocletian temporarily abandon part of his territory to Galerius. This seems an implausible explanation since it would leave the chief Augustus, Diocletian, ruling little more than Egypt and does not explain why Diocletian was with Galerius in Antioch immediately after his first campaign. Amm. Marc. 14.11.10, emphasizes the subordinate and non-territorial nature of the Caesars.

[225] Aur. Vict. 39.1. The example of Philip's brother Priscus is also relevant although he was never made Caesar (Zos. 1.19.2).

[226] Zos. 2.33.1-2. Similar claims are made in Lydus *Mag*. 2.11.

[227] Barnes 1992, 249; Chastagnol 1987, 322; Jones, *LRE* 101; Salway 1994, 74-78. But see Teall 1967, 23 and Porena 2007, 256-258.

[228] Barnes' 1982, 139 n. 64. Barnes' (1982, 134-136) reconstruction of the prefectural college under Constantine is based largely on an inscription found in Africa (*AE* 1925.72 Tubernuc = *ILT* 814). This

Constantine's early career looks typical in its number of prefects. When still regarding the empire as shared with Licinius each Augustus had one prefect. Once the rupture with Licinius occurred Constantine seems to have added a second prefect, Julius Bassus, and given him to his son Crispus in Gaul.[229] However, by 326 Crispus was dead and yet not only did his prefect remain in power but Constantine appointed another one, Evagrius, who can be seen in the East while Constantine was in Italy.[230] At this point there are two prefects filling roles in regions far separate from any emperor.

This is the earliest sign that regional prefectures were developing, but these prefects were still at least nominally answerable to one of Constantine's Caesars. While all his surviving sons were minors (his eldest was only ten) two of them had already been elevated to Caesar. Eusebius describes Constantine giving his sons their own administrations from an early age and this probably included praetorian prefects.[231] These prefects were essentially acting as regents for their Caesars, and in practice if not in theory, they only held authority over specific regions.

Not all of the prefects under Constantine can be dismissed in this way. In 327 there were apparently four prefects in the college at a time when there were only three emperors.[232] At some point before Constans' elevation to Caesar this number increased to five.[233] Most commentators attributed the fifth prefect to the prefecture of Africa.[234]

---

inscription is a dedication to Constantine II, whose rank of Caesar has been hastily replaced with Augustus. From this, Barnes concluded that the inscription dated to between May and September of 337, between Constantine's death and Constantine II's formal elevation to Augustus. An Antiochene inscription, discovered three years after his book was published, provides Greek duplicate of the Latin inscription (*AE* 1985.823). The erased name that Barnes had initially proposed was Valerius Maximus has been revealed as Valerius Felix. Felix is known through several laws connected to Africa in the *Theodosian Code*, and was out of office by October of 336 when we see his successor Gregorius. This means that the inscription does not date from after Constantine's death at all, which means that the distribution described by Barnes cannot be correct. See Salway 2007, 1283-1284.

[229] Barnes 1982, 131; *PLRE* 1.154-155 (Bascus 14), 1.225 (Constantius 5).

[230] *CTh*. 9.3.2 (326) in Nicomedia.

[231] Eus. *V. Const*. 4.51-52.

[232] Valerius Maximus joins the college by 21 January 327 (*CTh*. 1.5.2) but Constantius continued to hold the prefecture until at least 11 June (*CTh*. 2.24.2 [327]). The following year Bassus, Evagrius, and Maximus are joined by Aemilianus (*CTh*. 11.16.4 [328]). The following year Aemilianus is replaced by Flavius Ablabius (*CTh*. 16.2.6 [329]). At no time was there fewer than four prefects.

[233] "prefectura praetor[ri]o Valeri Maximi, Iu[nii Bassi, F]l(avii) Ablabi, Val[eri Evagri? Or Pap[i Pacatiani?] ccccc." (*AE* 1981.878). See Chastagnol 1987 329-337.

[234] Barnes 1982, 133-137; Chastagnol 1987, 352; Migl 1994, 82-83; Porena 2003, 431-442.

However, Benet Salway has shown conclusively that this prefecture is a phantom that never existed.[235] An inscription dating from a year before Constantine's death lists only five prefects, matching the five emperors active at the time and leaving no room for a prefect of Africa.[236]

While the five prefects near the end of his reign do match the number of emperors, this does not explain the earlier situation. Without the prefecture of Africa to add on we are left looking to other explanations for the multiplication of offices. The most likely answer is that Constantine was pre-establishing prefects to run the provinces for his heirs. That Constantine planned for his heirs' successions seems clear, and this would almost certainly have involved establishing them with their own prefects. Shortly after the execution of his son Crispus he appointed a third prefect, bringing the number of prefects to match the new number of emperors. The second expansion of the prefectural college comes one year before he elevates his final son to Caesar. This process should not be seen as part of a long-reaching plan. While Constantine added a fifth prefect in 332, he did not elevate his nephew Dalmatius to Caesar until 335. Furthermore, we know by Constantine's readjustment of Dalmatius' territory in 335 that he was still experimenting with it until near the end of his reign.

Even if the prefects were technically serving in attendance on their masters at court, the outline of the system of prefectures was already in place by the time Constantine died. For all practical purposes the larger groupings of dioceses were already in place, whether they were officially called prefectures or not. It is no accident that under Constantine's sons the regional prefectures first take permanent shape. After removing their unwanted relatives, the three brothers were left with their own administrations, including personal prefects.[237] The brothers did not stay three for long, and after just over three years as Augustus, Constantine II invaded Constans' territory

[235] Salway 1994, 91-103.
[236] Barnes 1992, 250, is so certain that the prefecture exists that he actually comments on the odd fact that this new inscription does not list a prefect for Dalmatius.
[237] Burgess 2008.

and was killed near Aquileia. His prefect was killed, yet Constans continued to appoint prefects to his elder brother's former territories in Gaul.[238]

The elements of the system were finalized under Constantius. When Constantius came west to defeat Magnentius, he placed his own prefect in Illyricum (something that Constans seems to have been experimenting with) in order to secure the parts of Europe he controlled. And to rule the East while he was away he appointed his cousin Gallus along with a chosen prefect.[239] After Gallus' execution his prefect continued on alone.

While the strict regional prefectures may not have existed formally until late in the Constantinian dynasty, their existence on a practical level was very real. By the time Constans took control of Gaul the province had been under the rule of its own prefect for 22 years. Clearly, Constans felt that it was to his advantage to allow it to continue to be so. Similarly, Constantius had served as emperor for 26 years by the time he moved west to fight Magnentius. Probably eighteen of these years were spent in the east. Regardless of the technical designations these functioned much like regional prefectures on a practical level.

While the geographical division into prefectures was very real, the fact that emperors tended not to campaign after Theodosius I and instead remained in their capitals obscures the fact that the office remained tied to the person of the emperor rather than capital city.[240] Ammianus has Julian say "the prefect should never be separated from his commander in the stress of dangerous times".[241] Indeed, Julian's prefects generally stayed with him unless their supply duties required them elsewhere.[242] Constantius' prefects were similarly mobile, with Rufinus sent to Châlon to explain why supplies were late.[243]

This connection of the prefect to the person of the emperor continued into the fifth century. The clearest proof of this is that when the emperor Honorius left Ravenna to

---

[238] Barnes 1992, 251-252.
[239] Barnes 1992, 249-252.
[240] See Coşkun 2004; Gutsfeld 1998, 81-85.
[241] "Ab imperatore nusquam diiungi debere praefectum in ardore terribilium rerum" (Amm. Marc. 20.4.8).
[242] Amm. Marc. 16.12.14, 18.2.4, 20.4.6, 20.8.20.
[243] Amm. Marc. 14.10.4.

lead an ill-fated imperial campaign against the usurper Constantine in 408 he had in attendance on him at Ticinum the prefects of both Italy and Gaul.[244] The reason that prefects appeared stationary is that for 200 years the emperors rarely left their capitals. By the seventh century when emperors resumed campaigning, the connection to the emperor's person had been severed. While Heraclius was busy campaigning in Armenia in May 626, his prefect Alexander was dealing with a bread shortage in Constantinople.[245]

Since the emperors tended to remain in their capitals during the fifth and sixth century the prefects were most commonly found there. The prefect of Oriens could reliably be found in Constantinople and the prefect of Italy could generally be found in Milan or Ravenna. In prefectures where the emperor was not present the prefects gradually acquired seats. For Gaul this seat was in Trier until the rebellion of Constantine III in 406 and the collapse of the frontiers made Arles a more convenient place.[246] In Illyricum this meant Thessalonica.[247] The prefect was commonly found in the prefecture's seat. These need to be understood in the same sense as the tetrarchic 'capitals': as cities where the supra-provincial government was most commonly located, not as formally designated centers of government.[248]

4.3 The Creation of the Vicariate[249]

The regionalization of prefectures was only a part of the solidification of the late Roman prefecture. In addition to the geographic delineations there was also the creation of a new hierarchy. Below the prefects in this hierarchy were new figures known as vicars (*vicarii*), in charge of regional sub-groupings called dioceses. A diocese was composed of several provinces and made up a part of the larger prefecture. Like the

---

[244] Soz. 9.4; Zos. 5.32.
[245] *Chron. Pasch*. 626; *PLRE* 3.47 (Alexander 21).
[246] Bleckmann 1997, 575-585. Delaplace 2015, 112; Mathisen 1992, 228; Wightman 1970, 250, claim that the prefect moved to Arles c. 395 as part of Honorius' administrative reforms, but this seems implausible.
[247] Jones, *LRE* 373-374.
[248] Millar 1977, 40-53.
[249] A list of all the known vice prefects through the tetrarchy can be found in Table 2 (at the end of this section).

prefects, vicars developed their role in supply and administration during the course of the third century. Unlike the prefects, the vicars did not develop out of a pre-third-century role, but rather came from the newly created vice-prefects. Vice-prefects were the prefect's deputies who performed his duties when the prefect was needed elsewhere.[250] Vice-prefects had the title of *vice praefecti praetorio* (in place of the praetorian prefect) or a variation of *vices agens praefectorum praetorio* (managing the offices of the praetorian prefects).[251] These officials are rarely attested, but their appearance and duties are important.

The earliest vice-prefects seem to have been used primarily as a way of filling in for prefects who were absent on account of campaigns or death. This can be seen from the fact that all vice-prefects with detailed careers hold a second position in Rome simultaneous to the vice-prefecture, whether it is the *praefectus urbi*, *praefectus annonae*, or *praefectus vigilum*.[252] Obviously they could not fill in these positions if they were not in Rome. These officials were placed in charge of the praetorian guard contingent left behind in the city when the rest of the Guard and the regular prefect were away. Rome had grown to depend on the Guard for various peacekeeping and security functions, so when the emperors left on campaign they needed to leave a temporary official behind to manage the affairs of the city.[253]

Despite this connection to the Guard, the early vice-prefects seem to have been chosen mainly from administrative posts. These careers were often ones with a specifically economic focus. Sextus Varius Marcellus (our first recorded vice-prefect)

---

[250] Gutsfeld 2006. The subordinate status of the vice prefect is shown by the fact that they were ranked *vir perfectissimus* and not the *vir eminentissimus* given to regular prefects. See *CIL* 10.3336 Misenum, 14.4398 Ostia; Groß-Albenhausen 2006a; Gizewski 2006.
[251] Jones, *LRE* 47. For a discussion on the conflation these titles see Arnheim 1970, 593-603, who considers them interchangeable. Wiewiorowski 2013, 283-293, argues somewhat unconvincingly that the positions of vice prefect and vicar were different under Constantine, but still considers the vicars to have arisen from the old vice prefects of the third century. Aside from the differing terminology there is no reason to make this assumption, and indeed Arnheim 1970, 596, has convincingly refuted the idea of separate careers by pointing to the later example of Crepereius Madalianus, who is listed as an *agens vices praefectorum praetorio* in one source but a *vicarius* in his career dedication.
[252] See Table 2 (pages 78-79).
[253] Dio Cass. 79.4.2, mentions such an official, although he does not mention the title. See Passerini 1939, 351-352.An idea of the range of duties that the praetorians had in Rome can be seen from Bingham 2013, 81-114.

had a career focused on financial management, including responsibility for the taxes of Britain, and his first appointment after leaving the *vice praefectorum* was responsibility for the military treasury.[254] Alcimus Felicianus (the next known prefect) came from a procuratorial background as well.[255] Only one vice-prefect that we know of had a military career and he served with the fleet, always a major element in the logistics of troop and civic supplies.[256] Such an official would have needed to have been familiar with administrative and transportation matters. This supports the thesis that these officials were essentially emergency administrative positions. The military duties of the prefect might be able to tolerate an inexperienced but temporary deputy, but their civil duties could not afford to go into abeyance.

At some point during the third century, vice-prefects came to be used for more than just control of Rome. The timing of this is unclear. The use of vice-prefects to govern multiple provinces was certainly present under the tetrarchy but it is difficult to find any examples filling this role before Diocletian. There is only one vice-prefect known for certain during the fifty years following Valerius Valens in 244.[257] He is known from an inscription from the reign of Probus and even though he was found in Ostia he is certainly of the type already seen since he was both vice-prefect and *praefectus annonae*.[258]

Two figures from the pre-tetrarchic period may represent vice-prefects of a different type. It has been claimed that Philip the Arab served as vice-prefect before his promotion to prefect.[259] The evidence for this relies on an inscription found in the remains of a village on an imperial estate called Aragua in Phrygia. Engraved is a successful petition presented to the emperor by the populace complaining of the oppression of soldiers and imperial officials. Describing the petition the inhabitants mention how, “concerning this we have already once beseeched your highness, Augustus,

---

[254] *CIL* 10.6569. See Campbell 2006; Howe 1942, 17; Pflaum 1960, 638-642 (No. 237).
[255] *CIL* 8.822 Municipium Aurelium Commodianum, 13.1797 Abbir Cella. See Pflaum 1960, 843-849 (No. 327).
[256] *CIL* 14.4398 Ostia. See Pflaum 1960, 830-831 (No. 323).
[257] *t. Ostiensis Eph*. 7.1211 Ostia; *PIR* 5.147.
[258] *PLRE* 1.1014 (Anonymous 50).
[259] Enßlin 1939, 87; Howe 1942, 110-111.

when you were administering the office of prefect."[260] The text is quite clear that Philip attempted to resolve the problems of this village while serving as prefect, yet Philip's appointment and service as prefect all took place in Mesopotamia, far away from central Asia Minor.[261] How was he able to deal with cases in a village over 1,300 km away during the few months he was prefect and while he was also busy running a war? The easiest explanation is that he was serving as vice-prefect (probably for his brother Priscus the regular prefect) at the time of the petition.[262] This remains speculative however and cannot be considered hard proof.

The second potential proto-vicar comes from an inscription in Sbeitla, North Africa. This inscription references a *vice praefecti*, but it is uncertain whether this is a prefect of the City or of the Praetorians.[263] In all likelihood he was a vice praetorian prefect as his career makes no mention of Rome or any positions associated with Rome. These positions accompanied the known vice praetorian prefects as well, which suggests that we are looking at a different type of figure. The unnamed vice-prefect had served as governor of Pannonia, Macedonia, and Dalmatia (possibly simultaneously), and if he was serving as governor of multiple provinces as an agent of the prefect this would be a clear sign that the vice-prefects were developing into permanent officials with oversight of multiple provinces. While this does seem to represent a vice-prefect of this sort, the inscription cannot be dated with any reliability and may in fact be tetrarchic.[264]

---

[260] περὶ ὧν ἅπα[ξ ἤδη κατήλθομεν εἰς τὸ σὸν], Σεβαστὲ, μέγεθος, ὁπότε τὴν ἔπαρχον διεῖπε[ς ἀρχὴν…] (*IGR* 4.598 Yapılcan, tr. Hauken).

[261] *IGR* 4.598 Yapılcan. Körner 2002, 73, believes that any arguments based on this inscription are flawed due to the condition of the text. He argues that Howe's postulated διεῖπε[ς] (referring to Philip) can just as easily be reconstructed διεῖπε[ν] instead (referring to another prefect whose name is part of the missing text). But Howe 1942, 110 n. 62, and Hauken 1998, 157-158, rightly dismiss this possibility since there would be no reason for the villagers to mention a former official by name unless he was the addressee.

[262] Howe 1942, 110-111.

[263] *AE* 1957, 325, has the most plausible sounding transcription: "tricis quaestor[i i]uridico per flaminiam et P[icenum xu sa]cris faciundis praes prov Pan[noniae Ma]cedoniae Dalmatiae, agenti vice [p]rae…… universus populous [curiarum]", but see also the transcriptions in *AE* 1952, 95 and *AE* 1949, 61; *PLRE* 1.1014-1015 (Anonymous 55).

[264] The provinces of Pannonia, Macedonia, and Dalmatia all border on each other, which would be a major coincidence if the provinces had been held at different dates.

It is clear that there were vice-prefects governing multiple provinces by the time of the tetrarchy. In 298, we can see vice-prefects in Spain and the East.[265] By 310 they are attested in Spain, Oriens, Gaul, Italy, and Africa as well.[266] Again there is a question about the role of these officials. The clearest description of a vicar's duties comes from the *Theodosian Code*: Vicars are "those who govern the dioceses assigned them on behalf of the prefects."[267] This was certainly true by the time the law was issued in 386, but can we automatically assume this was the nature of tetrarchic vice-prefects? The vicariate of the tetrarchy (certainly the early tetrarchy) needs to be seen in the context of the multi-provincial commands of the third century. There had been a number of these extraordinary positions of a similar nature but no consistency of title. Priscus was called *rector Orientis*, Odaenathus was *corrector Orientis*, and we have a *corrector totius Italiae* as well.[268] None of them were listed as vice-prefects although several of them did hold the regular prefecture.[269] Diocletian's innovation (if it can indeed be attributed to him) was merely the use of vice-prefects for this service. When enough provinces had vice-prefects supervising them it would make sense to systematize it and incorporate them into the existing system.[270] Seeing vice-prefects in the provinces may mean that we are looking at developed vicars, or it may mean that we are seeing an intermediate stage in the office's development.

Some indication of the timing of this shift can be developed by looking at the latest possible date at which the vice-prefects can have become vicars. This point is the creation of the dioceses. The earliest reference to dioceses is the *Laterculus Veronensis* which was written c. 314.[271] This is also the approximate date when we get our first attestation of the term *vicarius* (οὐικάριος τῶν ἐπάρχων).[272] At around the same time (1

[265] *PLRE* 1.131 (Agricolanus 2), 1.787 (Rusticianus 1).
[266] Jones, *LRE* 1075 n. 17.
[267] "Qui pro praefectis dioeceses sibi creditas temperarunt," (*CTh*. 6.26.4 [386]).
[268] Priscus (*ILS* 9005 = *CIL* 3.14149, 5 Philippopolis); Odaenathus (Southern 2008, 67-69); Pomponius Bassus (*CIL* 6.3836 = 31747 = *IG* XIV, 1076 = *IGRR* I, 137 Roma).
[269] Priscus (*ILS* 9005 = *CIL* 3.14149, 5 Philippopolis) and possibly Silvanus (Howe 1942, 58, 81 n. 50).
[270] This is approximately the view taken by Arnheim 1970, 594-595; Porena 2003, 169-170.
[271] Barnes 1982, 201-208.
[272] Eus. *HE* 10.6.4; *PLRE* 1.673 (Patricius 1). Lact. *De Mort*. 16.4 refers to *vicarii praefectorum* under Diocletian but as his work was not written until after the death of Maximinus Dia in 313 this may be an anachronism.

August 315) we get our first law identifying a vicar by the diocese he belongs to. Before this point the vicars were always identified by their connection to the prefects (*vicarii praefectorum*), not the diocese or region they ruled.[273] By this point the tetrarchy was no more, and Constantine ruled the West while Licinius ruled in the East as independent but allied emperors.

These references are all to an established system, so the creation of the vicars and the dioceses must have predated these references, although it is not clear by how long. It may have been a later tetrarchic innovation (the term diocese has a Greek origin and Constantine's rule did not extend over the East until 324) but the sudden appearance of the institution at exactly the point where Constantine emerges as the sole ruler of the West suggests that the innovation was his.[274] Constantine was receptive to Greek influences even at this early date, as can be seen by the famous Chi-Rho, and the apparently developed nature of the post may simply mean that he had used such officials while he was in a more isolated position in Gaul

While early vice-prefects, like the early prefects, had no obvious role in tax collection or army supply, the vicars that they transformed into were the second highest position in the tax collection structure. Their development into supervision of tightly defined dioceses occurred before the total regionalization of the prefects and may have served as a positive exemplar for the process.

[273] *CTh*. 9.18.1 (315). See Wiewiorowski 2013, 283-285.
[274] Wiewiorowski 2013, 283-287, makes a similar argument, but he relies on creating a clear distinction between the *agentes vice praefectorum* and the *vicarii dioceseos*, which he believes were two separate positions. Barnes 1982, 224-225, argues that the dioceses were created all in one go in the reforms of 293 when the two Augusti created the subordinate positions of Caesars. The only real evidence for this viewpoint comes from Lact. *De Mort*. 7.4, which is obviously referring to the splitting of provinces and says nothing about the vicars.

TABLE 2: THIRD-CENTURY VICARS				
Date	**Name**	**Previous Career**	**Serving**	**Prosopography**
211/212	Sextus Varius Marcellus	procurator aquarum, procurator provinciae Britanniae, procurator rationis privatae, vice praefectorum praetorio et urbi, praefectus aerarii militaris, legatus legionis III Augustae, praeses provinciae Numidiae.	**Caracalla**	Howe 1942, 17
c. 230	Gaius Attius Alcimus Felicianus	Advocatus fisci of 11 provinces, procurator alimentorum per Transpadum Histriam Liburniam, procurator per Flaminiam Umbriam Picenum, vice procuratoris quadragesimae Galliarum, procurator privatae per Salariam Tiburtinam Valeriam Tusciam, procurator annonae provinciae Narbonensis, procurator ferrariarum, procurator sacrae monetae, procurator hereditatium Romae, curator operis amphitheatri, magister summarum rationum, magister simmae privatae, vice praefecti vigilum, praefectus annonae, vice praefecti praetorio. May have been related to Marcus Attius Cornellianus, the regular prefect at the time.	**Severus Alexander**	*PIR* A1124
c. 241-244	Valerius Valens	praefectus classis Misenensis. Simultaneously praefectus vigilum, vices agens praefectorum praetorio.	**Gordian III**	*PIR* V147
c. 242	**Marcus Julius Philippus**	Lawyer. Vice-prefect? prefect of the watch?	**Gordian III**	Howe 1942, 79-80
mid/late -3rd		agens vice praeff (urb or PPO?)		*PLRE* 1.1014-1015 (Anonymous 55)
276/282		prafectus annonae, vice agens praef pret (at Ostia)	Rome	*PLRE* 1.1014 (Anonymous 50)
293/296	Septimius Valentio	agens vice praeff praet (at Rome)	Rome	*PLRE* 1.937 (Septimius Valentio
298	Aurelius Agricolanus		Spain	*PLRE* 1.31 (Agricolanus 2)
298	Aemilius Rusticianus	agens vice praef pret (in East)	Oriens	*PLRE* 1.787 (Rusticianus 1)
late 3rd/early 4th	Rictiovarus?	vicarius (Northern Gaul)	Gaul	*PLRE* 1.766 (Rictiovarus)
Early 4th	Caecilianus	vic praef per Italiam	Italy	*PLRE* 1.166 (Caecilianus)
<303	Sossiamus Hierocles	ex vicario		*PLRE* 1.432 (Hierocles 4)
303-306	Valerius Alexander	agens vice praeff praet (Africa)	Africa	*PLRE* 1.44 (Alexander 20)

<306	Manilius Rusticianus	Praefectus annonae, agens vicem praefecti praetorio. Curator and patron of Ostia. Later prefect.	**Maxentius ?**	*PLRE* 1.787 (Rusticianus 2, Rusticianus 3)
306/337	Quintus Aeclanius Hermias	agens vice praef pret (Spain)	Spain	*PLRE* 1.422 (Hermias 3)
308	Lucius Domitius Alexander	Africa	Africa	*PLRE* 1.43 (Alexander 17)
312/324	Festianus?	vicarius Orientis	Oriens	*PLRE* 1.333 (Festianus)
313?	Patricius	οὐικάριος τῶν ἐπάρχων (Africa)	Africa	*PLRE* 1.673 (Patricius 1)

5. Conclusions

The role of the praetorian prefect as quartermaster general was an innovation of the third century. The system of the Principate made no use of the prefect in this way. The disorder of the third century encouraged the centralization of authority for supply, since food was something that no army could do without. The existing system lacked any such central figure and so the role was acquired by the prefects when they were serving as regents to a series of child emperors.

The prefect's role as the chief supply officer was standardized under the tetrarchy and they were placed at the head of the land tax. While the separation of civil from military careers had begun under Diocletian, it was not until Constantine that the prefects became strictly civil officials. The regionalization of their position also began under Constantine. We see our first regional vicars early in his reign and he had a policy of placing prefects in charge of set regions as regents for his sons. The regional prefectures became established only gradually under Constantine's sons, but even so the prefects remained tied to the emperors in theory until the fifth century.

CHAPTER II: THE LATE ROMAN COMMISSARIAT (1) SOURCES OF SUPPLY

1. INTRODUCTION

The basic administrative structure that the late Roman commissariat used to supply the army was established in the fourth century and continued throughout late antiquity with largely minor modifications. This system developed out of the irregular supply methods that arose in the third century and was standardized and regularized by Diocletian. The operation of this system can be laid out in substantial detail thanks to the large number of laws and administrative documents surviving.

In order to establish the effectiveness and efficiency of the late Roman commissariat, it is necessary to describe in detail how the system was organized. From this we can detail the way in which the system functioned and how the duties of the various officials interacted. Only once this outline is in place will it be possible to draw conclusions about the commissariat's ability to fulfil its purpose. The main figure in charge of the supply process was the praetorian prefect, who in the words of Zosimus was "the supplier [who] provided grain for [the army]".[275] The praetorian prefects oversaw the collection of the land tax, which was raised in kind and was the main source of the army's rations. This tax system was run by a variety of prefectural and municipal officials, whose roles must be understood in order to draw any conclusions about the strength of the system. Other methods of raising supplies were also used, such as forced purchases, foreign tribute, and plunder from enemy lands, but the quantity of supplies raised by these methods was far less than that raised through the land tax.

The Romans did not always use separate officials for the different stages in the supply process. The prefects were in charge of overseeing the transportation of grain to the army as well as its raising, and when travelling with the army even seem to have had some role in distribution. Municipal officials likewise served in multiple roles within the larger system. For the sake of clarity, this chapter will focus only on the first stage in the

---

[275] ὁ χορηγῶν τὴν σίτησιν αὐτοῖς […] ἐπεξέρχεται (Zos. 2.33.4).

supply process: the raising of supplies. The next chapter will cover their transport, storage, and distribution.

2. Land Tax

2.1 A Taxing Problem

The system of taxation used in the Roman empire reflected the piecemeal growth of the empire and was full of regional variations and exemptions. In the early Empire, taxation had been based around a monetary economy that saw coin collected by the governors based on an assessment of property value.[276] This coin was used to cover government expenses, including the most important expenditure of all: the payment and supply of the army. The third century saw the collapse of this system as the ability of the government to collect taxes declined, as did the value of the coin that the surviving tax was paid in. In order to survive, the state had to resort to forced requisitions to feed its army, the burdens of which fell unfairly on the regions devastated by war, and various emergency methods that often fell little short of plunder.

Diocletian was able to restore some stability to the taxation system of the empire, but it remained variegated. There was no one department or treasury official who handled all the taxes. Instead, the various taxes were spread among different officials. Separate agencies collected various taxes, from the poll tax to the crown tax and numerous tolls and tariffs.[277] The praetorian prefect emerged as the largest taxation authority, however, as he was the one responsible for raising the land tax known as the *annona militaris*. The *annona militaris* was the backbone of the late Roman supply system.[278]

The *annona militaris* first appears as a direct levy of grain under the Severans in the winter of 199/200.[279] It was an extraordinary measure that was used during Severus' visit of Egypt with his army and was not a regular component of the system of army

[276] Jones 1974, 161-168; Lo Cascio 2007, 630-633.
[277] Jones, *LRE* 411-469. See also Delmaire 1989, 239-418.
[278] For the most detailed study of the *annona militaris* see Mitthof 2001, whose focus is, however, on the third century.
[279] Mitchell 1993, 232-233; Mitthof 2001, 54. Older works often overstate the extent of Severus' changes and see the entire system of the later empire originating in his reforms. See Rostovtzeff 1957, 424; Van Berchem 1937, particularly 129-133, 169-187, 187-189, for examples of this viewpoint.

supply. The grain was then delivered to the army directly and distributed through their own officials.

As the century went on, this form of requisition became increasingly common. Already under Severus Alexander we see an official serving as an *exactor reliquorum annonae sacrae expeditionis*.[280] How can there be an arrears of forced requisitions if they are only irregular and emergency impositions? The *annona* must have already been a semi-regular event by the 230s and the government relied on its collection. As the century wore on these requisitions became ever more routine due to the constant warfare. By the end of the century the *annona militaris* was the main means by which the army was supplied.[281]

Rather than ending these requisitions and restoring the old means of army supply, Diocletian standardized them into a regular land tax.[282] He laid the obligation to pay the *annona militaris* across all provinces of the empire, distributing the burden which would previously have fallen most heavily upon the campaign regions. The tax was still collected in kind, assessed based on a new census that divided the land into units called *iuga*.[283] The prefect was in charge of overseeing this system and played the main organizational role. Beneath him came the vicars and provincial governors, who all had some oversight responsibilities. The collection itself was carried out by an array of local municipal-appointed officials.[284] In the following sections the roles of these different administrative levels will be examined in more detail.

2.2 Prefectural Officials

In order to understand the structure of the commissariat we have to look at the various officials involved in the raising and transportation of taxes. The easiest way to do

---

[280] *CIL* 13.1807 Lugdunum.
[281] The point where this term went beyond being merely a word meaning 'army supplies' to a form of requisition is hazy. In fact, it has actually been questioned whether the initial levies of *annona* were really any different from the existing methods in anything but name. See Corbier 2000, 381-382; Van Berchem 1977, 334.
[282] Mitthof 2001, 58-64.
[283] See page 107.
[284] See pages 82-106.

this is to explore each official in detail and examine how their role fit into the larger system of taxation and its interaction with other officials. By necessity, this involved looking at two separate hierarchies: the prefectural and the municipal.

The praetorian prefecture had a tripartite structure. At the top were four praetorian prefects in charge of regional units called prefectures. Under them were a variable number of dioceses under the control of vicars. Below them were the governors in charge of the provinces. Below the province there were the municipal authorities who were appointed by the cities rather than the emperor. The system of land tax was administered through this prefectural structure. The praetorian prefect was in overall charge of its collection and the chief administrators all answered to him, whether they were the vicars, governors, or municipal officials.

2.2.1 Praetorian Prefect

The praetorian prefect was at the top of the prefectural structure and was "second in power after the emperor".[285] The roles of the prefect are too varied to cover here, but their two main duties were the administration of the legal system and the collection of the land tax.[286] Our knowledge of the legal role of the prefect is more detailed than the taxation one as a result of our sources. The law codes naturally show him in his legal role and John Lydus' enthusiastic depiction of the prefecture was written after a lifetime of service in the legal offices of the prefect and he demonstrates a profound dismissiveness of and rivalry with the financial offices.

The prefect's role as the head of collecting the land tax was his other important duty. As the head of the prefecture, the prefect was responsible for overseeing the entire land tax structure. His chief role in this respect was to determine the annual tax rate. Using records of army numbers provided by the *magistri militum* and *comites* along with detailed census records of all the provinces he was able to calculate how much was needed from each province and municipality.[287] The prefect was responsible for

[285] δεύτερος μετὰ βασιλέα (Soc. *HE* 2.16). See also Eunap. *VS* 490.
[286] Jones, *LRE* 448-462.
[287] See also page 108.

calculating the tax rate, but he did not have the authority to issue an indiction on his own. When the amount that needed to be raised had been determined it had to be given to the emperor for authorization.[288] Once this was granted, the prefect sent it down the system to the lower officials who did the actual collecting.

The prefect had a large staff of bureaucrats under him to assist with these calculations. Estimates for the size of the prefect's office go up to 2,000 officials.[289] The prefecture was divided between judicial and financial sections. These bureaucrats were further divided into a series of *scrinia*, or departments. The most detailed account of the financial staff comes from the Oriens Prefecture. In this prefecture there was one *scrinium* for each of the five dioceses and one each for Constantinople, public works, and the army. Each *scrinium* was run by two officials known as *numerarii* with deputies known as *adiutores* and *chartularii*. Under these were two *curae epistolarum* in charge of correspondence with the vicars, and the *tractatores* (τρακτευταί), who handled the accounts of individual provinces.[290] Other prefectures are known to have a similar staff.[291]

The prefect also had a broad responsibility for ensuring that the system was managed effectively on a local level. In this role the prefect sent out his agents to supervise the officials chosen as tax collectors. These *praetoriani* appear in the provinces and they kept an eye on the tax collection officials and watched for signs of graft and corruption. They were prohibited from taking the liturgical magistrates' duties in raising taxes but they were occasionally sent into the provinces serving as *compulsores* to extract overdue taxes.[292]

---

[288] *CTh*. 11.6.1 (382).
[289] Jones, *LRE* 592-599. See also Chastagnol 1987, 33.
[290] Carney 1971b, Diagram 1, based on Lydus, *Mag.* 3.5; Jones, *LRE* 586-591.
[291] The *Notitia Dignitatum* records a staff composed of *principes*, *cornicularii*, *adiutores*, *commentarienses*, *ab actis*, *numerarii*, *subadiuvae*, *curae epistolarum*, *regendarii*, *exceptores*, *adiutores*, and *singulares* for each prefecture, but it does not detail their division into *scrinia*. The Illyricum prefecture had four *numerarii* (*Not. Dig*. Or. 3), one for gold and one for public works, which leaves one *numerarius* to head each diocese.
[292] *CTh*. 12.10.1 (364); Jones, *LRE* 457-458.

2.2.2 Vicar

Vicars' staffs were composed of similar officials to the prefect although they had fewer men. It is generally supposed that the vicar only had around 300 officials (*vicariani*), three times more than a provincial governor and about 1/7 that of the prefect.[293] According to the *Notitia Dignitatum*, the Eastern vicars had a *princeps*, a *cornicularius*, a *commentariensis*, an *adiutor*, an *ab actis*, *numerarii*, a *cura epistolarum*, *exceptores*, and other *officiales*.[294] The western vicars had the same staff but they also had officials called *subadiuvae* and specify that there were only two *numerarii*.[295] Two *numerarii* is not enough to have one handle each province (even the small diocese of Africa has five provinces while the so-called diocese of the seven provinces had seventeen), which means that each member of the vicariate staff would have had to cover multiple provinces. Since the prefect's staff did the majority of the administrative work for issuing the indiction the vicar's staff was probably free to focus on more practical problems and prioritize areas of known difficulty.[296]

The vicar's role in tax collection seems to have been more limited than either the prefect or the governor. In the process of issuing indictions the vicar was merely responsible for copying out the forms sent by the prefect and sending them on to the governors. Like the prefect they could send agents into the provinces to monitor the tax-collecting process, and as they had their seat within the diocese they would have been able to respond more quickly to any problems. This was the extent of their known obligation. The emperors were unlikely to keep a position that no longer served a useful purpose and the apparent redundancy of the vicar may be a feature of Lydus' time, when Justinian phased many of them out.[297] The vicar was probably much more involved in the monitoring and collection of taxes than our sources reveal. The prefect's agents in the provinces may well have relied on the support of the vicar due to his proximity. Our

---

[293] *CTh*. 1.15.5 (365), 1.15.12 (386); *CJ* 12.57.9 (396). The number is also visible in posts replacing the vicars. See *JNov*. 24.1.25 (535), 26.2.1 (535), 27.3 (535), 28.4.1 (535).
[294] *Not. Dig*. Or. 24-26.
[295] *Not. Dig*. Oc. 20-23.
[296] Jones, *LRE* 450.
[297] Evans 2005, 5.

accounts of the system in operation are limited at best and when officials do appear in the province the magistrate who sent them is not always named.

2.2.3 Provincial Governor

The officials who we include under the generic term provincial governor actually held a variety of titles. The most common term for a governor was *praeses* (ἄρχων), which was used for most of the smaller provinces. *Consularis* (ὑπατικός) was a more respectable title that held similar meaning. *Corrector* was a term used for governors of the provinces of Italy, a remnant of Italy's earlier exceptionalism. Finally, there were the proconsuls (ἀνθύπατοι), governors of the provinces of Achaea, Egypt, and Africa. The distinction between the various titles was primarily one of rank rather than responsibility.[298]

Like the prefect and vicar the governors were appointed by imperial authority. Unlike the vicar, the governor served entirely at the prefect's pleasure. By 389 the prefect could remove any governor under his own authority without needing to consult the emperor.[299] As the lowest magistracy in the prefectural system it was recognized that they might need more careful watching than higher-ranking officials who had already proven themselves.

The staff of each governor included two *numerarii*, one to handle the prefect's business, the other to handle that of the *comes sacrarum largitionum*.[300] In addition to this there were numerous *officiales* in his *officium* who could be used for various functions.[301] The number of *officiales* in a governor's staff was kept at around 100.[302] It was with these men that he managed all the administration of the province. These *officiales* were provincial officials and not, as in the earlier empire, the governor's private

---

[298] Slootjes 2006, 19-22. Even the legal codes often do not distinguish, referring to governors by generic titles such as *rector*, *praeses*, *moderator*, and *iudex*.
[299] Jones, *LRE* 372.
[300] *CTh*. 8.1.12 (365); Jones, *LRE* 450.
[301] *CTh*. 12.6.20 (386).
[302] We see this number recorded for four separate provinces: Illyricum (*CJ* 12.57.9 [c. 400]), Pisidia (*JNov*. 24.1 [535]), Lycaonia (*JNov*. 25.1 [535]), and Paphlagonia (*JNov*. 26.2 [535]).

staff. They remained in the province's *officium* after individual governors left.[303] They helped maintain continuity in the provinces, which would otherwise vary widely between different governors.

In fiscal matters it was the governor's duty to approve and oversee the provincial taxation officials. These officials were not a part of the governor's permanent staff but were magistracies held by members of the local elites and appointed by the city councils (*curiae*). This system operated mostly independent of the governor, whose responsibility was mainly to monitor abuses and ensure that the officials were meeting their obligations. They had a broad authority as supervisors and kept records of the *annona* raised throughout the province to pass on to his successor.[304] The governor's role was mainly reactionary. As they could neither set tax rates nor issue remissions the main work was done by others.[305]

2.3 Municipal Officials

The province was the lowest unit in the prefecture proper, but the system could not function without more local forms of organization. If the prefectural commands were broad and centrally-planned regions under the control of a single official, the provincial divisions were more like island chains. The main unit at the sub-provincial level was the city (*civitas*). All administrative activities expanded outwards from here. These municipal positions were less standardized than the imperial offices. It would have been difficult for the emperor to control these positions when he was not responsible for directly appointing them. Diocletian's immediate successors seem to have tried this, but efforts to interfere with the existing system ended up being more complicated than they were worth.

---

[303] Slootjes 2006, 29-31. The increased presence of continuous gubernatorial officials would have been even more significant given the fact that the provinces had been dramatically shrunk in size.
[304] *CTh*. 11.1.3 (336).
[305] Slootjes 2006, 31-39.

These cities were managed by *curiales*, local elites who were eligible to serve on their city council (*curia*/βουλή).[306] Service on these councils was obligatory for members of the curial class as their participation was necessary for the local government to function. Curials held all the main posts at the sub-provincial level. From among this class were chosen the various officials involved in tax collection for the whole region.

Service in this type of administrative office was a *munus*, or liturgy (λειτουργία) in Greek. A *munus* was a mandatory service placed upon an individual by the state. Tax collection was the most important of these, but other *munera* included the responsibility for levying recruits, overseeing public works, maintaining the *cursus publicus*, and organizing public festivals.[307] Almost all the positions involved in local tax collection were liturgical. They were allowed to collect the tax revenue from the inhabitants under their authority, up to the amount authorized by the prefect, but if they encountered problems in collection for any reason they were still expected to ensure that the government received the funds due out of their own pocket.

Decurion is the term that imperial laws use to describe a *curialis* holding a liturgical position. Frequently, the terms *curialis* and decurion are used interchangeably since liturgical services were such an important part of the curial role. The term decurion actually encompasses a wide range of real positions. Another term that is frequently used for curials is apparitor, although this vague term can also refer to members of the prefectural or provincial *officium*.[308] The decurions' most important duty was the collection of taxes.[309]

The position of *curialis* was once a high honor and sought out by ambitious locals. The expenses incurred by the obligation to provide public works was generally offset by significant social advantages. During the third century the attractiveness of these positions declined as more and more responsibilities, once assumed by the state,

[306] For a study of the development of liturgical roles and *curiae* up to the third century see Lewis 1997; Thomas 1983, 36-39.
[307] Corbier 2006; Rhodes 2006.
[308] Purcell 1983, 128-131.
[309] *CTh.* 11.7.12 (383), 11.7.16 (401); Corbier 1991, 211-240.

devolved upon them, along with the financial losses that accompanied them.[310] Imperial legislation and local commentators worried that too many curials were leaving their municipalities to avoid the duties that came with their position.[311] The extent of this problem can be overstated. The *curiae* were still powerful throughout the fourth century, and did not lose their influence until the sixth.[312]

Underneath the cities were the various *pagi*. A *pagus* was a country district that consisted of several villages grouped together for administrative purposes. While they were governed by their own magistrates, the *pagi* still had to answer to the liturgical officials sent out from the cities.[313] Below the *pagi* were the various villages (*vici* or κόμαι). These villages would be run by local elites who functioned essentially as village mayors.[314] The city was the dominant partner in the relationship. The villages and *pagi* had a certain amount of self-rule, but they were firmly within the orbit of officials sent out from the city.

The hierarchy in the provincial system was not as clearly defined as in the prefecture. It came about through centuries of adaptation and improvisation and never really attempted standardization on a universal model. Many of the offices varied from province to province.

2.4 Tax Officials from the Law Codes

There are two sources of information about taxation officials: the law codes and papyrological evidence. The clearest outline of the municipal system of taxation is found in the *Theodosian* and *Justinianic Codes*. These law codes contain entire books dedicated to tax collection and are by necessity detailed about the roles which such officials filled. The aim of the current section is to detail the officials who are found in these law codes and how they fit into the larger structure. The Roman system of taxation was complex

---

[310] Jones 1974, 14-15, finds evidence for this as early as the second century. But see Heather 1998, 205-206.
[311] Amm. Marc. 22.9.12; *CTh*. 6.35.3pr. (319/352); *CJ* 10.32.167 (529), 10.33.1-4, 35.1-3, 38.1.
[312] Laniado 2002, esp. 4-26 and 63-87 and contra Whittow 1990, 10. See also page 237.
[313] Bagnall 1993, 314-319; Liebeschuetz 2001, 63-66.
[314] Liebeschuetz 2001, 65-66.

and sometimes contradictory. Since the officials found in papyrological sources do not all match up directly with the ones found in the law codes, the officials seen there shall be listed separately in the next section.

The officials filling taxation roles in the provinces operated on five basic levels. The first level below the governor contains the province-wide officials. These officials oversaw regions containing multiple cities or even entire provinces. These officials appear only in papyrological sources and seem to have disappeared by the late fourth century in favor of municipal posts. The cities were the next level and they contained most of the officials known to us. The cities were chiefly responsible for organizing the process of tax collection. Below them were the *pagi* officials, those in charge of multiple villages. Below these were the officials in the villages themselves. The final level operating in the provinces was the imperial, which had a number of officials overseeing different levels of the process. These officials answered to the central authorities and were therefore outside the regular liturgical chain of command.

2.4.1 City Officials

a. Exactor Civitatis

Exactores are often described simply as tax collectors (indeed, the English translation of the *Theodosian Code* uses this term throughout) but this definition obscures their position at the top of what was actually a structured system of taxation officials.[315] There were many different types of tax officials and the exactor was not the one doing the actual collecting, but the chief organizer and supervisor of others filling that function. They were also the ones responsible for authorizing the distribution of grain raised in this way.[316]

---

[315] Pharr 1952, 596.

[316] Mitthof 2001, 143-146. Lallemand 124-125, 211; Thomas 1989, 688-691, argue that there were in fact two different types of exactor, one the high official equivalent to the *strategos* and a lower ranking one that was just a regular tax collector. The evidence for this comes mainly from the papyrological sources and an impression that some exactors are less powerful than others, but this view is subjective and major differences can be explained away by the transition from imperial appointments to curial ones. See page 91 n. 318.

The position of exactor seems initially to have been an imperial appointment rather than a liturgical one.[317] Under Constantine we see *ducenarii*, *centenarii*, and *sexagenarii* (old procuratorial rankings) in charge of tax collection for Africa, apparently serving as exactors.[318] Officials certainly could not have been given such high-ranking titles by the local *curiae*. They must have been imperial appointees. The practice of direct appointment was brought to an end by Constantius, but prefectural officials continued to fill the positions nonetheless.[319] We see laws under Valentinian mandating harsh punishments for prefectural officials who violated this rule.[320]

Our sole details about the policies during the imperial appointment phase comes from a letter sent to Flavius Abinnaeus, a soldier on his way to Constantinople, by a *curialis* asking him to get him an ἐπιστολὴ ἐξακτορίας and offering cash for the favor.[321] This shows us that Constantius was still appointing the exactors himself, but also reveals the source of these officials: they came out of the local curial class. In other words they would have been very similar to the liturgical officials seen in the law codes except that they were appointed by the emperor instead of their local curia. This would have given them substantial independence from other liturgical officials and represents the emperors' attempts to standardize the municipal system as well as the new prefectural one.

This also reveals something about the timing of such appointments. Abinnaeus received the letter on 1 February. If he left immediately, the earliest he could have reached Constantinople was in just under a month.[322] In the unlikely event that he was able to get an immediate appointment with Constantius, the earliest he could get the letter back with the appointment would be 1 April. Assuming more reasonable delays at all stages (and since Abbinnaeus was in the city for other business the letter-writer would have to assume that some such delay was likely even in the absence of storms or illness) the curia could not have gotten word of this appointment before May. This means that the

[317] Thomas 1959, 131-132.
[318] *CTh*. 11.7.1 (315/313), 8.10.1 (316); Pflaum 1950, 230-237. Pharr 1952, 580, confuses these with ranks of military origin.
[319] *CTh*. 11.7.9 (364). The law comes from Valentinian, but he makes clear that he is merely repeating the command of Constantius.
[320] *CTh*. 12.10.1 (373/365/364).
[321] *P.Abinn*. 58.8-9 (345).
[322] As calculated by ORBIS.

emperor was not expected to assign anyone to the post until April or later. This only left two months between the announcement of the exactor and the start of his service, not enough time for any objections or appeals to be heard.

It was likely problems like this that caused emperors to decentralize the appointment of exactors. Since each *civitas* needed its own exactor the number of appointees would have been in the hundreds each year, even for Constantius who only had control of the East at this time. At some time between 345 (when Abinnaeus received his letter) and 386 (when a law outlines how exactors were to be appointed) Constantine's policies were changed to give local government the power to elect exactors.[323] This change can probably be attributed to Constantius as Valentinian made clear that his law removing imperial officials from tax collection was a reaffirmation of Constantius' earlier law.[324] Exactors were now to be appointed at a full meeting of the curia, and the nominees' names were required to be sent to the governor.[325] The same procedure was used for susceptors.

Imperial laws make clear what was expected from an exactor. The curiae were expected to choose trustworthy people to fill the post. To that end, the exactors were to be nominated three months before their appointment so that complaints could be made before the official took up his position.[326] Any serious complaints were to result in the exactor's replacement and a thorough investigation by the governor.[327] This was designed to prevent abuses, although in practice this seems unlikely to have served as much of a check except in the most extreme cases since the replacement of an exactor mid-indiction would have too much potential to disrupt the collection of taxes.

One result of this concern was that exactors were required to pay the money that they had been commissioned to raise regardless of whether they had received it in

[323] *CTh*. 12.6.20 (386). This law applied specifically to Africa, but a papyrus from Egypt quotes this law and demonstrates its wider application (*PSI* 6.684 [late 4th century?]).
[324] *CTh*. 11.7.9 (364)
[325] *CTh*. 12.6.20 (386).
[326] *CTh*. 12.8.1 (323), 11.7.20 (412).
[327] *CTh*. 12.6.20 (386).

taxes.[328] This could prove devastating to a local official who lacked the enormous estates found among the high nobility, who were often immune from such services. Bankruptcy was not an option either as a law of Theodosius makes clear that broke exactors are still liable for their debts.[329] To reduce the risk generally, the emperors held the person who nominated the exactor responsible for their conduct.[330] If the exactor was unable to pay then the entire curia could be held liable.[331]

The position of exactor was not a long-term post. Thomas has suggested that exactors may initially have served for three years at a time based on papyri that show the same figure was exactor in 323/4 and 326.[332] This was the standard period of service for a *strategos* (the exactor's predecessor in Egypt) so the conclusion that it carried over makes sense. By 386 their term was limited to a year, although it could be extended to two in the case of emergencies.[333]

b. Susceptor

The *susceptores* were the exactor's subordinates and they fulfilled a wide range of duties connected to the physical act of tax collecting. Susceptors come closer to the position we would think of as tax collectors today. They were the liturgical officials who were sent to the various villages to collect the taxes raised from the countryside. Susceptors came in many different types and fulfilled a set of roles that was more varied and complicated than our legal sources indicate. Most positions gathered from papyri fall under the term susceptor.

In Egypt, the positions of ἐπιμέληται, ἀποδέκται, ὑποδέκται, and πράκτορες all fell under the umbrella of susceptoral posts.[334] These positions seem to have been

---

[328] An example can be found in *P.Lips. 1*.64.26 = *Chr. Wilck*. 281.26 (368/369).
[329] *CTh*. 10.16.4 (385).
[330] *CTh*. 12.6.20 (386).
[331] *Chr. Wilck*. 281.26 (368/369); *PSI* 6.684.2-7 (c. 450-475); Laniado 2002, 117-129. Thomas 1959, 130-131 (citing *Chr. Wilck*. 424.1.12 [360]), argues that the curia assumed this obligation when the exactor switched from being an imperial appointment to a liturgical position.
[332] Thomas 1959, 132, citing *P.Ryl*. 4.657 and *P.Amh*. 2.138.
[333] *CTh*. 12.6.22 (386).
[334] Pack 2006. See pages 101-104.

common throughout the Greek East. Ἀποδέκται appear in Antioch as well.[335] In Latin regions, the curial position of *praepositus annonarum* in Africa was probably susceptoral.[336]

The difference between theoretical and applied positions might seem to undermine any conclusions raised from the legal evidence, but while the converting of laws into practice may have been more complicated than it sounds in the Code, imperial law was intended to be applied across all provinces. If the law codes occasionally simplify the system of officials involved in raising taxes it was so that such laws could be applied universally.[337] Susceptors may be best thought of as a type of official rather than a specific post. Imperial laws concerning susceptors would be applied to the relevant susceptoral official. The more complicated aspects raised by the specialization of susceptoral posts in the papyri will be discussed in the sections for the various officials in the municipal reconstruction below.

Like the exactors, with whom they are frequently mentioned, the susceptors were recruited from the curial classes.[338] Service as a susceptor was mandatory for those called to the curia. The susceptor was the first step on the liturgical ladder above the *pagi* level. We have several indications of their comparatively low rank. The susceptors and the *praepositi horreorum* were the first officials that the law required nominators to assume responsibility for.[339] The law holding the nominators of exactors likewise responsible for their behavior only appears 65 years later.[340] Similarly, the susceptors and *praepositi horreorum* were forbidden to assume the office until their property was recorded carefully and it was proven that they could cover any arrears.[341] Exactors' ability to cover such expenses was taken for granted, presumably because they would have already worked their way through the lower posts.

[335] Mitthof 2001, 128-133.
[336] *CTh*. 12.5.2 (337).
[337] Mitthof 2001, 128.
[338] *CTh*. 12.1.54 (362), 7.6.1 (365), 12.6.4 (365), 9.35.2pr. (376), 12.6.20 (386).
[339] *CTh*. 12.6.1 (321), 12.6.8 (365).
[340] *CTh*. 12.6.20 (386).
[341] *CTh*. 12.6.25 (399).

While the basic duty of the susceptors was the collection of taxes, they did not collect it from individual taxpayers. Instead they received it from the various settlements. The susceptors' duty was to travel from village to village and arrange for the shipment of the supplies raised by these officials. Susceptors were not divided by the villages they were assigned; rather they were separated by the type of product they were raising or the department they were raising it for. Thus we see susceptors of clothing, of wine, of gold and silver, of the sacred largesses, and, of course, of the *annona*.[342] There seems to have been different ranking depending on the goods collected. Valentinian specified that *susceptores vestium* (clothing susceptors) should be recruited from the higher ranking *curiales* (*principales*) or *honorati*.[343]

The susceptors were permitted to charge taxpayers a fee for this service, to be put towards the cost of transportation back to the granaries and to make up for losses due to decay or accidents. This was known as *epimetrum*.[344] The amount they were entitled to varied, but it tended to increase over the years. In 349 the susceptors could claim 0.5% of the tax collected. Other *officiales* would take another 0.5% once the wheat and barley arrived.[345] By 369 that number had doubled to 1%.[346] By 386 it doubled again to 2%, or 2.5% for barley.[347] Other products were even higher. Susceptors were entitled to claim 5% from lard and wine. Remote areas where transportation was uncommonly difficult or expensive could charge even more. Armenian susceptors were paid 2.5% in wheat and barley and 6.67% for wine and lard.[348]

Since there were a large number of susceptors and other tax collection officials involved in the provinces, there was often a potential for confusion. The *comes sacrarum largitionum* used procurators whose duties could occasionally overlap with the

---

[342] Clothing: *CTh*. 12.6.4 (365); Wine: 12.6.15 (369), 12.6.21 (386), 12.6.26 (400); Gold: 12.7.1, 11.7.14 (383). 12.6.17 (383), 12.1.173.1 (409/410); Silver: 12.6.17 (383); *Comes sacrarum largitionum*: 1.32.3pr. (377), 8.5.47pr. (385), 12.6.30 (408); *Annona*: 7.4.1 (325), 12.6.15 (369), 12.6.20 (386), 12.6.21 (386), 12.6.24 (397), 7.4.24 (398).
[343] *CTh*. 12.6.4 (365). For *principales* see Jones, *LRE* 1300 n. 41; for *honorati* see Jones, *LRE* 1221 n. 12; Heather 1998, 206-207.
[344] Mitthof 2001, 198.
[345] *CTh*. 12.6.3 (349).
[346] *CTh*. 12.6.15 (369).
[347] *CTh*. 12.6.21.1 (386).
[348] *CTh*. 12.6.15 (369), 12.6.21.1 (386).

susceptors. For that reason the susceptors were to be kept informed about the procurators' activities.[349] There were similar problems with apparitors from various other departments.[350] By a law of Valentinian, susceptors were even authorized to arrest prefectural officials illegally collecting.[351]

Like the exactors, the susceptors served for only a year at a time.[352] Even so, like other curial posts, the position of susceptor does not seem to have been popular. Some fled to the church upon being selected for the duty and the emperors felt it important or common enough to forbid this.[353]

c. Tabularius Civitatis

Originally known as *numerarii*, the *tabularii* were accountants responsible for keeping track of the tax records (*polyptychs*) of their town.[354] Their main duty was drawing up the individual tax accounts for each taxpayer.[355] When the prefect sent the tax indiction he included the amount due from each *iugum*. It was the *tabularii*'s task to translate this into a list of what was due from each estate and prepare the tax warrants accordingly. They were not curial posts and were lower-ranking than the susceptors.

d. Logografus/Logographus **(Λογογράφος)**

The *logographi* were one of the bookkeeping officials in the cities. They were closely connected with the *tabularii*.[356]

---

[349] *CTh*. 1.32.3pr. (377).
[350] *CTh*. 11.7.14 (383).
[351] *CTh*. 12.10.1 (364).
[352] *CTh*. 7.6.1 (365), 12.6.4 (365).
[353] *CTh*. 12.1.49.2 (361).
[354] *CTh*. 8.1.9pr. (365/368).
[355] Jones, *LRE* 600; Pharr 1952, 593.
[356] Pharr 1952, 596.

2.4.2 Pagus Officials

***a. Praepositus Pagorum* (Πραιπόσιτος πάγου)**

The *praepositi pagorum* (or *pagi*) were created in the year 307-308 and served as intermediaries between the exactor and other members of the city government and the individual villages of his *pagus*. He was responsible for transmitting the information given by the exactor to the villages and he oversaw the villages' liturgical officials.[357] In the law codes he was responsible for collecting the taxes and giving them to the susceptors. The sources are mostly silent about their origins. The one mention that hints at their background is a law which punishes the nominators of *praepositi pagorum* if they prove unsuitable. [358] This is very similar to the laws on susceptors and other liturgical posts, which suggests that the *praepositi* may have been curials.

2.4.3 Imperial Officials

***a. Compulsor* (Ἐξπελλευτὴς)**

The *compulsores* were officials sent to compel the payment of taxes that were overdue.[359] They were essentially tax extractors, sent out when the susceptors had failed to raise the taxes required. As they were only needed when there were problems, compulsors were a more irregular office than the others. Unlike the other figures discussed here the compulsors were neither curial nor municipal. Palatine officials are recorded as compulsors and these officials could be appointed from the prefectural or vicariate as well.[360] While he may not have appointed them, they were expected to answer to the governor.[361]

The appearance of compulsors is a sign that the taxation system was failing. It is not coincidental that the references to compulsors increase dramatically in the reign of Honorius.[362] At this point the western empire was struggling to support itself as a string

---

[357] Mitthof 2001, 146-147.
[358] *CTh.* 12.6.8 (365); Pack 2006.
[359] Jones, *LRE* 457-458.
[360] *CTh.* 8.8.7 (395); Jones, *LRE* 589.
[361] *CTh.* 1.16.11 (369); Cassiod. *Var*. 12.8.3.
[362] *CTh.* 8.8.7 (395), 8.10.3 (400), 8.10.4 (412).

of barbarian groups occupied its territory and disrupted its tax-gathering. We have only one reference to compulsors from before this date, although it is likely that they were used more commonly than this implies. Julian forbade his prefect Florentius from raising taxes through force, which suggests the use of compulsors.[363]

b. Discussor (Λογοθέτης)

Discussores were officials sent out to assess and revise the tax rates and also collect missing taxes.[364] They could be sent by the prefect or governors and had wide-ranging authority and many subordinate officials.[365] They could be over-powerful and thus Valentinian III limited the right of appointment to his prefects (with Aetius' approval).[366] Justinian declared that only he had the right to appoint such officials.[367]

c. Opinator

Opinatores were military officials in charge of supply who were theoretically not involved in raising taxes at all.[368] In keeping with the strict separation of civil and military posts established by Diocletian and Constantine, the opinators were to have no dealing with the provincials but only with the governor and other civil officials. These men were to receive the opinators' warrants and arrange the collection of sufficient taxes themselves.[369] By a law of Honorius, the opinators were explicitly forbidden to collect taxes directly from taxpayers. Harsh punishments are ordained for exactors or other officials who direct the soldiers to delinquent taxpayers.[370] This was clearly not always

---

363 Amm. Marc. 17.3.6.
364 *NVal*. 1.3.4 (450); Pharr 1952, 596.
365 *NVal*. 1.3.2 (450).
366 *NVal*. 1.3.4 (450).
367 *CJ* 1.4.26.4 (530), 10.30.4 (530); *JEdict*. 12 (535); *JNov*. 128.17 (545).
368 Jones, *LRE* 459-460.
369 *CTh.* 7.4.26 (401). This was supposed to be done within a year, but it is unclear what this means. Soldiers clearly could not be expected to wait an entire year with no food. Presumably the reference is to the fact that the governors were responsible for raising sufficient taxes for the coming year and were to pay for the deficit themselves if they could not by a certain date. The opinators were there to ensure the following year's supplies then.
370 *CTh.* 11.7.16 (401).

followed. By the time of Valentinian III they are described as collecting taxes alongside compulsors in Africa. If the tax arrears remain unpaid, Valentinian warned, the opinators would be sent back to take care of them.[371]

2.5 Tax Officials from Papyrological Sources

The hierarchy of taxation officials laid out in the law codes presents a complex but clear structure to the system of taxation. The main officials were curials chosen by their local city to serve as liturgists. The exactors organized the collection from the city and the susceptors carried it out with assistance from the *praepositi pagorum*. Officials from the central authorities could be sent to supervise as needed, but were not a regular part of the system's organization.

The system of taxation officials presented in the papyrological sources, on the other hand, is much less clear. We lack any documents laying out the structure in as clear a manner as the legal sources, but even with the exact relationships being clear it is immediately apparent that there were a greater variety of officials involved in tax gathering than recorded in the law codes. The local liturgical officials varied greatly across the empire. In the West liturgists had titles similar to those in the law codes.[372] In the Greek East titles were taken primarily from earlier positions connected with taxation. Some were antique titles. Comarchs, for example, had not been used since the Ptolemies until Philip the Arab revived the position.[373] Others were posts that had existed for centuries but now had new duties. It was not merely the names that were different. The duties of these officials were different from those of the Latin ones and it is impossible to have a one-to-one equivalence with the Latin titles.

While the titles and structure could be different across different regions, there are a few generalities about the tax collection system that seem to hold true across the

---

[371] *CTh.* 11.1.34 (429).
[372] The Latin legal terminology even continued after the fall of the empire, and St. Patrick *Ep*. 10, refers to his father as a decurion. There were nonstandard positions that we can see in connection to certain provinces, such as the *praefecti mansionum* (*CTh.* 12.1.21 [335/334]) and *annonarum* (12.5.2 [337]).
[373] Mitthof 2001, 147.

empire. Firstly, as far as our evidence goes all the main provincial tax offices were held by liturgical officials recruited from the curial class.[374] The duties, while they could be called by a bewildering array of titles, can all be brought under the umbrella of one of the taxation officials seen in the law codes. The officials used by local authorities were simply more specialized than those in the law codes. In other words, the position reflected in the law code is a role, not a single official with a set position.

The following outline of the municipal figures found in Egyptian papyri is by necessity heavily reliant on the research of Fritz Mitthof, whose work on the *annona militaris* provides the best guide to tax collection officials, but it is important to provide an overview of these officials as they appear in the papyri.

2.5.1 Provincial Officials

a. Catholicos **(Καθολικός)**

The Catholicos was Diocletian's replacement for the *dioiketés* (διοικητής), a treasury official responsible for managing the finances of Egypt.[375] In their new role, the Catholicoi were responsible for raising supplies, as can be seen when Diocletian visited in 298. This responsibility lasted only about forty years. Once Constantine assumed administration of Egypt he divided the taxation in kind from the taxation in gold and gave responsibility for the former to the praetorian prefect and the latter to the *comes sacrarum largitionum*.[376]

The Catholicos had several subordinate officers (ἐπίτροποι or procurators) and was responsible for regions known as nomes, large areas such as Alexandria, the Heptanomia, and the upper and lower Thebaid.

---

[374] Mitthof 2001, 121-133.
[375] Mitthof 2001, 138-142. Despite the connection to provincial finances, it is only the last recorded *dioiketés*, in 284, who is recorded having any involvement with army supply.
[376] Mitthof 2001, 138-142.

2.5.2 City Officials

***a. Strategos/Exactor Civitatis* (Στρατηγός/Ἐξάκτωρ)**

The strategos had been the highest state representative in the Egyptian nomes since the time of the Ptolemies.[377] Under Diocletian the office was split into two parts: the exactor and the *curator* (or λογιστής).[378] The exactor assumed the financial role while the *curator* assumed responsibility for urban affairs and public order. The *exactor civitatis* appears in Egyptian papyri as a simple transliteration of the Latin title from the law codes (ἐξάκτωρ). While exactor is the term used in our sources, the title *strategos* was slow to die. Papyri from as late as 362 refer to the exactors by their old title.[379] Their duties generally line up with the role given to them in the legal sources.

***b. Epimeletés* (Ἐπιμελητής)**

The *epimeletaí* were a high-level susceptoral official, frequently mentioned in administrative papyri recovered from Egypt and other locations. Since their duties are not described in the comparatively clear language of the law codes there is much uncertainty about the position and role of the *epimeletaí*. *Epimeletaí* seem to have ranked just below the exactor and shared many of the duties attributed to that official in the law codes. They remained in the city while lesser susceptoral officials went out to collect the taxes from the villages. [380]

Epimeletaí do not appear as officials in their own right until the third and fourth century. Before this time they had always acted as the agents of some other official. The *epimeletaí* had been appointed *ad hoc* by the cities or nomes to deal with extraordinary

---

377 Bevan 1968, 142; Thomas 1995, 230-239.
378 Mitthof 2001, 143. The earliest attested exactor/strategos was active in 307 (Thomas 1985, 116).
379 *P.Oxy.* 7.1057 (362). The title *strategos* can still be found in Egyptian documents until at least 362 (*P.Oxy.* 7.1057 [362], and see also the list in Jones 1971, 481 n. 53), but it is clearly referencing the exactor rather than a revival of the old position. This can best be seen by the description of officials as στρατηγὸς ἤτοι ἐξακτωρ (*strategos or* exactor) (Sijpesteijn 1992, 241-243; Thomas 1959, 125). There is also a surviving correspondence where a litigant sends to the *strategos* a letter containing written instructions from the governor to the exactor and the litigant is now requesting him to follow these instructions (*P.Merton* 2.91 [316]).
380 Mitthof 2001, 83-99.

tasks that other officials were unsuited for. This form of *epimeletés* died out around the middle of the third century and was replaced by a new form. The new *epimeletaí* were curial officials of the provincial government. During Diocletian's reign the *epimeletaí* became annual offices linked to the collection of taxes under the supervision of the military.[381]

As shown through numerous receipts the *epimeletaí* were both collectors and suppliers of provisions There are various different views about how their competencies were defined. Mitthof argues that the *epimeletaí* remained in their cities, where they personally collected the taxes only from leading officials and villagers who were living there. He was not directly involved with tax collection in the villages and received the taxes raised through subordinate officials. The exact difference between *epimeletés* and an exactor is unclear but there must have been one. The exactor may have been in charge of overall policy and communication with high officials while the *epimeletaí* were more concerned with the actual organization of the system.[382]

c. Epeíktes (Ἐπείκτης)

The *epeiktai* first appear in the time of Aurelian and Probus, but they were not a permanent liturgical post until Diocletian. Instead they seem to have been state officials responsible for the management and execution of public duties. Under Diocletian they were installed as a full liturgical office, generally responsible for public works and state institutions, although they also supervised those serving in liturgical offices. In this latter function they could take over supply functions if the other official proved incapable of performing them.[383] We see, for example, an ἐπείκτης ἀννώνης helping the *strategos* manage supplies while another oversaw the baking of bread when Diocletian was visiting Egypt in 298.[384]

---

[381] Mitthof 2001, 83-99.
[382] Mitthof 2001, 83-99.
[383] Mitthof 2001, 125-127.
[384] *P.Panop. Beatty* 1.67.40 (298).

The *epeiktai* cease appearing after the last third of the fourth century.[385] Presumably their duties had been taken over by other offices.

d. Diadotes (Διαδότης)

The *diadotai* are demonstrated in the sources from 297 into the sixth century. The position was created under Diocletian, having no antecedent before that point. By around 300 it had become a regular susceptoral post in the liturgical system. There was initially a very vague difference between the *apodektai*, *epimeletai*, and *diadotai* and officials with these titles doing the duties expected from the others. Their primary responsibility was the issuance of supplies to the army, but they could also collect the tax in special circumstances. Since their main duty was distribution they were located on army camps and *mansiones* throughout the province, rather than in cities. This made the position an unpopular one for the local curials since they would have to spend a long period of time away from their estates.[386]

e. Apodektes or Hypodektes (Ἀποδέκτης or Ὑποδέκτης)

The apo/hypodektai come closest to describing the traditional susceptoral role. In fact, Jones considers them to be merely the Greek terms for the susceptors.[387] The *apodektai* first appeared in 295 and last appear in 343/344.[388] They were present in Antioch as well as Egypt.[389] The position was a new one and did not exist before this point. Their main duties were to accept taxes raised in kind from private individuals and tax collectors and then hand it over to other authorities (especially the *epimeletai*). They seem to have been the officials responsible for managing the central granaries that stored the grain from multiple villages.[390]

---

[385] Mitthof 2001, 125.
[386] Mitthof 2001, 100-107.
[387] Jones, *LRE* 456.
[388] Mitthof 2001, 107.
[389] Mitthof 2001, 128-133.
[390] Mitthof 2001, 107-119.

The *hypodektai* first appear in 314 and they continued to exist into the seventh century. They replaced the *apodektai* and took over most of its roles. They mainly appear as the issuers of tax receipts and the collection of taxes in kind was only a portion of their business. They managed the granaries in the cities as well as in the river ports and *mansiones*. They appear to have replaced the *diadotai* in supplying local soldiers at Hermopolis by around 340/341. These officials could be recruited from the *curiales* or from the village elite. Mitthof suggests that those who held the position inside the cities were from the *curiales* and those outside were recruited from the villagers.[391]

2.5.3 Pagus Officials

a. Praepositus Pagorum (Πραιπόσιτος πάγου)

The *praepositus pagi* who appear in the papyri is the same official described in the legal sources. His main task was to distribute the tax figures from the exactor to the various villages under him. He also supervised the liturgical figures collecting the taxes.[392]

2.5.4 Village (Κόμη/Vicus) Officials

a. Apaitetes (Ἀπαιτητής ἀννώνης)

The *apaitetai* were a long-lasting position which continued until after the Arab conquest. As collectors of tax in kind they can be dated back to 170 AD. They were always a low-level official connected with tax collection but their actual duties changed substantially throughout their lifespan. Initially they seem only to have been involved in extraordinary levies. Their importance increased with the growth of taxes raised in kind under the Severans.[393] At this point they became a permanent position supplying local troops.[394]

[391] Mitthof 2001, 107-119.
[392] Mitthof 2001, 146-147.
[393] Mitthof 2001, 119; Palme 1989, 62-67.
[394] Mitthof 2001, 119-120.

The *apaitetai* were responsible for raising supplies at village level.[395] They were initially responsible for the collection of several products at the same time but it became the tendency to divide the different products among several different *apaitetai*. The *apaitetai* supplied the *apodektai* who then stored it in the granaries, and the *epimeletai* who provided for the shipment to the troops. Although they arranged for the shipment to these officials they do not appear to have paid for it themselves but billed the charges to the receiving authority.[396]

Rural *apaitetai* were nominated for the post by the comarchs of their village. They did not have to leave the village to perform their liturgy. *Apaitetai* from the metropolitan district however were probably recruited from among the curials.[397] The position declined as taxation in kind died out in the fifth century.[398]

b. Sitologos (Σιτόλογος)

Sitologoi were village officials of a similar nature to *apaitetai*. They are generally seen passing their taxes on to the *apo*/*hypo-dektai*. Due to their name they are generally thought to be connected to the grain supply. Bagnall claims that they were responsible for collecting the *annona* while the *apaitetai* collected the other taxes.[399] Rickman argued that they were the officials manning the granaries.[400] Neither explanation can be considered entirely satisfactory, however, since *sitologoi* are also recorded collecting wine, meat and other taxes, while on at least one occasion an *apaitetes* is recorded collecting barley.[401] The distinction may have to do with who the products are intended for or they may be distinguished by some other means.

---

[395] Palme 1989, 67-76.
[396] Mitthof 2001, 121-123.
[397] Mitthof 2001, 123.
[398] Mitthof 2001, 119.
[399] Bagnall 1993, 134.
[400] Rickman 1971, 187.
[401] *P.Charite* 15.126. See Mitthof 2001, 173.

c. Comarch (Κωμάρχης)

As already noted, Egypt had used comarchs under the Ptolemies but the position died out under the Romans until it was revived by Philip the Arab. The comarch was a village post recruited from the village elites (the εὔποροι). It was not generally held by curials. They were a local official whose duties included the execution of all the business of the village administration. The comarchs were primarily responsible for representing the village as opposed to the larger bodies of the *pagus*, *civitas*, or province. As such they were required to see to it that the village fulfilled its obligations.[402]

The comarchs' duties in taxation were to hand over the taxes raised to the officials responsible for collecting it. They were entitled to reclaim the costs of this from the *strategos*. This part of their duties was phased out under Diocletian and they reverted to essentially being village mayors. Their sole taxation-related duty was to provide recommendations for candidates to fill the liturgical positions.[403]

3. The Operation of the Tax System

3.1 Annual Budget

Unlike other financial offices, the praetorian prefecture did not initially deal in monetary-based taxation. The taxes that they collected were taken in kind and then distributed to soldiers and other eligible officials in the form of rations. Goods-based taxation had different requirements from a monetary tax. Taking a percentage of the coin raised from the sale of goods was relatively easy to accomplish at the point of sale, but extracting a portion of the total goods produced required far more organization.[404] Goods raised in kind could not simply be stockpiled forever until they were needed. Grain and other comestibles would decompose if left too long.

Since the prefect could not simply demand the same taxes every year and store the surplus, as was normal for other taxation officials, he needed to prepare an annual budget. This was a novelty in the Roman empire and it gave the prefect greater leeway than other

[402] Mitthof 2001, 147.
[403] Mitthof 2001, 148-149.
[404] Goffart 1974, 66-67.

financial departments to control and expand tax revenue. This budget not only included the total amounts needed for the entire prefecture, it also calculated the *annonae* that needed to be raised from each city and *pagus* in the provinces.[405]

Putting such a system in place required a detailed knowledge of the taxable products and farmland in all regions of the empire. It was no good demanding grain from the Cyclades or olives from Germania. Farmland needed to be measured so that it could be taxed. The type of produce grown in each field needed to be recorded. To ensure that the tax burden was fairly apportioned Diocletian ordered an empire-wide census. This census was thorough enough to include information on whether the land was used for growing grain, olives, vines, or arable pasture and was updated as needed throughout the following centuries.[406]

A system no longer based upon clearly definable coinage needed some other system of measurement. For this purpose Diocletian created the unit known as the *iugum*. These were not units of set size nor were they intended to be. What comprised a *iugum* varied from province to province as well as from product to product. A *iugum* of wheat fields was not the same as a *iugum* of olive groves. A *iugum* in regions with poor soil did not contain the same number of acres as one where the soil was fertile. In this way the state could express all their tax demands using standard units without the units of measurement requiring standardization.[407]

When calculating the tax indiction the prefect would divide the amount needed for each region by the number of *iuga* in that region. Tax bills would be written out in terms of how much of each product was due per *iugum* of land. The farmers would know how many of their local land units were in each *iugum* and would use that to prepare accordingly. There was some flexibility built into this system. If the regular taxes raised by this method proved insufficient the prefect could issue a superindiction, or

[405] Jones 1974, 198-199.
[406] Corbier 2005, 376-381; Jones 1974, 228-256 (but see Harper 2008, for an updated analysis of his evidence). Goffart 1974, 15-16, emphasizes the local and decentralized organization of this census, but even if it was not as thorough and unique a reform as often implied it is clear that the impetus for the move came from the center.
[407] Goffart 1974, 31-34.

supplemental tax. Like the regular tax indictions, superindictions needed imperial approval before they could be implemented.[408]

3.2 From Requisition to Collection

As might be imagined, the first stage in the administrative process for supplying the soldiers came from within the army itself. The army was accustomed to keeping rosters of their unit strengths and needs. Few of these rosters have survived (and mostly from the early empire) but those that do show an organized record was kept that detailed the soldiers in the unit, including their dispositions (sick, healthy, on detached duty, etc.).[409] These rosters would be periodically sent to the regional commander (the *comes* for the *limitanei*, the *magister militum* for the *comitatenses* or *palatini*). From these rosters, the general's staff would prepare returns (*breves*) which he would send to the prefect either annually or quarterly.[410] This was the end of the military's role in raising supplies.

Once the prefect received the returns he used the numbers in them to calculate his annual budget. This budget determined the total tax indiction for that year. The *tractatores* of the *scrinia* dealing with each diocese would then divide the *annonae* requirements between the number of *iuga* as recorded in the census.[411] Once this was complete it needed to be authorized by the emperor. By the time of Justinian the emperor expected to receive this document to sign two months before the indiction was to be posted in the cities.[412] The sources imply that detailed examination of this document by the emperors was rare. When Julian rejected his prefect's superindiction it was treated as worthy of note.[413]

[408] *CTh*. 11.6.1 (382); Jones, *LRE* 451. This law was not in place until the time of Gratian, but the requirement was present earlier as can be seen in Amm. Marc. 17.3.5.
[409] Fink 1971; Onur 2017; Phang 2007, 291-295; *P.Nessana* 37 (560-580?); *Tab. Vind*. 2.154.
[410] Berger 1953, 377; Jones, *LRE* 451.
[411] Jones, *LRE* 456. See page 84.
[412] *JNov*. 128.1.
[413] Amm. Marc. 17.3.5.

Upon obtaining the emperor’s signature for the indiction the prefect would return it to the *tractatores* of the *scrinia* for that diocese. The *tractatores* would then send it off to the vicars. The vicar’s *cura epistularum* wrote out the decrees to the provincial governors and sent the document on to them.[414]

This role for the vicar seems rather redundant. He simply had to write out individual decrees for each governor. The *tractatores* handling the diocese for the prefect could have simply copied these decrees out themselves, as they came to do in the sixth century. John Lydus’ justification of the vicar’s role in the system is revealing about bureaucratic priorities: he argues that having the decrees written by the *tractatores* in the prefectural *scrinia* was a bad thing since it made the vicar’s *cura epistularum* irrelevant.[415] There is no justification on the grounds of efficiency or effectiveness, merely tradition.

Once the governors received these indictions, they were passed on to their *officium*. There the officials would write out *praedelegationes* (preliminary tax warrants) and post them in all the major cities.[416] The *praedelegatio* was not necessarily going to match the final amount due as the cities still had to calculate the division between taxpayers, but it would have listed how many *annonae* of goods were due from each *iugum* of land. The taxpayers would have been able to work out from this how much the prefect was demanding from them.

Praedelegationes must have been published in advance of the indiction, but how far before is not clear. A law from 436 orders the publication of *praedelegationes* in Egypt by 1 May.[417] This would give the inhabitants two months before the start of the indiction to prepare. Later the same year this instruction was expanded across the entirety of the Eastern prefecture.[418] This might have been merely reinforcing previous practices,

---

[414] Lydus, *Mag*. 3.21.2. Apparently there was a slight reorganization of duties in the sixth century because John complains that the *tractatores* were making the *cura epistularum* unnecessary by writing out the instructions at the prefectural headquarters instead of leaving it for the vicar’s department.
[415] Lydus, *Mag*. 21. See page 109.
[416] *CTh*. 11.5.3 (436); *JNov*. 128.1 (545).
[417] *CTh*. 11.5.3 (436).
[418] *CTh*. 11.5.4 (436)/*CJ* 10.17.2 (436).

but it seems likely that the emperor was trying to get the tax schedule back on track. In fact, by the time of Justinian the entire process dragged another four months and now needed to be published by September or October.[419]

While these were being distributed, a city official called the *tabularius civitatis* applied the indiction to the local land registers (polyptychs) and determined the amounts owed by individual taxpayers.[420] This official would then write up *delegationes* (tax warrants) and send these to be distributed to the villages. The common citizens would have been only dimly aware of all this activity until this point. What mattered to them were the *praedelegationes* and *delegationes* that detailed their tax obligations for the coming year. Until they received these all they could do was estimate what would be taken from them based on rumors and the taxes of previous years.

By this stage the decurions involved in the collection had already been chosen. This was an annual event as most positions lasted for only a single year.[421] Selection would have taken place about a month before the indiction had even been determined. Important officials such as exactors and susceptors received their positions by being nominated by a man of substance and approved by the *curia*.[422] Selection of lower level taxation officials was different. These figures were not exclusively curial, but were selected from the inhabitants of the region. In the cities this meant curials, in the *pagi* these would have been important villagers.[423]

The exactors were in overall charge of the system for each city.[424] They had subordinates in the cities as well (*epimeletai* and procurators) who oversaw the system more intimately.[425] These subordinates did not collect taxes personally except from those who lived in the city.

---

[419] *JNov*. 128.1.
[420] Jones, *LRE* 456. See page 84.
[421] *CTh*. 7.6.1 (365), 12.6.4 (365), 12.6.22 (386).
[422] *CTh*. 12.6.8 (365), 12.6.20 (386).
[423] Mitthof 2001, 119, 123.
[424] See pages 90-93.
[425] See pages 101-102.

The villages of each *pagus* collected their own taxes using their local officials (*apaitetai* in Egypt) and loosely supervised by the comarchs and *praepositi pagi*.[426] Each of these local officials would focus on collecting a single type of product. Once everyone had paid, the taxes would be stored in the local storehouses to await the susceptors. When the taxes had been gathered the susceptors would come from the cities to collect them.[427] Collection of the taxes in grain was apparently done at the threshing room floor.[428] When farmers brought their grain there to be threshed, the local officials simply kept the threshed grain that was due to the state. When the susceptors arrived they would confirm that the amount raised was accurate. Official weights and measures were placed in each city and *mansio* to double check the susceptors' figures.[429]

Once it had been confirmed that the correct taxes had been raised, the susceptors would issue a receipt to individual taxpayers confirming that they had paid what was due. By 410, this receipt was to include the name of the taxpayer, the date of payment, the year, month, account, and amount payed.[430] Earlier receipts must have been broadly similar. These receipts were designed to avoid any potential for confusion, malicious or otherwise. To further ensure security, these receipts were to be witnessed by the *defensor civitatis* (the local judge).[431]

When all the paperwork was completed the susceptors would transport the taxes to the various granaries around the province. The civic granaries were the main destinations for the grain raised in taxes. These were under the control of susceptoral officials (ἀπο/ὑπο-δέκται in Greek) or *praepositi horreorum*. From here the susceptors organized the transport to the forts or arranged its distribution to soldiers in the city. For supplies leaving the province the prefecture relied on the unusual system of *primipili pastus*. The retiring *princeps* of each province on promotion to the rank of *primipilus* was

---

[426] See pages 104-106.
[427] See pages 93-96.
[428] Adams 2007, 168-169.
[429] *CTh*. 12.6.21pr. (386).
[430] *CTh*. 12.1.173.1 (409/410).
[431] *CTh*. 11.1.19 (384), 12.6.23 (398/386), 12.6.32.1 (429). See Frakes 2001, 130-134.

required to transport the *annona* from his province to the destined one at his own expense.[432]

To arrange for such transport would require the susceptors to be accompanied by a range of individuals, from pack drivers to barge pilots.[433] In Egypt, the grain itself was transported by baggage handlers under liturgical obligation to provide their services.[434] This can also be documented in Rome; where freedmen were obliged to join the guild of pack animal carriers (*catabolensium corpori*) unless they could prove that they owned property worth more than a certain amount.[435] Presumably similar arrangements were present in other provinces as well. River transport was handled in a similar way. In Egypt the liturgy of ναυκληρία had been established by the third century and obliged shipowners to provide sufficient transport down the Nile for the *annona*.[436] The cost of this transport was taken from the taxpayers as a percentage of their total tax obligation. The fee was called *singaria* (δραγματηγία or σακκηγία in Greek) and was meant to cover the transportation costs to the destined granary as well as any losses due to shrinkage.[437]

For the majority of taxpayers this was the experience of taxation as they knew it. Certain people were able to avoid it. Select elites were given permission to bypass the susceptoral officials entirely and organize their own collection and delivery. This privilege was called *autopractorium* (self-collection).[438] Such exemptions could be granted by the prefect.[439] They acquired such privileges through patronage and were an exception to the normal rules.[440] By avoiding the susceptors the self-collecting elites also avoided the various charges and abuses that were associated with them, although they were prone to such abuses themselves.[441] These rights were eventually cancelled by Theodosius II, although it does not seem to have been effective since Valentinian III

---

[432] Carney 1971a, 95; Corcoran 1996, 103-104.
[433] See pages 136-145.
[434] Kolb 2000, 236.
[435] *CTh*. 14.3.9 (368/370), 14.3.10 (365/368/370). See also Cassiod. *Var*. 3.10.
[436] Kolb 2000, 237; Mitthof 2001, 254-257.
[437] *CTh*. 12.6.3 (349), 12.6.15 (369), 12.6.21.1 (386). See page 95.
[438] *CTh*. 11.22.4 (409).
[439] *CTh*. 11.22.3 (387).
[440] Liebescuetz 2001, 67.
[441] See pages 263-268

issued a similar law 32 years later and the practice continued in the East and into Ostrogothic Italy.[442]

Various other groups were granted exemptions from the land tax, including *navicularii* and the bakers' guilds, in exchange for service to the state. Veterans were also freed from the obligation to pay the land tax.[443] As happened with self-paying elites, this exemption began to face restrictions by the end of the fourth century. Land granted to soldiers remained inviolate, but lands purchased by them could have tax obligations that remained in place.[444]

Once the granaries had received the goods the collection of taxes was over for the year. Tax officials were still needed to hunt down those who had failed to pay their taxes. In this case the exactors would get personally involved and were authorized to sell off property to make up the deficit.[445] If this failed to be sufficient, the prefectural authorities could send in his compulsors to extract taxes.[446] There seems to have been fewer restrictions on these officials, and their presence in force generally indicates major problems with the region.

If the prefect needed to issue a superindiction the whole process started again. Superindictions were raised in the same way as regular indictions only without the stringent requirements for advance notification.[447] The opposite process could also happen. The emperors periodically issued tax remissions when the original assessment had difficulty being met.[448] This relieved taxpayers of their need to pay anything beyond what they had already contributed. This must have discouraged timely payment of taxes, which undoubtedly accounts for much of the use of compulsors.

---

442 *CTh*. 11.22.4 (409); *NVal*. 10.3 [441]); *P.Cairo Masp*. 1.67002, 1.67060, 111.67283; Cassiod. *Var*. 2.24.4.
443 *CTh*. 7.20.3 (325).
444 *CTh*. 11.1.28. See Goffart 1974, 24-25.
445 *CTh*. 11.7.4 (327/328).
446 See page 97.
447 Amm. Marc. 17.3; *CTh*. 11.6.1 (382).
448 *CTh*. 11.28; *NVal*. 1.1 (438), 1.2 (440/441), 12 (443), 1.3 (450), 34.2 (451); *NMarc*. 2 (450); *NMaj*. 2 (458).

4. OTHER SOURCES OF SUPPLY

4.1 Forced Purchases

Forced purchases, though rarely documented explicitly in our sources, were clearly utilized frequently during this period. They were particularly used when supplying armies going on campaign. We see, for example, Zeno purchasing grain in preparation for a war with the Goths.[449] While not stated explicitly, this must have been a forced purchase. The difference between an emergency tax and a forced purchase at reduced rates could be vague, and our sources often do not even try to distinguish between the two. While we may not have many clear examples of forced purchases we have more details about the manner in which it was carried out. Forced purchases were an obligation that fell only on the wealthiest elites in the empire since they were the only ones who could afford the costs.[450] These elites would purchase the grain and provide it to the empire at set rates.

We also have numerous examples of Roman price-fixing for this period. The most famous of these is Diocletian's *Edict of Maximum Prices*, which established the rates for key products and services throughout the empire.[451] Julian and his brother Gallus also indulged in price fixing during their stays in Antioch, with negative consequences.[452] On a more local level the price for Ostian bread was set at one *nummus* at one point.[453] Given all these examples it is surprising that we do not see our first law establishing fixed rates for forced purchases until Theodosius I.[454] Even here he does not set the prices but states that they shall be purchased at the market rate until the prefect sends a list of allowable rates.

To understand this deficiency we need to look at the laws for commutation of *annona* to cash since this was essentially the same thing in reverse. Indeed, the clearest

---

[449] Malchus fr. 18.1.
[450] *CTh*. 11.15.2 (384). *CTh*. 11.17.4 (408/407/412), negates this restriction for the province of Illyricum due to the emergency caused by Alaric. The fact that they needed to specify that taxpayers of all incomes were required to provide forced purchases and repair work shows that the earlier law remained in force.
[451] Corcoran 1996, 205-233.
[452] Amm. Marc. 14.7.2, 22.7.2; Julian *Misop*. 369A; Matthews 2007, 406-414.
[453] *CTh*. 14.19.1 (398).
[454] *CTh*. 11.15.2 (384).

law on the subject covers fixed rates going in both directions.[455] Since there are more laws on this topic it is easier to pick up any patterns. The initial laws about prices for commutation occur in the 390s, about a decade after Theodosius' law on forced purchases. They too refer to purchase at market prices.[456] That this does not refer to a preestablished price for each region can be seen by a law preventing soldiers from refusing commutation when supplies are plentiful and demanding it when they are scarce.[457] Officials were expected to pay in coin at the rates that existed in the current market. It is not until 407 that commutation to fixed prices was fixed. From this point on there seems to have been a fixed price for each district which the soldiers were not allowed to go over.[458] By 445, the commutation allowance for the *annona* was set at four solidi a year, and the prices of goods were set at 40 *modii* of wheat, 270 pounds of meat, or 200 *sextarii* of wine for each solidus.[459]

That the emperors generally seem to have been reluctant to set up a universal policy for fixed prices does not mean that they were unwilling to fix rates in individual circumstances. The emperor certainly had the authority to fix rates, and he presumably did so when purchasing supplies for a major campaign. The laws about market values were intended for local officials and garrison soldiers rather than campaigning armies.

Examples of military commanders demanding supplies and aid for free are more clearly documented. Romanus, the *comes Africae* demanded supplies and 4,000 camels in order to help Lepcis Magna when it was being attacked by bandits.[460] The elder Theodosius did the opposite when he was serving in Africa, and explicitly forbade the provincials to furnish him with supplies, preferring to rely on those he brought with him

[455] *NVal*. 13.3 (445).
[456] *CTh*. 8.4.19 (396), 7.4.20 (393), 7.4.28 (406).
[457] *CTh*. 7.4.20 (393).
[458] *CTh*. 7.4.29 (407), 7.4.31 (409), 7.4.31 (409); *NVal*. 13.3 (445). *CTh*. 7.4.36 (424), seems an exception since it reverts to the market rates, but the law only concerns officers of the *numerarii* and specifies the circumstances under which they are to get no more than the set prices for common soldiers.
[459] *NVal*. 13.3 (445).
[460] Amm. Marc. 28.6.5. See page 269.

and the ones he could seize from the enemy.[461] The impression given by both these examples is that such demands were commonplace.

4.2 Foreign Tribute

One inexpensive and convenient way of gaining supplies for the army was the imposition of forced tributes on defeated or weaker neighboring peoples. In this, the late Romans were following a long tradition that went back to the days of the Republic.[462] The clearest examples of enforced tribute come from Julian's Gallic campaigns. Julian secured a string of victories against Germanic groups that ended with all the main combatants pleading for terms. One of Julian's chief demands was that the defeated enemies were to supply grain for his forces. Some of this was provided as a one-time payment to get peace terms, but at least three of the kings were expected to support the occupation forces and their fortresses as needed.[463]

These were more than temporary measures. Suomarius, king of the Alamanni, agreed to supply the Romans as often as was needed. He was even integrated into the bureaucracy of the Roman supply system by being issued receipts for goods he contributed, just like any susceptor.[464] That shows concern for keeping the arrangement active in the future rather than just for the moment.

These demands for provisions were such a standard feature of Roman peace terms that Ammianus thought it worthy of mention when one of the barbarian kings *failed* to provide grain supplies and had to explain that the Romans had so badly ravaged his lands he had none to give.[465] While sources in this period are often vague about surrender terms this type of demand was probably common. Theodosius the Elder, for example, also extracted supplies and aid from the Iesalenses in Africa as part of their surrender terms.[466]

---

[461] Amm. Marc. 29.5.10.
[462] Erdkamp 1998, 94-99.
[463] Amm. Marc. 17.1.13.
[464] Amm. Marc. 17.10.4.
[465] Amm. Marc. 17.10.9.
[466] Amm. Marc. 29.5.44.

How long term these arrangements actually proved to be is difficult to say. Julian left for the East to press his claim to the throne and never returned. We hear no more of events in Gaul for several years. Theodosius' excursion to Africa is likewise the last we hear of African border relations for several years. Like any form of extortion such deals were probably only reliable as long as force or the threat of force was available.

It seems unlikely that the Romans ever relied entirely on this tribute however. Barbarian nations, however friendly, had their own internal issues to worry about and could thus be an unreliable form of supply. Then too, if the Romans were campaigning in a region that received supplies from barbarian tribute they were likely to find that their suppliers were either the focus of the campaign or the first victims of their actual opponents. If the tribute providers were now Rome's enemies such supplies would have to be taken by force. If they were still Roman allies they were likely to be among the first targets of enemy forces.

4.3 Plunder

Living off the land was a popular method of supply for Roman armies in enemy territory. Taking from Rome's enemies what was needed to support the campaign against them was part of the ideology of Roman rule. Ammianus praises highly any general who conducted his campaign at the expense of the enemy. One example comes from Ammianus' description of Julian's Persian campaign: "For the soldiers gladly used what they had seized with their own hands, judging that their courage had found them new granaries."[467] Another comes from Theodosius, who boasted that "the harvests and settlements of the enemy are the granaries for our brave soldiers".[468] These are regarded as noble sentiments that preserved Roman citizens from the exactions required by war.

This was more than just an ideological claim. Roman campaigns abound with references to plunder. Much of this was simply the standard looting of a victorious

---

[467] "Bellatores enim libenter quaesitis dextris propriis utebantur, alia virtutis suae horrea repperisse existimantes" (Amm. Marc. 24.1.15).
[468] "Messes et condita hostium virtutis nostrorum horrea esse" (Amm. Marc. 29.5.10).

campaign, but many campaigns were timed to take advantage of foraging. Julian conducted his Gallic campaigns at the end of spring to seize enemy grain.[469] Valentinian timed his campaign against the Quadi to take advantage of the availability of fodder for his horses.[470] An unusual example of this reliance on plunder was Maurice's plan to winter the army across the Danube.[471] Winter campaigning against the Slavs was a procedure advised by the *Strategikon* to make the enemy easier to see in the leafless forests, but to live off the countryside would be difficult.[472] Most campaigns would have taken this factor into account. Julian's Persian campaign is a perfect example of the Roman use of plunder. His march down the Euphrates reads like a list of sources of supplies. The army found deer at Dura, they took fruits and crops from the countryside, they captured the city of Diacira and took the salt and grain stored within, they found arms and supplies at Peroz-Shapur, they stole fruit from palm groves, and they sent the cavalry out to collect supplies while the infantry besieged Maiozamalcha.[473]

Such supplies were mostly used to supplement the campaigning army's existing supplies and expand the length of time they could remain in the field. This was the stated purpose for Julian's heavy plundering as he went down the Euphrates.[474] By living off the land and saving the supplies in the fleet for later he could conduct a longer campaign than would otherwise be possible. In Gaul he had managed to gather twenty days' rations from the enemy crops without having to dip into his own prepared supplies.[475] Such seized supplies could also be used to secure the conquered territory. Julian used the supplies he extracted from enemy fields to repair and provision old Roman forts in enemy territory.[476] Apparently he was able to extract enough from the fields to keep his garrison force at Tres Tabernae supplied for a whole year.[477]

---

469 Amm. Marc. 17.9.2
470 Amm. Marc. 30.3.3.
471 Whitby 1988, 165-169.
472 Maurice, *Strat*. 11.4.
473 Amm. Marc. 24.1.5, 24.1.14, 24.2.3, 24.2.22, 24.3.12-14, 24.4.9.
474 Amm. Marc. 24.1.15.
475 Amm. Marc. 16.11.12.
476 Amm. Marc. 16.11.11, 17.1.11.
477 Amm. Marc. 16.11.11.

Further evidence of the importance of plunder is the extent to which the Romans were willing to go to prevent their supplies being plundered. During Shapur's invasion the Romans burned the fields of Carrhae to prevent Persians from getting fodder for their horses.[478] The Persians were particularly notorious for scorched earth tactics. A major factor in the defeat of Julian's invasion was Shapur burning the fields and depriving the emperor of his ability to live off the land.[479]

Reliance on plunder came with its own dangers. Julian's Persian campaign is the most obvious example of this. By plundering all the supplies that he came across on his way down the Euphrates he found himself unable to travel back the way he had come.[480] The land was now devoid of edible material. Trying to take plunder into account when making plans was difficult. When he tried to survive across the Tigris on plundered grain he found that he had overestimated the supplies available for his use.[481] He encountered a similar problem in Gaul when he brought insufficient rations to feed his army because the grain he intended to seize was not yet ripe.[482] The only way to avoid these problems entirely was to ensure that the army could be supplied by other means if plunder failed to provide for them. Ideally this meant having granaries filled in the cities nearest to the campaign so that additional resources could be brought in as needed. Theodosius the Elder prepared for this by seizing an enemy fort and filling it with his own supplies so that he would have something to fall back on if he failed to find sufficient supplies in the countryside.[483] Such caution was essential for a successful commander.

Obviously plunder was only useful as a source of supply for field armies on campaign. Plunder worked best as a supplement to the existing and more reliable methods of supply. As long as the army had sufficient reserves to make it back to their home granaries should their plunder dry up it was an effective means of expanding the army's operational time.

---

[478] Amm. Marc. 18.7.3.
[479] Amm. Marc. 24.7.7, 25.1.10, 25.2.1; Zos. 3.26.4, 3.27.1, 3.28.1, 3.28.3.
[480] Amm. Marc. 24.8.2.
[481] Amm. Marc. 25.1.10.
[482] Amm. Marc. 17.9.2-3.
[483] Amm. Marc. 29.5.13.

4.4 Fodder

Cavalry was an important component of the late Roman army, and horses required substantial quantities of fodder, the supply of which posed particular challenges. The provinces supplied soldiers with fodder after August 1, but before that they were expected to provide it themselves.[484] Soldiers seem to have taken this to mean that it was their right to graze their horses on whatever fields lay nearby their garrison, but this was a viewpoint that the emperors did not share.[485] Instead they were to be supplied by the same curials who brought their food supplies.[486] If their fodder was located less than twenty miles away they were expected to retrieve it themselves.[487]

On campaign fodder mostly came from enemy lands. Horses were easier to feed in this way as their meals required less preparation.

5. Conclusions

The main source of supplies for the army was the land tax. Other sources were utilized to supplement it, but they were strictly secondary. The land tax was run by two separate hierarchies: the prefectural and the municipal. The prefectural authorities were responsible for calculating the needs of the entire prefecture and setting the tax rate for each province. The municipal authorities were responsible for organizing the collection of this grain and arranging for its transport to the appropriate granaries. While the collection process was highly variable depending on the region, the prefect's involvement gave the central authorities greater control than they had previously.

---

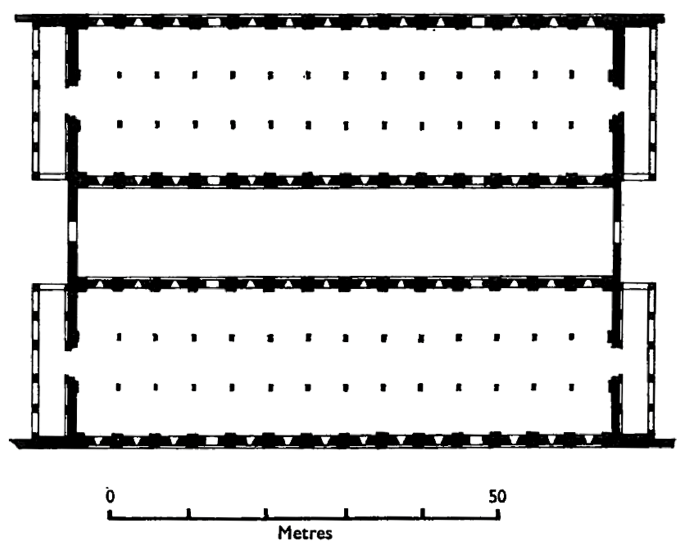
[484] *CTh*. 7.4.8 (362).
[485] *CTh*. 7.7.3 (398), 7.7.4 (415), 7.7.5 (415).
[486] *CTh*. 7.4.8 (362), 7.7.3 (398), 7.7.4 (415), 7.7.5 (415). See also Rea 1996, 162-163.
[487] *CTh*. 7.4.7 (362), 7.4.9 (363).

CHAPTER III: THE LATE ROMAN COMMISSARIAT (2) STORAGE, TRANSPORT, AND DISTRIBUTION

1. STORAGE

Since food supply in the Roman Empire was seasonal, the storage of grain was vital. As Vegetius put it, "other misfortunes can in time be alleviated: fodder and grain supply (Annona) have no remedy in a crisis except storage in advance".[488] The amount of grain stored in this way could be enormous, as can be seen by the size of several granaries. Some of the best preserved *horrea* are found in Ostia, the main port for the city of Rome. The largest of these is the Grandi Horrea, which had 64 rooms containing a total of 3,038 square meters worth of storage space.[489] Even larger horrea existed in Rome, with the Horrea Galbae in Rome covering 20,000 square meters with more than 140 rooms.[490]

FIGURE 1: TRIER HORREA



(From Rickman 1971, 265)

The *horrea* at Ostia and Rome were concerned almost exclusively with the supply of the city of Rome, so while they can demonstrate the potential scale of storehouses they cannot be considered identical to those used for the army. A *horrea* complex from Trier provides a better example for our purposes. This building was constructed sometime in the late third century, likely during the building phase that came when the city was serving as a tetrarchic capital. The storehouse was 70x53.7 meters and consisted of two long halls

[488] "Deinde reliquis casibus potest in tempore subueniri, pabulatio et annona in necessitate remedium non habent, nisi ante condantur" (Veg. *Mil*. 3.3, tr. Milner).
[489] Hermansen 1982, 236 n. 2.
[490] Rickman 1971, 5.

accessible from a central courtyard.[491] Each hall was 20 meters wide, making for a total storage area of 2,800 m^2 for the whole complex.[492]

Trier was not unique in having a substantial granary within its walls. The majority of major late Roman granaries were located within cities.[493] The reasons for this reliance on cities are obvious. Cities were the natural loci for transit routes to pass through since their high population concentration made such connections necessary. A city could not develop if it lacked economic ties to neighboring population and farming centers. They were the centers of the liturgical system and it was from the cities that tax collection was organized. Even without the army present, the same logic that compelled the army to stockpile supplies for the winter months required the cities to keep active granaries for their own population.[494] Cities by this time were also fortified and capable of being defended. Supplies stored here would be under less threat from enemies.

The same logic that made cities ideal sites for storage of grain made them convenient stations for the army as well. Good road networks, central locations, and fortified walls made them natural places to station soldiers. Armies were routinely stationed in cities by the late empire, quartered on the populace and fed from the city granaries.[495] Thus, the supplies destined for cities would frequently be given to the soldiers stationed there.

City granaries did more than supply themselves and the troops living inside. They were also used as storage depots for the centralized distribution of grain to the armies or other granaries. One example is the use of Vienne as a storage depot during Julian's

---

491 Eiden 1949, 73. See figure 1.
492 Rickman 1971, 264-265 and Wightman 1970, 118-119, suggest that it was used for weapons, clothing, and other equipment, but subsequent studies have revealed that the *horrea* was well designed to increase air circulation and had the elevated floors that indicate it was used for perishable items. See Clemens 2001, 166-171; Fuchs 2011, 61.
493 Rickman 1971, 288-289, citing *SHA* Gord. 3.28. The clearest statement to this effect comes from Amm. Marc. 31.8.1, where the Roman grain stockpiles are presumed to be safe because the Goths cannot take cities. See also Amm. Marc. 20.6.1 (Singara), 21.7.7 (Edessa), 21.10.5 (Naessus), 23.2.5 (Tarsus), 25.8.7 (Ur), 31.11.4 (Adrianople); Zos. 2.10.1 (Ravenna), for more examples of city-based granaries. This use of cities as storehouses for the army was new to late antiquity. Prior to this the granaries were primarily fort and villa-based. See Rizos 2013, 671-681.
494 See *CIL* 3.4180 (Savaria); *IG* 7.24 (Corinth); Proc. *Aed*. 5.1.7-16 (Tenedos); Sid. Apoll. *Carm*. 23.42 (Narbonne). See Lavan 2001, 247-248, for further examples.
495 Isaac 1990, 181-218.

Gallic War. Vienne was well to the south of the warzone yet the prefect Florentius used the necessity of ensuring that supplies from Vienne were forthcoming to hide here from Julian Augustus.[496] For this excuse to be at all believable, supplies must have been stored at Vienne for transport north to the army. Indeed, Julian wintered here with his army as he prepared to march against Constantius the following year.[497]

While Vienne was an urban storage depot deep within Roman territory and miles away from the warzone there was also the need for storage depots at staging points closer to the campaign area. Ideally these staging points would be cities protected by strong walls capable of holding off enemy assault. We have an example of this in the fortress of Dara, constructed immediately after Anastasius' Persian War in 505. Dara was built "as a place of refuge for the army and a resting place [and] for the preparation and storage of weapons".[498] Storage for food and water was an essential part of that, and indeed the cisterns and storehouses are mentioned by Pseudo-Zachariah among the list of essential buildings constructed.[499] We are fortunate with Dara to have many of the buildings surviving. There are a number of prominent cisterns, but also ten granaries of 50x4 meters.[500] This gives the granaries a storage area of 2,000 m^2, about 2/3 that of Trier, as befitting the smaller size of the city. Since the construction of the city was supervised by the former supply prefect of the Anastasian War, that such consideration was given to supply issues should not be a surprise.[501]

Cities were not always located in the most convenient sites for supplying soldiers. Some storage depots were placed in more isolated and heavily fortified locations, which would have allowed for the accumulation of a great quantity of supplies for easier distribution to the various forts.[502] This appears in the advice of Vegetius: "all livestock, any sort of fruit and wine which the enemy invader can seize for his own sustenance should be collected into strong forts secured by armed garrisons, or into very safe cities,

[496] Amm. Marc. 20.4.6, 20.8.20.
[497] Amm. Marc. 20.1.1.
[498] Ps-Zach. *HE* 7.6b [35].
[499] Ps-Zach. *HE* 7.6e [37].
[500] Whitby 1986, 750. See Mango's commentary in Bell 1982 103-104.
[501] See page 179.
[502] Rickman 1971, 289, citing Amm. Marc. 14.2.13.

by landowners acting under the admonition of edicts or the compulsion of specially appointed *prosecutores*".[503]

An example of such a supply depot can be seen in the fort near Palaea, which Ammianus describes as protected by a substantial wall and sited near the sea for distribution to the troops in Isauria.[504] Some of the granaries rebuilt by Julian to store the grain being shipped from Britain were probably supply depots of this sort too.[505] One of these granaries may have been located in Brittenburg (just west of Leiden). The site has vanished now, but in medieval and early modern times it was known locally as the Arx Britannica, which may reflect the original use as a storage site for British grain.[506]

---

503 "Quicquid in pecore uel quacumque fruge uinoque hostis inferens bellum ad uictum suum poterit occupare, non solum admonitis per edicta possessoribus sed etiam coactis per electos prosecutores ad castella idonea et armatorum firmata praesidiis uel ad tutissimas conferendum est civitates urguendique provinciales" (Veg. *Mil*. 3.3, tr. Milner).
504 Amm. Marc. 14.2.13. Rizos 2013, 660-665, provides some examples of similar supply forts from the Balkans region.
505 Amm. Marc. 18.2.3. Few cities had actually fallen to the Alamanni, yet Ammianus makes much of Julian's refortifications, including the building of granaries. Presumably, many of these were outside of the cities.
506 Rickman 1971, 267-269.

FIGURE 2: ARBEIA FORT

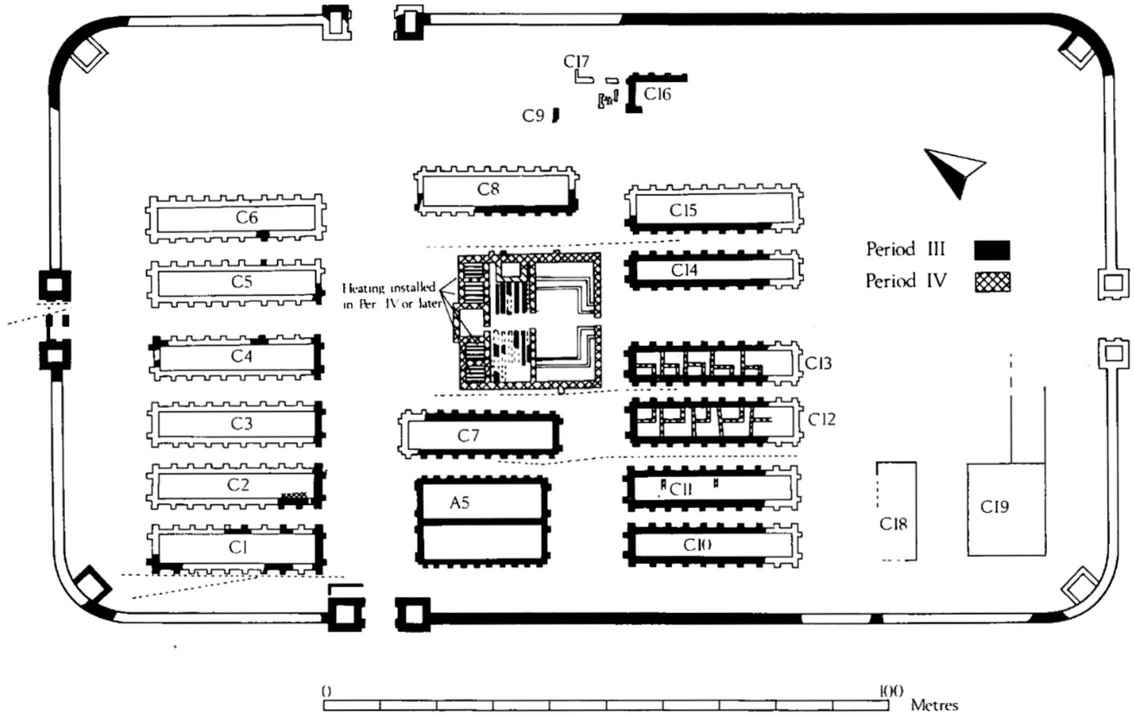


Fig. 22. Periods III and IV.
(From Dore & Gillam 1979, 65)

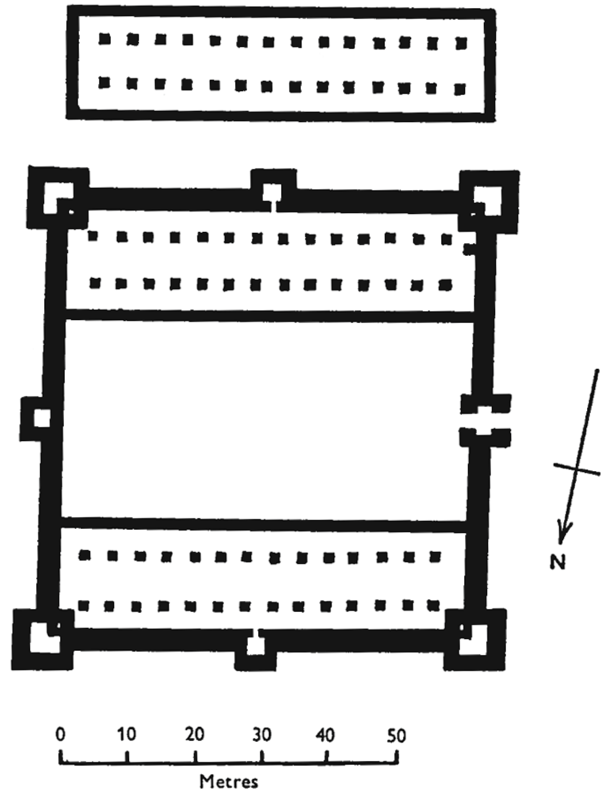
Better preserved sites have confirmed such storage depots and the scale they could operate under. Hadrian's Wall has one of the best documented examples of this type of storage depot. The fortress of Arbeia located near the mouth of the Tyne was repurposed during Severus' Caledonian campaign of 208 to serve as a storage depot for the expeditionary force. The barracks in the fort were torn down and replaced by twenty *horrea* of identical design. The old *principia* was turned into a granary as well and the garrison housed in smaller barracks to the south.[507] The twenty *horrea* all followed the same design, with dimensions of 30 x 6.5 meters, for a total of 3,900 m^2 worth of storage space.[508] This supply depot continued to be used until a fire in the late third/early fourth century (c. 286-318). The northeastern storehouses were restored and remained operational for much or all of the fourth century, although the southwestern ones were converted into barracks.[509]

---

[507] Dore & Gillam 1979, 61-66.
[508] Dore & Gillam 1979, 41-54; Bidwell & Speak 1994, 22-23. See figure 2.
[509] Bidwell & Speak 1994, 42-44.

A different type of supply depot is found in Veldidena near Innsbruck. Instead of twenty small granaries placed inside a larger fort, this *horrea* is closer in design to the one in Trier. It is a single building divided into two halls of about 65x15 meters for a total area of 1,950 m^2.[510] It was operational from the fourth to the fifth century.[511] Unlike Arbeia, the complex seems to have been designed as a supply depot from the start and the walls were heavily fortified with four towers (one at each corner).[512]

FIGURE 3: VELDIDENA



(From Rickman 1971, 266)

An unusual example of a supply depot comes from Dichin in Bulgaria. The fort at Dichin was built c. 400 with at least five dedicated granaries and other store buildings each 14x8 meters in size.[513] This is far more than could be needed for the sustenance of the soldiers stationed within and demonstrates that it must be a supply depot.[514] This must be connected to the supply of the Danubian forts about 50 km to the north.

What makes this site unusual is that it is awkwardly located for a supply depot. It is not connected to any known roads (the main one passes by on the opposite side of river), although it is on the Rositsa River which connects to the Danubian tributary Yantra, and it is only 11 kilometers from the larger and better sited city of Nicopolis.[515] It

---

[510] Wotschitzky 1959, 6-70. Rickman 1971, 266-267. See figure 3.
[511] Zemmer-Plank 1989, 136.
[512] Zemmer-Plank 1989, 132.
[513] Guest 2007, 296-301; Poulter 2007a, 87.
[514] Further evidence for the connection with the *annona militaris* comes by means of pottery evidence. See Swan 2007, 262-265. Chronologically, this is also likely connected with the creation of the *quaestor exercitus*. See pages 196-211.
[515] Poulter 2007a, 83.

is difficult to see why the Romans would chose to build a new fort here to supply the Danubian forts when the local city would do better. Poulter (2007) has suggested that Dichin was intended not for the storage of grain imported from across the empire but for the accumulation of local supplies for shipment to other granaries and forts. He views the inhabitants of the fort as likely *foederati* who were given land to farm in exchange for collecting the local annona for storage and transport to the Danubian forts.[516] This would represent a radical and otherwise undocumented shift in the methods of storage and supply for the Danubian region. Previously the region had relied on local landowners to handle the collection and provide temporary storage in their villas.[517] Shifting to having the taxes collected by soldiers in fortified encampments can only be a sign of extreme insecurity in the region.

While it is clear from this that such granaries could be large and were likely common, further calculation must be used (however speculatively) before we can compare the scales in the archaeological and literary evidence. Rickman in his seminal work on Roman granaries very sensibly does not provide estimates for the storage capacity of these *horrea* since too many factors are unknown.[518] Was the grain stored loose, in bags, or in other containers?[519] How high was it customarily stacked? What proportion of these storehouses was dedicated to grain and how much was dedicated to other types of perishable product? We do not know and without such basic knowledge any effort to provide accurate figures for the storage capacity is doomed to failure.

This does not mean that such estimates are useless. They can still be used to demonstrate the requirements needed for the scale recorded in Roman texts to be plausible.[520] The height that the grain was stacked to is the most questionable part of the calculation. The archaeological evidence suggest that such piles were not low. The

---

[516] Poulter 2007a, 92-96.
[517] Poulter 2007a, 94-96. 82
[518] Rickman 1971, 236-238.
[519] Rickman 1971, 85-86. Hermansen 1982, 228-229, argues based on the design of the Ostian Grandi Horrea that the cells were designed to accommodate loose grain, but even if so this does not prove that this was the procedure for every granary.
[520] Previous works have attempted to do this, although they were complicated by factoring in the different rations and foodstuffs that the Roman soldiers would need. See Bidwell & Speak 1994, 29-30; Collingwood & Haverfield 1920, 138-142; Richmond & McIntyre 1938/9, 129-132.

granary in Trier was eight meters tall and the granaries of Ostia are similar in size. Even with lost second floors taken into account, this is far higher than is necessary for a store building unless a substantial portion of this height was occupied by grain. The walls of these *horrea* are thick (at Trier the wall is almost a meter) and supported by buttresses at regular intervals, which similarly suggests that grain would be stored to a substantial height or there would be no need to reinforce against such outward pressure.[521] Hermansen has suggested, based on the storage of grain on the Canadian prairies, that an average storage height of 2.44 meters is reasonable for Roman granaries.[522] This may be supported by the fact that two underground granaries in Caesarea preserved to their full height stand 2.4 and 2.25 meters tall.[523] 2.44 meters is the figure that shall be adopted here on the understanding that it may well be significantly wide of the mark.

Applying this number to the *horrea* at Trier we come up with a total capacity of 6.8 million liters or 782,000 *modii*. That would be enough to feed the largest army known for this period (Julian's 65,000 strong force) for over three months.[524] A force of 17,000 men could live on it for a year. This estimate is undoubtedly high since it does not take into account the columns, divisions, and wasted space that would be created by bags or troughs. The actual storage capacity was likely less than this (maybe substantially so), but we are clearly still in the range of hundreds of thousands of *modii*. Even if the *horrea* was only capable of storing a fifth of that (and half a meter must be considered implausibly low for the stacked height of grain) it would be enough to supply a large army of 41,000 for a month, or a garrison of 3,400 for a year. And Trier had at least one other *horrea* of this size.

Constantius is said to have ordered three million *modii* stored in the cities of Raetia, which provides us with a chance to compare literary evidence with archaeology since Veldidena was one of the storage depots of that province, although it was on the opposite side from Gaul. Applying the same assumptions made for Trier to the *horrea* at Veldidena we would get a 540,000 *modii* capacity. If we assume that this capacity is

---

521 The lateral pressure of grain is about 2/3 the vertical pressure, so the higher the grain is piled the greater the pressure on the outside walls. See Rickman 1971, 1-3.
522 Hermansen 1982, 228. The similar estimate of 2.5 meters is used in Bidwell & Speak 1994, 29-30.
523 Patrich 2011, 232-236.
524 Zos. 3.13.1. As calculated using the figures from pages 28-35

correct, only six granaries would be needed to store all that grain. It would be astonishing if the province did not have at least this many, especially since there was a similarly sized granary right next to the excavated one. If the actual capacity of the granary was substantially lower, then the province would require a dozen or so such granaries to store all the grain. Even this higher number of granaries does not seem at all an unreasonable estimate for the entire province.

With Dara we have lack a broader picture of needs, but we can make some observations about known supply usage. The city of Dara was stormed in 573 after a six-month siege.[525] Preparations for a potential siege were made by Justin's envoy John Comentiolus earlier that year, so the city's granaries would have been filled to capacity.[526] Dara's known granaries could have held at least 560,000 *modii* of grain, which would have been enough to feed 25,000 men for that length of time. This does not seem an unreasonably small number for a city of that size, although later reports make the claim that it was feeding an absurd 240,000 men.[527]

The scale of the Arbeia granaries is even more impressive. Taking Cassius Dio's figure of 50,000 men for this expedition as a rough estimate we can gain some idea of the supply needs this fort was used to fill.[528] If the granaries in Arbeia were completely filled they could have stored enough grain to keep an army of this size supplied for almost half a year. After the campaigning army had left and Arbeia was merely supplying the forts along and north of the Wall, the fort could theoretically supply a garrison of 15,000 men for a year and a half.[529]

A third type of granary was the much smaller *horrea* that were used to keep grain within individual forts. These granaries tended to take up a substantial portion of the fort.

[525] Joh. Eph. *HE* 6.5 [380]; Mich. Syr. 10.9; Theoph. Simoc. 3.11.2. Evag. 5.10 [207] says that the siege lasted for five months and more. See Turtledove 1977, 204-212, for further details of the siege.
[526] Men. Prot. Fr. 9.1.16-21. The only specific concern mentioned is the provisioning of the cisterns, but it is clear from Menander's description that John's concerns were about preparedness moere generally.
[527] Mich. Syr. 10.9.
[528] Dio Cass. 77.13.2. Dio records this as the number of men killed, which is absurdly high. It may have represented the number fighting instead. The accuracy of this figure need not be of great importance here since the figure is only used to determine supply possibilities.
[529] Estimates for the garrison in the fourth century range from 4,800-19,240. See Collins 2012, 51-54.

Roman forts were expected to be able to last for up to a year without resupply, to avoid any dangers that might come about during wartime.[530] In times of war or when conflict was anticipated the granaries would be filled to avoid any supply disruption. There are several examples of this stockpiling from Julian's campaigns. Ammianus recalls how Julian stored a year's worth of supplies in the fort of Tres Tabernae.[531] Julian did the same when rebuilding Trajan's forts across the river.[532]

One should not view all these forts as isolated and unpopulated sites. Even when they were not built in cities, the Romans frequently sited their forts in or near established settlements. Tres Tabernae, for example, is clearly the name of a village rather than an isolated fort.[533] Even more explicitly a civilian settlement was the village (*oppidum*) of Lamfoctum seized by Theodosius the Elder and used as a supply depot and fallback position for his campaigns in Africa.[534] The logic behind such positioning was the same as for the positioning in cities: it allowed the Romans to take advantage of existing roads and infrastructure to keep their forts supplied and accessible.

Even where there was not such a preexisting settlement (as seems to be the case in many of the forts on Hadrian's Wall) permanent military bases created new population centers with their own gravity. Areas where there was a heavy army concentration could expect to develop a civilian settlement (*vicus*) over time to see to the soldiers' needs. By the late empire, most forts would have been in or near an existing settlement.

---

[530] *P.Abinn*. 26.16-20, for example, describes how the *dux* has ordered the *annona* for the year (ἀννωναι ἐνιαυτοῦ) to be locked up at the fort as soon as it arrives.
[531] Amm. Marc. 16.11.11.
[532] Amm. Marc. 17.1.11.
[533] Amm. Marc. 16.11.11.
[534] Amm. Marc. 29.5.13.

2. TRANSPORT

2.1 Means of Transport

2.1.1 Water Transport

Ships were the preferred method of transport during the Classical era.[535] This was true both for military and private shipments. The preference for water transport can be seen by the positioning of many of the storage depots mentioned so far. Ostia was the main port of Rome and the *horrea* of Trier were located near the port.[536] Even storage depots outside of cities tended to be located near water, like the one that Ammianus mentioned at Palaea.[537] Physical remains confirm the same for supply depots like Veldidena and Arbeia.

One of the most striking elements of ancient water transport was how sharply it was limited by seasonal constraints. The clearest delineation of this comes from the *Theodosian Code*. A law of Gratian restricts the navigation season used by the *navicularii*:

> The month of November shall be exempt from navigation, but the month of April, since it is the nearest to summer, shall be employed for the acceptance of cargo. The necessity of such acceptance from the kalends of April (1 April) to the kalends of October (1 October) shall be preserved permanently; but navigation shall be extended to the day of the ides of the aforesaid months.[538]

Similar are the words of Vegetius:

> From three days before the Ides of November (1l November) until six days before the ldes of March (10 March) the seas are closed.[539]

---

[535] Casson 1992, 21-23; Roth 1999, 189-195.
[536] Fuchs 2011, 60.
[537] Amm. Marc. 14.2.13.
[538] "Novembri mense navigatione subtracta, Aprilis, qui aestati est proximus, susceptionibus adplicetur. Cuius susceptionis necessitas ex kal. Aprilib. in diem kal. Octob. mansura servabitur; in diem vero iduum earundem navigatio porrigetur" (*CTh*. 13.9.3 [380]).
[539] "Ex die igitur tertio idus Nouembres usque in diem sextum idus Martias maria clauduntur" (Veg. *Mil*. 4.39).

This is consistent with the other literary sources which agree that, while not unheard of, winter travel was very rare.[540]

The reason for this is obvious. Even today the weather during the winter months in the Mediterranean is unpredictable and dangerous. Depression systems bring heavy precipitation, clouds, low visibility, and strong winds. High waves and storms are common.[541] Rainstorms bring reduced visibility that impairs navigation, as does the shortened daylight hours. For that reason the government did not use the sea during the winter when it could be avoided.

However, there is evidence that the November to March closing of the seas was not as universal as our sources sometimes imply. Many Roman authors mention merchants who sail during the winter months.[542] There are also signs of more local traffic. A law of Honorius states that the *navicularii* are to deliver 1/3 of the regular tax payments due to Rome at the beginning of the navigation season, which means that by the beginning of April the supplies due to Rome must have already been delivered to the merchants so that they could be ready to transport the grain overseas.[543] The local shipping lanes must have been operational before this date or the supplies would not have been ready for shipment to Rome.

Even on a larger scale, the seas were not quite as dead as is often suggested. There is evidence for ships sailing between Constantinople and Alexandria during these months. Of the 28 edicts sent to Egypt, recording both the date of issuance and of receipt, the highest number (five, representing 18% of the total) were sent in February. This has been plausibly connected with the beginning of the sailing season for the Egyptian grain fleet.[544] If so, this means that in the East the seas were open by February at the latest. The African figures are similar, with February marking the resumption of shipping. It is also

[540] See Beresford 2013, for a contrary view. In his detailed monograph he disputes the idea that the winter months meant a complete halt to sailing, although he does concede that traffic was lighter and the shipping routes may have been shorter.
[541] Beresford 2013, 54-105.
[542] Ael. Arist. *Or*. 26.10-13; Claudian *Cons. Stil.* 2.392-396; Martial *Ep*. 6.80; Paul. Nol. *Ep.* 49.1. See Beresford 2013, 32-52.
[543] *CTh*. 13.5.27 (397).
[544] Duncan-Jones 1990, 22; Beresford 2013, 25.

clear that the sea lanes could be opened at any time of year when it was considered necessary. A fleet of ships were enlisted to carry grain from Sardinia to Rome during the siege of 409/410.[545]

There were, of course, many regions of the empire for which supply by sea was impossible due to their landlocked nature. For some of these areas, supply by land was the only option. For many others there was the possibility of supply by river. Like sea transport, river transport was preferred to land transport whenever possible. Supplying army units by river was often easy when they were garrisoned in forts or cities. It was more difficult to conduct a campaign in this way since the path of rivers could often prove limiting to Roman forces. A mobile target could simply go inland, forcing the army commander to choose between pursuit and staying to protect his supply fleet. Julian's Persian campaign is one of the few to attempt this and this was because of the unique nature of the region. The population of Mesopotamia is highly concentrated around rivers, particularly the Tigris and Euphrates, which meant that his targets were all along the path of the Tigris. It would be much harder to attempt a riverborne supply line in Europe.

River transport, of course, was less affected by the dangers that could appear on the open seas. Storms could still be dangerous, but it was less likely for a vessel to be trapped in the open or be swamped by waves. Rivers did, however, have their own dangers that Mediterranean seafarers would not have to worry about. It was possible for rivers to be blocked up completely by ice or floods (particularly in the northern provinces). At such times the waters would become completely unnavigable.[546] There was also the dangers of sandbars, particularly in Egypt where the water pressure from the annual flooding meant that the nature of the Nile was constantly shifting.[547] During periods of low water level, navigation could be perilous. Droughts could seriously impair

---

[545] Paul. Nol. *Ep.* 49.1. See comments in Walsh 1967, 102. Africa was the more common source of Roman grain, so the closer Sardinia might have been chosen to take advantage of local shipping routes. If so it failed since the fleet was destroyed in a storm.
[546] Campbell 2012, 201-203.
[547] Cooper 2014, 113-117.

the Roman ability to use the rivers.[548] It was also possible for land forces to make the use of rivers perilous in a way that was harder to do at sea. The Avars built bridges during the siege of Sirmium to prevent Romans supplying the city by water and the Persians were able to blockade a river using elephants.[549]

Examples of both the success and the failure of winter river supply appear in our sources. Valens was able to have grain shipped up the Danube during the winter months to prepare for his Gothic campaign.[550] Constantius, on the other hand, was delayed at Valentia because the supplies coming in from Aquitania were delayed by unusually powerful spring rains.[551] Julian had similar problems getting supplies from Aquitania before July.[552]

Analysis of shipwrecks has shown that the size of ships did not change dramatically throughout the Classical period.[553] Among the largest were the ships used for the grain trade from Egypt and Africa. These ships could be immense. Already under Claudius we see the minimum size that he was willing to reward was one that could carry 10,000 *modii* of grain.[554] This number seems to have remained the minimum size for a grain ship since it appears in a law of Valens as the basis for calculating tax exemptions.[555] Each 10,000 *modii* that a ship could carry removed land tax from a set area of land, but no provision was made for ships smaller than this.

Obviously if 10,000 *modii* was the minimum there must have been ships larger than this size. Indeed, by the late second century it required a ship carrying 50,000 *modii* (or a fleet of the minimum size) to receive exemptions from public *munera*.[556] One of our best descriptions of the Alexandrian grain ships comes from Lucian, who provides exact

---

548 Roth 1999, 196-197.
549 Agath. 3.20.5; Men. Prot. fr. 25.1.
550 Zos. 4.11.1.
551 Amm. Marc. 14.10.2.
552 Amm. Marc. 17.8.1.
553 Parker 1992, 26-28. This assessment is based on the size of known shipwrecks.
554 Suet. *Claud*. 18.2-19.1; Gai. *Inst*. 1.32c; Ulp. 3.6.
555 *CTh*. 13.5.14pr. (371). That there was such a standard size can be seen from a law of Honorius which, unfortunately, does not mention what that standard size was (*CTh*. 13.5.28 [399]).
556 *Dig*. 5.3.

dimensions for the vessel.[557] From this description, it has been calculated that the ship was capable of carrying 1,200-1,300 tons (1.1-1.2 million kg), or around 160,000 *modii* of wheat.[558] It would take few ships of this scale to keep any city or army supplied.

Such large ships were obviously limited to the Mediterranean. For transport upriver supplies would need to be loaded onto something smaller. Large rivers such as the Nile used merchant galleys.[559] These were oared vessels that were more capable of navigating the twists and turns of rivers. They varied in size. Some were little more than rowing boats while others were about as big as the sailing ships themselves. A list of 22 *kerkouroi* (the largest type of river boat) carrying grain up the Nile provides some figures. The smallest carried 44,800 *modii* and the largest carried twice that.[560] These ships are not attested after the first century BC, but they demonstrate that river transport did not always mean limited scale. On the Nile, at least, river boats were capable of carrying a similar quantity to ocean-going vessels. Ships of a similar size appear in Islamic Egypt, where it was recognized they could only navigate the Nile for the five months of the year between mid-July and mid-December.[561] This may account for the *kerkouros*' eventual replacement with smaller craft.

Leaving aside such behemoths we are left with the much more common smaller craft. Among the most frequently recorded galleys are the *akatoi*. With 30-50 rowers they would have carried substantially smaller cargoes. With the ever-changing nature of the Nile, smaller ships were more reliable than the larger ones. A new type (or at least name) of river craft that first appeared in the third century was the *polykopon*.[562] This was a small craft attested as carrying between 2,500 and 5,000 *modii*.[563] It was specifically

---

[557] Luc. *Nav*. 5.
[558] Casson 1950, 51-56.
[559] Casson 1971, 157-168.
[560] *P.Teb*. 856; Casson 1971, 163-166. 9,000 and 18,000 *artabs* at a conversion rate of five *artabs* per *modius*.
[561] Cooper 2014, 111-112.
[562] Bagnall 1993, 35; Casson 1971, 331-335.
[563] *P.Oxy*. 2415 (late 3rd Century AD).

associated with grain and even attested carrying army supplies.[564] This was likely the most common means of supply for the army units located along the river frontiers.

Grain was mostly transported loose, poured into the hold.[565] Sometimes, merchants could separate their grain by partitions or bins, but they do not seem to have used sacks for storage. Instead, the grain would be measured out and carried in the sacks before being dumped in the hold by officials called (in Egypt at least) σιτομετροσακκοφόροι.[566] It is not clear whether this same procedure was used for smaller ships and river boats.

While water transport was cheaper in that it shipped more at less cost, this also meant that the risks were higher. Losing one pack animal's worth of supplies was a loss that could easily be easily borne. Losing an entire ship would be harder to recover from. The startup costs were high and the storage capacity that made them so advantageous also meant that significantly more expensive supplies were at risk of being lost in a single incident.

a. ***Navicularii***

Official government transport was mainly carried out by state-monitored shipping guilds known as *navicularii*. These guilds had existed since the early empire as voluntary associations who might contract to transport grain and other supplies for the state in exchange for certain privileges.[567] These began as voluntary associations, but it did not take the emperors long to begin conferring benefits on them to encourage their business. Claudius and Nero gave tax and even citizenship benefits to *navicularii* who supplied Rome.[568] By the time of Hadrian, the *navicularii* supplying Rome were exempted from

---

[564] *Stud. Pal*. 5.119 verso 4.7, 11 (3rd Century AD); *P.Lugd.-Bat*. 2.13, col. 1.6, 12 (4th Century AD), 14.3, 10 (4th Century AD).
[565] "In navem […] cum complures frumentum confuderant" (*Dig*. 19.2.31).
[566] Casson 1971, 200. *P.Berol. Frisk* 1, col. 22, lines 3-4 (155).
[567] Garnsey 1983, 123-126; Sirks 1991, 45-61, 81-107.
[568] Suet. *Claud*. 18.2-19.1; Gai. *Inst*. 1.32c; Ulp. 3.6; Tac. *Ann*. 13.51.

their civic *munera*, essentially making the transport of grain the equivalent of a *munus*.[569] By the time of Severus their obligation was now openly a *munus*.[570]

This was more or less the same situation in place when Constantine assumed the throne. A law from 329 makes clear that *navicularii* are subject to a specific *munus* for delivering supplies and were therefore exempt from all other *munera*.[571] The primary concern of these fleets was always the supply of the *annona civica* for Rome and later Constantinople, but they were expected to provide supplies for the military too. This seems to have been true since the late third century, or at least from the time of Constantine. Constantine's 329 law on *navicularii* was issued while he was on the Danubian frontier, and was likely concerned with issues raised by the delivery of supplies to his army there. They were certainly used in support of expeditionary armies by the time of Valentinian, when supply bases (*expeditionales portus*) are listed alongside the two capitals as a possible destination for supplies.[572] While not specified as *navicularii*, this group would have composed the majority of the fleets mentioned as supplying the Rhine under Julian and the Danube under Valens.[573]

Now that they were under governmental control, the *navicularii* were tightly restricted. A *navicularius* was obliged to serve the transportation needs of the state and the status was passed onto his heirs.[574] While service was mandatory, it was not strictly hereditary. The status was tied to the land. Certain lands came with the obligation to serve as a *navicularius* in proportion to the amount of land owned.[575] A law of 371 gives the rate as fifty *iuga* exempt from taxes in exchange for every 10,000 *modii* transported.[576] Anyone buying *navicularii* land was required to assume these duties.[577]

---

[569] *Dig*. 50.6.5.5.
[570] Lo Cascio 2005, 152; Sirks 1991, 108.
[571] *CTh*. 13.5.5 (329).
[572] *CTh*. 13.9.2 (372), 13.5.35 (412); Lib. *Or*. 54.47. See also *CTh*. 15.14.13 (412), which comes from a time when the emperor had no major campaigns underway. There was an attempted usurpation by the *comes* Africae Heraclianus the following year, but it does not seem to have been anticipated. See Oros. 7.42.10-14; Oost 1966, 236-244.
[573] Amm. Marc. 18.2.3; Zos. 4.10.4.
[574] *CTh*. 13.5.19 (390), 13.5.35 (412).
[575] *CTh*. 13.6.7 (375), 13.5.27 (397).
[576] *CTh*. 13.5.14pr. (371).
[577] *CTh*. 13.6.8 (399).

This seems to have been a common confusion as there are several laws mandating that those buying *navicularii* land must either return it to the guild or else assume the duties themselves.[578]

In tying the duty of transport to the land owned, the state aimed to make it possible for the *navicularii* to support themselves. *Navicularii* estates were immune from paying the land tax and the holder of the office did not have to perform other *munera*. This made them theoretically capable of living off the proceeds of their estates while they conducted service for the state.[579] This income was expected to return them enough to allow them to pay for repairs to their ships.[580]

Navicularii also made a small profit out of their government cargo. When shipping for the government they were given a flat rate and a percentage of the cost of the supplies shipped. The transport of grain from Egypt to Constantinople, for example, is given as one *solidus* for every 1,000 *modii* and 1% of the value of the cargo.[581] This amounts to about 4% of the cargo's worth. According to Diocletian's price edict, the going rate for commercial transport was set at 12%. Two and a half centuries later, Justinian set the rate at 10%.[582] Either way, the *navicularii* were only getting paid a third (or just under) of the standard rate.

Additionally, the *navicularii* were allowed to conduct private business. While prohibited from shipping private cargo alongside public grain, they were able to conduct private business once their obligation to the state had been met.[583] This may have applied only to private cargoes of grain, since the prominence of African pottery, Gazan wine, as well as Phocaean and Cypriot Red Slip Ware, in Italy is best explained by their being carried on *navicularii* grain ships from Africa and Egypt.[584] In addition, they were given

[578] *CTh*. 13.6.2 (365), 13.6.6 (372).
[579] *CTh*. 13.5.5 (326/329), 13.5.7 (334), 13.5.17 (386).
[580] *CTh*. 13.5.14.1 (371).
[581] *CTh*. 13.5.7 (334).
[582] *AE* 1947, 148-149; *JEdict*. 13 (538/539); Jones, *LRE* 828.
[583] *CTh*. 13.8.1 (395). The prohibition about private cargo was due to government fears that the two would be intentionally mixed up. There are a number of laws stressing that selling public grain is illegal (*CTh*. 13.5.26 [396], 13.5.33 [409]).
[584] Whittow 2013, 138.

immunity from the regular taxes placed on tradesmen.[585] The government's goal was to make the *navicularii* largely pay for themselves without requiring government money.

The *navicularii* seem to have periodically declined to the point where direct intervention was necessary. The eastern ones in particular are mentioned in our sources. In 371, Valens ordered the fleet rebuilt.[586] A larger collapse appeared in 409, when Theodosius had his prefect force the Alexandrian and Carpathian fleets to carry supplies to Rome.[587] Responsibility for keeping the *navicularii* in working condition fell to the praetorian prefects.[588] To keep the fleet operational they were allowed to requisition supplies and materials from the local populace and promote local landowners to *navicularii* status.[589]

2.1.2 Land Transport

As can be seen by the famous network of Roman roads spanning the entire the empire, land transport was in common use under the Roman Empire.[590] While land transport was common, it was more expensive than transport by water. There is some disagreement as to how much more expensive. Some views have placed land transport as prohibitively expensive. The most noted example is the statement by Moses Finley in his influential work on the Roman economy:

> A state could afford to engage ox-teams for the extraordinary purpose of shifting marble column-drums for temples (and other endeavors) […] but individuals could not move bulky merchandise long distances by land as a normal activity, nor could any but the wealthiest and most powerful communities […] Towns could not safely outgrow the food production of their own immediate hinterlands unless they had direct access to waterways.[591]

[585] *CTh*. 13.5.23 (393), 13.5.24 (395).
[586] *CTh*. 13.5.14 (371).
[587] *CTh*. 13.5.32 (409).
[588] *CTh*. 13.5.27 (397).
[589] *CTh*. 13.5.14 (371); Jones, *LRE* 828.
[590] For more on Roman roads see Chevallier 1976; Laurence 1999.
[591] Finley 1973, 126.

Finley is not alone in making this argument. Many books discussing transport refer back to his statements. Some have argued that it was as much as 40-50 times more expensive.[592] Engels' study on the logistics of Alexander's army concluded that an army could not travel through a desert for more than four days with a land-based supply chain.[593]

A.H.M. Jones provided his own oft cited figures for the costs of land transport in antiquity based on the prices edict of Diocletian. Diocletian's price edict gives values of 20 *denarii* per mile as a set price for a wagon of 1,200 pounds, eight *denarii* for a camel load of 600 pounds, and four *denarii* for a donkey load.[594] Based on these figures, Jones calculated that it would cost more to ship grain by land for 75 miles than it would to ship it from one end of the Mediterranean to the other.[595]

This minimalist conclusion has been disputed in recent years. Adams provides a thorough criticism of Jones' figures in his work on land transport in Roman Egypt. His chief criticism is that the prices edict does not take into account fluctuation due to regional variations or time, a particularly serious issue when considering the notorious hyperinflation of Diocletian's reign. It also only sets prices for the rental of animals and does not take into consideration the existence of people who owned or could borrow animals.[596]

This does not mean that the Romans did not prefer to use water transport whenever available, or even that such transport was not cheaper than carrying goods via road. It does mean that overland transport was more practical than is commonly recognized. Overland supply routes were used by more than just government-funded groups and merchant caravans were capable of covering vast distances without state support. For example, a regular caravan went from Pelusium, on the border of Egypt, through Palestine to Bostra in Arabia, around 480 km overland.[597] If it was possible to

---

[592] Anderson 1992, 15-16; Hopkins 1982, 86, Table 2 (pages 78-79); Sippel 1987, 38.
[593] Engels 1978, 11-25.
[594] *Edict. Pret. Re. Ven*. 14.8-10. See Corcoran 1996, 205-233.
[595] Jones, *LRE* 841-842.
[596] Adams 2007, 4-8. There have long been questions about the accuracy of the figures given in this edict. See Arnoud 2007; Bagnall 1989, 69-76.
[597] *P.Mich*. 8.466 (107); Adams 1976, 152; Isaac 1990, 120-122; Millar 1993, 93-4.

transport luxury goods over such distances overland then it should have been possible to move less valuable property more modest distances.

While the natural hazards were less serious than with sea transport, there were still limitations placed on the use of land transport. Severe weather could restrict transport, as we can see in the account of the supply convoy sent from Edessa to restock Amida after the Roman reconquest in the winter of 504/505. Caught in a blizzard, the convoy was decimated and most of the men along with their baggage animals died.[598] In northern provinces where such cold weather was more normal, long-range transport would have regularly been impossible throughout the winter. Land transport covers a wide range of transportation options. Transport methods varied greatly depending on the goods being carried, where they were being carried to, and the location within the empire.

a. Wagons

The most efficient means of bulk transport was wagons. Wagons could carry larger loads than pack animals since they were not limited by the size of the animal and the wheels supported most of their weight. They were widely used within the empire as the network of roads allowed for easy operation. However, their value lessened once the road network was left behind. Ammianus describes how one Frankish tribe did not fear Julian, "being protected by rough and difficult roads".[599] Wagons could easily get trapped on uneven ground. The wheels or axles could get damaged, and too steep an incline or too narrow a gap could leave the wagon stuck or broken. Poor weather conditions could make even Roman roads dangerous.[600]

While poor road conditions could make transport by wagon difficult it was rarely impossible. They were used throughout the Roman world and its neighboring kingdoms. Most notably, the nomadic barbarian tribes of the steppes to the north-east made use of

---

598 Ps-Josh. 82 [304].
599 "Scruposa viarum difficultate arcente" (Amm. Marc. 20.10.2).
600 An example of a challenging road is mentioned in Amm. Marc. 15.10.4, where the passage to the Cottian Alps from Gaul is described as being so dangerous that convoys need to tie their wagons (*carpenta*) together and coast them down gently by means of men and oxen pulling behind.

wagons as portable houses.[601] The use of carts was not confined to these peoples and the steppes that made wagons convenient. The Alamanni made use of them too. The Alamanni king, Macrianus, fled from Valentinian in a cart.[602] Hortarius was required by Julian to cart wood from his kingdom for rebuilding the Gallic provinces.[603] Slavic raiders likewise made use of wagons when raiding Thrace in 595.[604]

Even on campaign in enemy territory wagons were frequently used. Julian used wagons (*carpenta*) to carry his surviving ships once he crossed the Tigris.[605] Marcellinus comes records their use on a trans-Danubian campaign in 499.[606] Procopius describes the general John as taking a wagon train from Naples to Rome.[607] While their use had clear limitations, there is no reason to doubt that wagons could be used to get supplies to most places in the Roman empire if people were determined enough to get them there.

There were different types of wagons depending on the number of wheels and the animals used to pull it. The largest was the *plaustrum*, which was a large two-wheeled cart pulled by oxen.[608] Smaller carts were pulled by mules. The *carpentum* was a two-wheeled cart and the *carrus*, a four-wheel cart.[609] The *Theodosian Code* places a limit of 200 pounds (66 kg) for a two-wheeled cart (*birota*), but it is not clear which type of cart is meant.[610] Bachrach has suggested that four-wheeled carts could carry 650 kg and two-wheeled ones 500 kg.[611]

Oxen are powerful but slow moving. Ox-carts in the American West routinely travelled at 19 to 24 kilometers a day, which may be close to Roman usage.[612] Mule-carts are much faster than ox-carts and can cover around 30 kilometers a day.[613] The

---

601 Amm. Marc. 22.8.42, 31.2.10-18; 31.7.5; 31.12.11.
602 Amm. Marc. 29.4.5.
603 Amm. Marc. 17.10.9.
604 Theoph. Simoc. 7.2.4.
605 Amm. Marc. 24.7.4.
606 Marc. com. s.a. 499.1.
607 Proc. *BG* 6.5.3.
608 Roth 1999, 208.
609 Roth 1999, 208.
610 *CTh*. 8.5.8.1 (357).
611 Bachrach 1993, 717.
612 Roth 1999, 211.
613 Roth 1999, 211.

Theodosian Code places a limit of 1,000 pounds (328 kg) on wagons.[614] Diocletian's prices edict gives them a 1,200 pound (393 kg) limit.[615] Diocletian's price edict is an overly careful and conservative document. A tariff from Palmyra considers four camel loads to be equivalent to one wagon load, which even with Diocletian's conservative figures would leave an ox-cart carrying 1,600 pounds (526 kg).[616]

All were in common use throughout the empire, although carts driven by oxen tended to be less favored in the warmer climates of the east where the animals tended to overheat. In desert regions in particular, the oxen's food and water requirements made them uneconomical as a form of transport.[617]

b. Pack Animals

The advantage of pack animals over wagons was one of flexibility. A pack animal can go basically anywhere a human can, whereas a cart is limited to roads and flat terrain. The disadvantage, of course, was their reduced load size. Instead of merely pulling the supplies, pack animals needed to support the additional weight and all the goods had to be arranged in a limited space on their backs. Pack animals would have carried their supplies in sacks on their backs or in amphorae balanced on either side of the animal.[618] Grain in particular, was carried in grain sacks (*sacci frumentarii*).[619] This limited the amount that could be carried substantially.

Donkeys were the most common pack animals in the Roman empire. Diocletian's price edict placed a limit of 200 Roman pounds (65.5 kg) on donkeys.[620] Modern sources suggest that the actual load that could be carried was closer to 70-90 kg. Evidence that even this is conservative comes from an examination of donkey loads recorded in papyri that gives a 103.25 kg average load.[621] The difference between ancient and modern

[614] *CTh*. 8.5.8.1 (357).
[615] *Edict. Pret. Re. Ven*. 14.8.
[616] *Edict. Pret. Re. Ven*. 14.9; *CISem*. 2.3.1.3913 = *OGIS* 2.629 (Palmyra, 137); Roth 1999, 212.
[617] Adams 2007, 62-64.
[618] Roth 1999, 202-204.
[619] Front. *Strat*. 3.2.8.
[620] *Edict. Pret. Re. Ven*. 14.11.
[621] Habermann 1990, 63; Roth 1999, 205-206.

estimates can be considered due to greater concern for the animal's welfare on behalf of modern authors.

Mules were preferred to donkeys since they were hardier, but since they could not breed they were less common and therefore more expensive. Roth suggests that farmers would prefer donkeys to mules at a ratio of four to one or higher as was the case in 19th century Europe.[622] Donkeys and mules were the means of carrying baggage used by those travelling the *cursus publicus*.[623] Mules were hardier than donkeys and could carry more. They were the preferred animal of the Roman army. Diocletian's price edict limits mules to carrying 300 Roman pounds (98 kg).[624] Modern estimates place their capacity as between 72 and 135 kg. They are capable of covering 40-80km per day, which is far better than carts.[625]

Horses were not generally used as pack animals by the Romans. The animals were too valuable as cavalry mounts and personal transport to be wasted on carrying goods. Their use for transport was also wasteful since they could only carry slightly more than donkeys (c.170 kg) yet cost more to maintain.[626]

In desert regions camels were the pack animals of choice. Camels are capable of carrying more than donkeys or mules and have the advantage of being able to pass long periods of time without water. In the words of Vegetius, they are "well suited for sands and enduring thirst".[627] Diocletian's prices edict gave their maximum carrying weight as 400 pounds (132 kg).[628] Once again this seems much lower than actual usage. The most common surviving load given for camels in antiquity (91% of all cases) is six *artabae*, or about 175 kg.[629] Modern estimates go higher, to 188-269 kg.[630] Camels could travel up to

---

622 Roth 1999, 205.
623 Mitchell 1976, 123.
624 *Edict. Pret. Re. Ven*. 14.10.
625 Roth 1999, 206-207.
626 Adams 2007, 58-60.
627 "Harenis et tolerandae siti aptum" (Veg. *Mil*. 3.23).
628 *Edict. Pret. Re. Ven*. 14.9.
629 Habermann 1990, 61.
630 Habermann 1990, 83; Roth 1999, 207-208.

twenty kilometers a day in summer and twenty-five in winter. They are capable of going 3-5 days without water in summer and 5-7 in winter.[631]

c. Human

In addition to pack animals, supplies were sometimes carried by men. At a basic level the loading and unloading of supplies must always have meant human involvement. Animals and ships could not load and unload themselves. Porters (*baiuli*) were used to empty ships and goods from within the cities. The army had two classes of military servants to carry out this duty: the *calones* and the *lixae*.[632]

The main people transporting supplies long distances were soldiers. It was standard practice for Roman soldiers to go on campaign with up to twenty days' supplies on their backs.[633] Soldiers are attested carrying this quantity of rations since Republican times, and it is clear from Ammianus and the *Theodosian Code* that the Roman army maintained the practice into late antiquity.[634] Food transported in this manner would be primarily for the soldiers' own consumption, although some generals were not above putting it to other uses as well. Julian had the forts on the Meuse filled using the grain that his soldiers brought with them.[635] This use of men reduced the need for pack animals and allowed for greater mobility of the army. By the late sixth century this skill seems to have been abandoned as the *Strategikon* recommends one pack animal per squad to carry 8-10 days' provisions.[636] This does not prove that sixth-century soldiers carried none of their provisions since it refers to the animal's usefulness as opposed to a cart when seizing a useful position, but if the soldiers were still expected to carry twenty days' worth of supplies on their backs it would seem strange to mention only the lesser amount.

---

631 Adams 2007, 54.
632 See pages 160-161.
633 Elton 1996, 238.
634 Amm. Marc. 17.8.2, 17.9.2, 16.11.12; *CTh*. 7.4.5 (359); Roth 1999, 68-77.
635 Amm. Marc. 17.9.2.
636 Maurice, Strat. 12B.6

d. Cursus Publicus

The *cursus publicus* was the Roman postal system. It consisted of a network of waystations (*mansiones* and *mutationes*) established along the main highways of the empire where individuals with the correct authorization could make use of horses or pack animals and rest facilities as they travelled from one area to another. The system was maintained as a *munus* from those in the province, and the provincial governors were expected to ensure that the roads and bridges remained in good repair.[637] Procopius provides our clearest description of the purpose of the *cursus publicus*:

> The emperors of the Romans who lived in previous times planned in advance that everything should be reported to them swiftly and with no delay, namely information regarding enemy actions in every province, riots in the cities or other disasters that occurred unexpectedly, as well as the actions of magistrates and all other officials throughout the Roman empire. They also ensured that those who transported the annual tax revenues were safe from danger and untoward delay. For these purposes they instituted a swift form of the public post going in all directions, and did so in the following manner. Along the distance that a lightly equipped man could be expected to cover in one day they built stations, sometimes eight of them, sometimes fewer than that, but at any rate no fewer than five. Up to forty horses were stabled at each station and grooms appointed to the stations in proportion to the number of horses. By constantly changing their horses – which were of the best breeds – those who were assigned to this service could possibly cover in a single day what otherwise would be a ten-day journey, and so performed all the functions I just mentioned.[638]

It is often claimed that by late antiquity the *cursus publicus* was also used to transport taxes raised in kind. Pflaum believed this added responsibility was given as early as the reign of Septimius Severus, when the *cursus clabularis* (πλατὺς δρόμος) was established. The *cursus clabularis* was the outermost lane on the Roman highway and

[637] Jones, *LRE* 830-834.
[638] Proc. *Anec*. 30.2-5. For an apparent example of private use of the cursus see Matthews 2006, 62-68.

was intended for the use of ox-carts as opposed to the *cursus velox* (ὀξὺς δρόμος) which used horses. According to Pflaum (and since followed by Jones and Sirks) the *cursus clabularis* was established specifically for the transport of *annona militaris*.[639] According to this theory, the animals maintained there were the ones used to transport the grain to the central granaries at the government's expense.

The evidence for this is actually very slim. It relies on inferences drawn from three laws. The first is a law of Valentinian which states that *tabularii* arranging for the fodder (*pabula*) for the animals of the *mansiones* and *mutationes* of the *cursus publicus* in Italy must now arrange them to be conveyed at set times to prevent fraud.[640] While this is clearly discussing the supply of the stations of the *cursus publicus*, it does not have anything to do with the *annona militaris*. The second law offers certain people exemptions from the *angaria* for donkeys (*paraveredi*) and carts (*parangariae*) but not an exemption from the *annona militaris*.[641] The connection of these three is simply that they are impositions placed on the inhabitants of the empire. Mentioning two requisitions used for the *cursus publicus* alongside the *annona* does not mean that they were intended to be transported together.

The third example comes from a law abolishing the *cursus velox* in Sardinia due to disuse. It specifies that while the *cursus* shall be disbanded, sufficient wagons shall be maintained for the public goods (*publicae species*).[642] This law is the clearest evidence for the argument that the *cursus* was used to transport *annona*, but "public goods" does not necessarily mean the *annona militaris*. This measure was described as a relief for the financial burdens of the Sardinians, but the cost of the pack animals that would need to be maintained for the transport of *annona* (if that is what was meant by *publicae species*) would be so much greater than the cost of the horses maintained for transport of messages as to make any savings meaningless.[643]

[639] Pflaum 1940, 280-282; Jones, *LRE* 831; Rickman 1980, 120; Sirks 1991, 34, 44 (in which it is compared with the *munus navicularium*), 137 (where it is attributed to Severus).
[640] *CTh*. 11.1.9 (365).
[641] *CTh*. 11.16.18 (390).
[642] *CTh*. 8.5.16 (363). This can also be connected to the annual tributes mentioned by Procopius (Proc. *Anec*. 30).
[643] Kolb 2000, 228-234.

To be clear about what is being stated: the *cursus clabularis* was certainly used to transport items along the road network, but those items did not include the *annona militaris*. The goods being transported would have been the personal items of individuals given authorization to use the *cursus*, along with building supplies for public works, and gold and other items destined for the treasuries of the emperor. There are five laws authorizing the *largitiones* to transport their gold to the central authorities, but the absence of any similar laws concerning the *annona militaris* (despite the much greater resources it would have required) is strongly suggestive that the *cursus* did not play a significant role in the transport of supplies for the army.[644] Supplies may have been transported through the network on occasion, but the *cursus* was not designed to accommodate the freight that they would need to handle in order to be responsible for such shipment on a regular basis.

The use of the state-run transportation network for moving supplies was entirely unnecessary. The susceptors were given a portion of the tax to compensate for the shipment of supplies, which would be redundant if they could transport them for free using the pack animals of the *cursus*. Likewise, the privatization of expenses as seen in the *pastus primipilus* makes no sense if the state was paying the transport costs anyway.[645] There was no reason for the state to overtax its dedicated transport network by loading it down with the maintenance of thousands of additional animals when it could simply force the local populace to transport the taxes themselves as a liturgy. The same roads would frequently be utilized of course, since they were the main transportation routes of the empire, but susceptors and baggage carriers would not have access to the animals and wagons of the *cursus publicus*.

2.2 Stationary Troops

Logistical methods are inevitably different when soldiers are stationed in cities or forts to when they are on campaign. The late Roman army was divided into two basic types of troops: the *comitatenses* and *limitanei*. The supplies for both types of soldier

---

[644] *CTh*. 8.5.13 (362), 8.5.18 (364), 8.5.20 (364), 8.5.40 (382), 8.5.48 (386).
[645] See page 111.

came mainly from the land tax, but there were important differences in the delivery requirements. As such it is best to lay out what is known about each group individually.

2.2.1 *Limitanei*[646]

The *limitanei* were the troops stationed in the empire's border provinces and served under the *comites* and *duces*. They guarded the empire's frontiers and border regions and garrisoned the fortifications and cities that defended the provinces from foreign attack.[647] Unlike the *comitatenses* they did not serve outside their region, although there are examples of *limitanei* being transformed into *pseudocomitatenses* and sent to join the field army.[648] *Limitanei* could be more dispersed than *comitatenses* and as such required more involved delivery systems. While those stationed in the cities could just extract their supplies out of the local granaries, the *limitanei* in the forts of the frontier needed their supplies transported to them.

Because of the high costs of transportation it was one of the most basic principles of the late Roman supply system that food and other equipment should be transported from as short a distance as possible. Ideally, the food and supplies used by the army should come entirely from the province they were based in. This was not always possible for *limitanei*. The government's solution was to expand the burden for the same curial officials who supplied the cities. *Limitanei* formed an exception to the regular rule: "Except in the case of the *annona* for the *limitanei*, no landholder shall be assigned to furnish *mansiones* or to deliver payments in kind at a considerable distance".[649] There are examples of taxes being transported to the opposite sides of the provinces, as with the grain raised from Hermopolis in Egypt, which needed to be shipped 600 km up the Nile to the military garrison at Syene.[650]

---

646 Nicasie 1998, 18-20.
647 Isaac 1988.
648 Jones, *LRE* 651. Jones, *LRE* 126, 208-209, based on Mommsen 1889, 209.
649 "Nemo possessorum ad instruendas mansiones vel conferendas species excepta limitaneorum annona longius delegetur" (*CTh*. 11.1.21 [385], tr. Pharr).
650 Jones, *LRE* 457-458. Syene (modern Aswan) was just north of the first cataract and was thus an important stopping point to collect customs duties on goods shipped upriver.

To ease the burden, the law stated that remote *limitanei* should transport 1/3 of the supplies themselves.[651] Instead of having regular deliveries, these isolated soldiers were to stockpile their supplies and draw from the fort granaries themselves. To save the susceptors from transporting supplies a great distance, imperial law decreed that supplies for the *limitanei* should come from those households nearest them.[652] This meant that, where possible, the *limitanei* would be supplied primarily from food grown locally.

The chief figures at the interface between liturgical and military roles were the *actuarii*. *Actuarii* were not soldiers but accountants who served with the army and ensured that supplies were removed from the granaries and issued to the soldiers. The cost of these supplies was no longer taken out of the soldiers' pay.[653] An *actuarius* was a civilian who was stationed with a military unit to manage their supplies.[654] Beneath them served the *optiones*, military officials in charge of distributing the supplies. The distinction between these two duties is not clear except that the *actuarius* would claim the supplies from the storehouses and perhaps issue them to units while the *optio* would handle the distribution to individual soldiers.

Each *actuarius* was issued with a daily *pittacium*, a requisition form which stipulated how many supplies they were entitled to claim.[655] With this form they were entitled to withdraw supplies from the granaries. While the *actuarii* distributed supplies to the soldiers, the susceptors remained in charge of the granaries. The susceptors governed what came in and out of the *horrea*. They were to issue supplies to the *actuarii* upon receipt of a *pittacium*. They were forbidden to issue supplies in advance or without this *pittacium*.[656] The *actuarii* were issued these *pittacia* regularly, and had to produce them daily.[657] If they did not use their *pittacium* within thirty days they had to pay the

---

[651] *CTh*. 7.4.15 (369).
[652] *CTh* 11.1.11 (365), 7.4.15 (369).
[653] Rathbone 2007, 16, argues that soldiers still paid for their *annona* under Diocletian, but this is based on a narrow reading of a single document. Lo Cascio 2005, 153-154; Mitthof 2001, 81; Roth 1999, 240-241, all date the change to earlier in the third century, although greater precision is impossible.
[654] *CTh*. 8.1.6 (362).
[655] Jones, *LRE* 627.
[656] *CTh*. 7.4.11pr. (364).
[657] The frequency that *pittacia* were issued varied at different periods. In 364 the period was two days (*CTh*. 7.4.11), which increased to two the following year (7.4.13), and by 377 it was back to one day or "certe competenti tempore" (7.4.17).

soldiers or the storehouse for their failure to do so.[658] Rations were issued in the form of *annonae*. Each *annona* was the daily ration for a single soldier. *Actuarii* were also responsible for issuing the *capita*, or fodder allowances.[659]

The law is clear about the proper functioning of this system. In practice, it seems it was possible to play very loosely with the rules. We are fortunate enough to have a papyrological archive from the *limitanei* fort at Dionysias in the Fayyum containing many letters of Abinnaeus, the *praefectus alae* of the cavalry unit stationed there, to various officials and subordinates.[660] For the most part, the letters do not contradict what we know from the legal sources. The collection of the fort's supplies was carried out by liturgical officials (the ἐξάκτωρ and ἐπιμεληταί), the *actuarius* was in charge of the supplies for the soldiers, and the majority of supplies came from the neighboring villages. Where things do not line up is with some of the details.

The largest difference between the law codes and the papyri in the archive is that the soldiers are directly involved in the raising of supplies. Not only do we see soldiers transporting supplies to their camp, we also see them helping the *epimeletai* to collect them.[661] There can be no question that this goes against several imperial laws, although they all date to after this time.[662] It is important to note that this is not simply an example of the military extorting from the civilian population. The soldiers are working closely with the liturgical officials to bring supplies into the fort, and it is clear that they will not do so until given the amount due by exactor or *epimeletes*.[663] Nonetheless, the potential for abuse is obvious. The casual ease with which the army's actions were carried out may explain the later imperial attempts to stamp out this collusion.[664]

The archive also reveals some of the flexibility allowed in the system. One of the questions the *epimeletes* has for Abinnaeus is whether he should honor the chits

---

[658] *CTh*. 7.4.16 (368).
[659] *CTh*. 7.4.13 (363), 7.4.11 (364), 7.4.17 (377).
[660] *P.Abinn*. 1.11; Bell et al. 1962, 13.
[661] *P.Abinn.* 4.9-12, 29.
[662] *CTh*. 7.4.26 (401), 11.7.16 (401).
[663] Bell et al. 1962, 18.
[664] See pages 257-259.

(ὄστρακα = *pittacia*?) being given to him by a local group of soldiers on detached duties.[665] According to the law codes this should be solely the *actuarius*' responsibility, but since the *epimeletes* is closer to the soldier than the *actuarius* they have gone to him.

Another sign of flexibility is that one of the letters comes from the fort's *actuarius* himself (a man called Agathus). He has been detained by an official of the *dux* and is unable to get back to the fort to handle the import of supplies. The *epimeletes* has shown up but does not have all the *annona* that he promised and Agathus wants Abinnaeus to detain him there until he returns.[666] From this it is clear not only that the *actuarius* had more substantial duties than just distributing supplies gathered by others, but that he was in control of the granary. If a susceptor was responsible for controlling the granary then Agathus' interface with the *epimeletes* would not be needed.

The system of supply for the *limitanei* changed over time. The law code makes clear that from the time of Gratian onwards the *limitanei* were paid in coin rather than kind.[667] On first glance this appears absurd since if any group of soldiers needed their supplies delivered to them it would be these isolated units often stationed miles from any of the main market towns. However, when taken in combination with some other aspects of *limitanei* organization the change makes sense.

An element that appears several times in the laws is the issue of *limitanei* farmland (*limitotrophi fundi*). It is clear from these laws that land nearby to the forts and garrisons manned by *limitanei* were farms held under their ownership. The connection to these soldiers is not a linguistic coincidence. The land was intended explicitly to serve as a source of profit for the *limitanei*.[668] When this factor is taken into account the reason for the switch from payment in kind to payment in coin becomes clear. Instead of being given coin to then use to purchase their supplies the *limitanei* are essentially being reimbursed for the goods that they are providing for themselves.

---

[665] *P.Abinn*. 4.17-20.
[666] *P.Abinn.* 26.10-20.
[667] *CTh*. 8.4.17 (389?).
[668] *NTh*. 5.2 (439), 24.1.4 (443).

The question of who was doing the farming is not one that the sources address directly. According to Theodosius II, "the *limitanei* used to care for these lands and cultivated them for their own profit".[669] If taken at face value, this would make them of a different character from other tax exemptions in that the holders were expected to fulfil two tasks at once rather than gaining their tax exemption for a single service.[670] What we know of the *limitanei* also does not suggest that they were a mere "border militia" or "peasant-soldiers", serving part-time in the garrisons and part-time in the fields.[671] *Limitanei* were occasionally turned into soldiers of the field army under the term *pseudocomitatenses*, which would be highly unlikely to occur if they were not full-time soldiers.[672]

Our best insight into this system comes when it was falling apart. By the time of Theodosius II, much of the *limitanei* land had been sold to private individuals. No fewer than five of his laws deal with the sale of land set aside for border troops.[673] This land was tax exempt and was supposed to remain in the hands of the border troops. This looks very similar to the situation established with the *navicularii*. Certain estates were assigned to support a set number of *limitanei* and expected to pay for it out of their tax exemptions. These would be the farms that were expected to provide a set number of soldiers for the *limitanei*, with the farming itself done by the remaining family members

---

[669] "Agros […] limitanei milites […] ipsi curare pro suo conpendio atque arare consueverant" (*NTh*. 24.1.4 [443]).
[670] Some scholars have certainly taken it this way. See Ferrill 1986, 46, 49; Luttwak 1976, 171; MacMullen 1988, 175-176; Pharr 1952, 574; Treadgold 2014, 305. The discovery of farm implements in the barracks at Dichin may support this, but it is unclear what type of unit operated this fort (Poulter 2007a, 87-89, 92-94). Poulter suggests that they may have been not *limitanei* but Gothic *foederati* given farmland by Theodosius I in exchange for service.
[671] Jones, *LRE* 649-654; Isaac 1988; Whitby 1995, 110-116.
[672] Jones, *LRE* 651.
[673] *CTh*. 5.12.2.1 (415), 7.15.2 (423); *NTh*. 5.2 (439), 5.3 (441), 24.1 (443).

or tenants.[674] In exchange for shouldering this imposition, they were “free from every *munus*” “without any burden of tax payment”.[675]

The conditions of the *limitanei* did not improve over the fifth century. As the western provinces fell the central government obviously ceased all payments to their soldiers on the old Roman borders. In the frontier regions still held by the government in Ravenna, some *limitanei* continued to function into the middle of the century. Eugippius mentions two units of *limitanei* in Raetia and Noricum into the 450s. Eventually, their supply lines were cut off and the party sent to retrieve their pay was murdered before it could get to Italy.[676] There is no indication that the soldiers relied on government-shipped food. While they needed coin to pay for their supplies they were fully capable of living on the produce of the region.

The situation in the East seems to have been better. The *limitanei* units in Mesopotamia were still functioning normally during Kavad’s invasion of 502-505 although they were apparently no longer stationed in cities such as Amida.[677] After this point matters are less clear. According to Procopius, by the time of Justinian’s Persian Wars the *limitanei* were owed four or five years of backpay and upon conclusion of peace a part of the government’s debt was written off on the rationale that the peace would be more beneficial to the border troops than money.[678] On the other hand, Justinian did

---

[674] While any estate was expected to provide soldiers, the evidence suggests that most of the time the burden was met by a cash payment instead. Most soldiers were raised from specific groups, such as the barbarian tribes settled on Roman soil as *laeti*. Jones, *LRE* 219-220, suggests that border regions were a better source of willing recruits than the core territories based on a comment by Ammianus about the Gauls not sharing the Italian habit of cutting their thumbs off to avoid service (Amm. Marc. 15.12.3).

[675] “Ab omni munere vacuos” “sine ullo [...] conlationis onere” (*NTh*. 24.1.4 [443]). We see something similar in the provinces of Armenia where the royal farms (*regales fundi*) which had previously been used to provide garrison soldiers were being purchased by private individuals who then profited from the confusion. Theodosius allowed these owners to keep ownership of the farms provided they then provided soldiers and other supplies as was customary (*NTh*. 5.3.1 [441]). Since this law is placed in a section dealing with *limitanei* lands they presumably relied on something similar.

[676] Eug. *Vit. Sev*. 4.1-4, 4.20.

[677] Certainly none appear in Ps-Josh.

[678] Proc. *Anec*. 24.12-13. Some archaeologists claim to have found evidence to support the idea that limitanei were now reduced to little more than soldier-farmers. Rosser 1985, 253; Rizos 2010, 115-117. It is difficult to reconcile this with some of the details known about the efforts taken to supply the Danubian provinces (See pages 196-205). See Curta 2001, 184; Pillon 2005, 33-55; Sarantis 2016, 26-27; Whately 2013, 895-901.

restore the *limitanei* to the recovered African provinces so he must have seen some use for them.[679]

2.2.2 *Comitatenses/Palatini*[680]

The *comitatenses* (and later *palatini*) were the troops of the mobile field armies. They were the units that could be deployed where needed to meet major threats or spearhead campaigns. They fell under the command of the *magistri militum*. Despite being a mobile field army, they were often almost as permanent a fixture as the *limitanei*. When Julian dismissed his army into winter quarters Ammianus describes him as "dispersing the soldiers among their customary posts".[681]

The supply of the *comitatenses* and *palatini* was far simpler than the supply of the *limitanei*. Field army units were stationed in the cities of the empire, which meant that the grain needed to feed them did not need to be shipped any further than this. The basic method of distribution was the same as it was for the *limitanei*. When Diocletian visited Egypt in 298 with his army, the government used the same officials and methods to raise supplies.[682] The main differences had to do with the command structure. While the *limitanei* were closely integrated into the provinces they served, the *comitatenses*' situation was slightly less certain. Even when they had been stationed in one region for a period there was always the possibility that they might not be there the next year.

For that reason, the *magistri militum* sent out military officials called opinators along with *litterae delegatoriae* (warrants) issued by the praetorian prefect.[683] These opinators placed themselves with the governor to oversee delivery. The governor had one year to arrange the supplies or he would purchase them himself. Opinators were strictly forbidden from involving themselves with the actual tax collection, although like the soldiers of the *limitanei* it must be doubted that they entirely refrained from doing so.[684]

---

[679] *CJ* 1.27.2 (534).
[680] Nicasie 1998, 16-18.
[681] "Disperso per stationes milite consuetas" (Amm. Marc. 17.10.10).
[682] *P.Beatty Panop*. 1.53-59.
[683] *CTh*. 11.7.16 (401).
[684] *CTh*. 11.7.16 (401).

When the governor had collected all the necessary supplies the opinator would return to his unit. Essentially, the opinator's task was to act as a relay between the *magister militum* and the governor. Since the civil and military chains of command were separate, it was important to have one official with a foot in both spheres.

Once the supplies had been collected they would be stored in the granaries under the control of *praepositi horreorum* or susceptors. These officials would then distribute grain to the *actuarii* in the same way they did to the *limitanei*. While there was little difference in duties, the *actuarii* of the *comitatenses* and *palatini* received substantially better pay than those serving *limitanei* forces due to the higher status of the forces. The *actuarii* of the field army received six *annona*e and six *capita* to the *limitanei*'s four.[685]

2.2.2 Winter Quarters

Field armies in Europe spent about half of every year (late October to June) in winter quarters (*hiberna*), much of it during the winter season that was the most dangerous for transport. Conditions in the East made the campaign season a bit more variable, but it was still regarded as unwise to campaign after late October and before March.[686] These winter quarters generally involved being billeted in cities and towns.[687]

Six months' supply for armies in the tens of thousands was a significant burden on the local communities. Cities tried to keep some extra grain on hand to help during famines and sieges, but they were unlikely to have enough to supply that many soldiers for so long.[688] For that reason emperors generally prepared their winter quarters well in

[685] *CTh*. 8.1.10 (365). The comparison is made between the *comitatenses*/*palatini* and the *pseudocomitatenses*. We know from another law (*CTh*. 7.1.18 [400]) that the *pseudocomitatenses* were regarded on the same level as the *riparienses* and *castriciani*, which are the same as *limitanei*, and it has been concluded that the *pseudocomitatenses* were in fact *limitanei* that had been brought into the field army.

[686] The rising of the constellation of the Kids (early October) marked the end of the campaigning season (Amm. Marc. 19.9.1) and Julian's departure on 5 March was considered early (Amm. Marc. 23.2.6; Soc. *HE* 3.21:1). With one or two notable exceptions (the January invasions of Severus and Gordian III for example, the latter not being successful) the Romans did not campaign during these months. See also Lee 1993, 90-101.

[687] Agath. 1.19.3; Amm. Marc. 14.11.15, 16.4.1, 21.0.5; Ps-Josh. 65; Zon. 2.34.2. See Lee 2007b: 165-166.

[688] Rickman 1971, 163-193, gives an idea of the scale.

advance. Julian gave notice to the governor in Tarsus in early spring 363 that he intended to winter there on his way back from Persia at the end of the year.[689] This would have given the municipal officials time to transfer sufficient grain from the *annona* to the city's stockpiles.

Another clear example of deliberate selection is shown by Julian once he rebelled against Constantius. While previously Julian had elected to winter at Paris, a city near the frontline but not under direct threat, in the winter of 360/361 he chose to base himself in Vienne.[690] This city was too far from the front lines to be practical for campaigning on the Rhine (it was almost 400 kilometers south-east of Paris), but it was ideally positioned for a move into Italy. Vienne was being used as a storage depot during his Alamannic wars since his prefect Florentius used his duties there as an excuse to avoid Julian.[691] Julian's use of it in preparing for his campaign against Constantius is a clear indication that he was taking the supply situation into account.

2.3 Troops on Campaign

2.3.1 Campaigns Outside the Empire

The major difference between supplying armies stationed in the cities of the empire and supplying them while on campaign was that in the latter circumstance the army had to effectively carry its granaries with it. This produced an entirely different set of problems, and ones which liturgical officials could not handle. On campaign, the army relied entirely on its own logistical network.

For imperial campaigns, it was the prefect who was responsible for ensuring that the army remained supplied. The prefect did not sit in his prefectural seat and organize matters from afar but was directly and closely involved on the ground. This role can be seen in Florentius' presence at the battle of Strasbourg.[692] There was no reason to bring

[689] Amm. Marc. 23.2.5.
[690] Amm. Marc. 21.2.5.
[691] Amm. Marc. 20.4.6
[692] Amm. Marc. 16.12.14.

one of the empire's chief administrators with the army on the eve of battle unless he was expected to be directly overseeing the army's supply. The following year, Florentius even assumed command over a portion of the army to transport supplies. When he met up with Julian it was at the head of an army.[693] Julian brought his prefect with him on his Persian campaign as well. Salutius followed Julian from Gaul and assumed supply duties for the army. It is in this role that he can be seen executing an unfortunate apparitor who was late in delivering his promised provisions.[694] He travelled with the army to the end, almost being killed in battle, and was even offered the throne once Julian had died.[695]

A similar example might be seen in Valens' prefect, who travelled with the army to Adrianople. Unlike Florentius he was left in in the city while the army marched to battle, but this was probably because there was no use for a supply officer when the enemy was less than a day's march away.[696] The army's baggage and supplies were left in the city as well, so any supply duties would have required he stay there.

While these examples show that the prefect could be brought along on imperial campaigns it is also clear that they did not have to be. When Julian summoned Florentius in 360, his prefect refused to attend on the army on the grounds that he was busy arranging supplies in Vienne.[697] As long as the prefect had been able to arrange for the collection of supplies in advance it was possible to conduct a campaign without them. This use of the prefects as supply officials for campaigns died out during the fifth century as emperors ceased campaigning. The prefects did not leave Constantinople to serve as supply officers on campaigns, with the exception of the specialized supply prefects (*praefecti praetorio vacantes*) who were appointed for major expeditions.[698]

---

[693] Amm. Marc. 18.2.4.
[694] Amm. Marc. 23.5.6.
[695] Amm. Marc. 25.5.3; Zos. 3.29.3, 3.36.1.
[696] Amm. Marc. 31.12.10.
[697] Amm. Marc. 20.4.6
[698] See pages 169-174. The key exception here (in many ways) is the prefect Marinus who was sent by Anastasius not merely to supply the forces but to command them. This is an exception that proves the rule since everything about Marinus' command was extraordinary and was only brought about because Anastasius' regular generals were reluctant to confront the rebel Vitalian. Even here, Marinus did not travel far from Constantinople and the main battle was fought at the Golden Horn. See Haarer 2006, 175-179; Meier 2009, 281-284; *PLRE* 2.726-728 (Marinus 7).

When the emperor was not present, the generals had wide-ranging control over their supplies. Overall authority is attributed to the general in charge, and it is clear that the commanding officer had a large degree of leeway in how he went about gathering supplies. When campaigning independently of Julian, Barbatio seized the supplies intended for the Caesar and burned what was left.[699] This was regarded as insubordination because of who the supplies were destined for, but there was no suggestion that a general did not have the authority to seize supplies in this manner.

Another case demonstrates this authority well. When Lepcis Magna was attacked by Moorish tribes they pleaded for help from Romanus, the *comes Africae*. When he arrived he demanded that they provide him with supplies and 400 camels before he would assist them.[700] Ammianus spends an entire chapter outlining this demand and the aftermath, which ended up going to the highest levels of government. It is often dismissed as an example of typical government corruption, but the corruption that truly outraged Ammianus came later, when Romanus suborned one of Valentinian's *notarii* into backing him at court and so arranged for the envoys complaining of his behavior to have their tongues cut out.[701]

The case may have descended into soap opera theatrics but there is no reason to doubt that the initial demand was a common and accepted practice. Ammianus stresses that it is because the people of Lepcis had lost their fields in the raids that they refused to provide the demanded supplies. Furthermore, he makes clear that the soldiers felt themselves to be slighted by the refusal of the African cities to pay for their defense and even assaulted the envoy who brought the complaint to the emperor.[702] In all likelihood, it was simply the Africans' long familiarity with peace that led to them protesting so strenuously against what was really a very common measure.

Further evidence that such behavior was tolerated comes from the way that Ammianus treats the failure to demand supplies from the provincials as astonishing

---

[699] Amm. Marc. 16.11.12.
[700] Amm. Marc. 28.6.5.
[701] Amm. Marc. 28.6.
[702] Amm. Marc. 28.6.23.

evidence of Theodosius the Elder's virtues as a commander.[703] Theodosius himself showed much concern with the supply of his army, demanding grain from his defeated enemy and arranging his own storehouses should anything go wrong in battle.[704] The casualness with which Ammianus describes Theodosius' control of supply emphasizes how very involved generals were with the process when operating independently.

The system of distributing supplies for a campaigning army was capable of operating on a basic level without a great deal of top level oversight. Transportation and distribution of supplies on campaign would have been more bottom-heavy organization than the collection and transport of such supplies to garrisoned soldiers. The basic purpose of the system (the issuing of supplies to the soldiers) was carried out by those at the lower or middle levels of the organizational ladder. Many of the tasks fell to the soldiers themselves. Indeed, soldiers carrying their own supplies would need to manage their rations themselves.

The baggage train itself was run by the *calones*, military slaves (probably owned by the state) who filled various duties for the soldiers.[705] They were responsible for feeding and maintaining the pack animals as can be seen from a story Ammianus recounts about *calones* killed when the pile of fodder they were using collapsed on them.[706] In most places where they appear as a group they are in close proximity to the baggage train. When Barbatio was forced to retreat, the *calones* were captured alongside the baggage animals used to carry supplies.[707] When Julian was marching down the Euphrates he placed the *calones* with the baggage animals in between the columns of soldiers, as indeed is recommended by Vegetius.[708]

Also involved in the supply train were the *lixae*. While most of their duties seem to be similar to the *calones*' it seems that this position had higher prestige and not all of

[703] Amm. Marc. 29.5.10.
[704] Amm. Marc. 29.5.13, 29.5.44.
[705] See Roth 1999, 101-110.
[706] Amm. Marc. 23.2.8.
[707] Amm. Marc. 16.11.14.
[708] Amm. Marc. 24.1.4; Veg. *Mil*. 3.6.

them were slaves. [709] It was from among the *lixae* that the leaders called *galearii* were selected. These *galearii* were given charge of up to 200 pack-animals and baggage handlers, serving as a sort of officer among the support personnel.[710] These were the organizers of the day-to-day aspects of the supply chain.

When possible, the Romans made use of water transport in their campaign supply chain as well. Constantine's campaign against Licinius was an example of an effective combined arms operation, which was supplied by sea.[711] The most famous example of a naval supply chain is Julian's Persian expedition of 363. He marched down the Euphrates supported by a fleet of 1,000 cargo carriers run by nearly 20,000 soldiers.[712] Yet Julian's campaign was not entirely nautical-based. He also brought a large animal-based baggage train along with him, as can be seen by his continuance of the campaign after his supply ships were burned.[713]

This campaign demonstrates why a water supply chain was restrictive. The Euphrates provided an ideal situation for invading armies wanting to use a water-based supply chain. The river lead directly to the Persian capital of Ctesiphon, via the canal of Naharmalcha. All the major settlements were on the river and the army was capable of marching within support range of the fleet. If even in these circumstances a solely naval-based supply line was impractical, we should not expect to see it relied on exclusively anywhere else. Naval supply could supplement or ease a baggage train, but it could not replace the need for one. Sooner or later the army would need to leave the river.

Indeed, in most cases a naval supply line was open to more dangers than it solved. When unchallenged control of the water was uncertain a naval supply line meant that the survival of the Roman army was entirely dependent on an independent military force

---

[709] Roth 1999, 101-110. *Lixae* were apparently also involved in cooking and the sale of food to the soldiers. See Thorburn 2003, 49-51, 57-58.

[710] Veg. *Ep. Mil*. 3.6.

[711] Zos. 2.22.1-24.3. Supposedly he had as many as 2,000 transports to support an army that Zosimus records as 130,000 men.

[712] Amm. Marc. 23.3.9, 24.7.4. Zos. 3.13 and Zon. 13.13 [66], provide the similar number of 1100 ships, although Zonaras has mistaken the supply fleet for part of the navy and divides the ships between 700 triremes and 400 supply ships. See Dąbrowa.2007.

[713] Amm. Marc. 24.4.7, 24.5.5; Zos. 3.24.1.

which they could do little to assist in a crisis. In the Roman invasion of Africa in 468, Heraclius moored his ships as soon as he conquered the cities of Tripolis, and then marched with his army on Carthage using a conventional baggage train.[714] Basiliscus, leading the other army, did not do so and consequently his invasion ended as soon as his fleet was destroyed by Vandal fireships.[715]

The main use of water transport was simply to fill the granaries and storehouses that their land-based baggage train would then draw from. This was how Julian used his fleet in 358, bringing 600 ships from Britain down the Rhine in order to fill his granaries in preparation for his campaign.[716] Valens did the same in preparation for his 367 Gothic war, having the supplies "conveyed [...] on a large fleet of transports through the Black Sea to the mouths of the Danube, and thence by means of river boats stored […] in the towns along the river to facilitate the supply of the army".[717] This gave the Roman army the advantages of ship transport (large quantities of supplies in the region of campaign) while keeping a more reliable form of supply.

2.3.2 Campaigns Within the Empire[718]

Increasingly during the fourth century, and almost universally in the fifth, Roman campaigns were conducted within the empire. This posed a different set of problems and opportunities to those raised by external campaigns. For the most part, their supply chain continued to use the same methods. The organization of the baggage train would have been little different, as would the rations and methods of distribution. What altered was the frequency with which the methods of raising and transporting supplies would be utilized.

One major advantage of campaigns conducted within the empire was that it allowed the Romans to make use of their own road and river networks. They did not need

---

[714] Proc. *BV* 1.6.9. Merrills & Miles 2010, 121-122.
[715] Proc. *BV* 1.6.10-26.
[716] Iul. *Ep. ad Ath*. 279D-280B.
[717] ὁλκάδων πλήθει τὴν στρατιωτικὴν σίτησιν διὰ τῷ Εὐξείνῳ Πόντῳ ταῖς ἐκβολαῖς τῷ Ἴστρῳ παραδιδὼς, καντεῦθεν διὰ τῶν ποταμίων πλοίων ταῖς ἐπικειμέναις τῶ ποταμῶ πόλεσιν ἐναποτιθέμενος ὥστε ἐξ ἑτοίμῳ γενέσθαι τῷ στρατοπέδῳ τὴν χορηγίαν (Zos. 4.10.4, tr. Ridley).
[718] See Whitby 2007, 325-328.

to worry about crossing unfamiliar terrain or using unknown paths. Internal supply lines meant that armies had greater variety in sources for their supply and could count on reliability better than their enemies (except during civil wars). This came, of course, with the disadvantage that they could no longer expect to live off the land. The farmland they went past would be owned by Roman citizens, who were needed alive in order to pay their taxes. In a warzone, this land would frequently have been already ravaged by the enemy, leaving nothing for a campaigning army to subsist on.[719]

Probably the biggest advantage of campaigning within the empire was that it allowed the cities of the empire to be used as supply bases. Campaigns could be conducted from or within days of their main supply bases. No bulky baggage train or undefended supply line was required to conduct warfare. Roman emperors knew this and planned their campaigns according. At Adrianople for example, the enemy army was camped out only a day away and Valens accordingly left his supplies in the city.[720]

A result of this was greater versatility. When Shapur gave signs of resuming his invasion of Roman territory, Constantius left his base in Antioch and rushed to Edessa. There is no indication that Constantius had to delay to bring his supplies with him. Rather the presence of supplies in Edessa was one reason why Constantius was able to leave Antioch immediately and bring his army to the region.[721] By keeping the cities fully stocked, the mobility of the Roman response could be increased.

3. Conclusions

The Roman empire had a large storage capacity due to a network of granaries scattered throughout the empire. Because of this storage capacity, the empire was able to transport large quantities of supplies across the empire quickly and effectively. The Roman empire had many means of transporting its supplies. Water routes were the fastest and cheapest way of transporting supplies, but the degree to which this is true has often

---

[719] Thorne 2001, 225-253. See Hanson 1980, 137-173, for the view that such ravaging left little permanent damage.
[720] Amm. Marc. 31.12.10.
[721] Amm. Marc. 21.7.7.

been overstated. Land transport was practical too and was often used. In both cases, the main transporters were men fulfilling liturgical obligations. The government compensated these men for the costs to some degree by giving them a percentage of the supplies transported, but they would also have relied on private trade to remain solvent. *Navicularii* also received immunity from the land tax.

The *limitanei* and *comitatenses* in garrisons were supplied through what was largely the same system. Army units in garrisons were issued grain directly from the liturgical officials responsible for organizing its collection and transport. Officially, the soldiers had very little involvement with the process of supply, but their real role may have been more involved than we know. On campaign it was different as the army used its own supply officials and followed different policies of distribution.

CHAPTER IV: LATER DEVELOPMENTS

1. INTRODUCTION

While the basic structure of the commissariat was established during the fourth century, the fifth and sixth centuries did see the system undergo some modifications to meet the changed circumstances of the period. The state's reliance on local curial officials was considered problematic and so the emperors made several attempts to place such duties onto others. At the top level of the system, the emperors experimented with a couple of different supply chiefs. Both served as replacements for the praetorian prefect, although their use and duties differed.

2. THE CHANGING NATURE OF TAX COLLECTION

2.1 Switching Offices

The most significant changes were implemented by Valentinian and Valens, although most of their reforms do not seem to have continued after them. The main goal of these reforms was to find a way to remove tax collection from the control of the curial class. It was a common complaint that curials were abandoning their obligations in favor of service in the imperial ministries.[722] Furthermore, the curials who were conducting the tax collection were considered corrupt and prone to conspiring with their elite peers to ensure that they paid as little of the tax as possible.

To counter this, Valentinian and Valens tried to switch the recruitment of susceptors from curials to *exofficiales* of the governor's staff.[723] This was essentially converting the local liturgical system into a centralized one. The reasoning seems to have been that it would be easier to hold *officiales* accountable than it was with curials. The immediate result of the law was a shortage of men for the positions. Within a year both emperors chose to disregard the law for key provinces.[724] The reason cited by Valens was lack of qualified *officiales*. Valentinian simply believed that the African *curiae* were

[722] *CTh*. 12.1.186 (429); *NMaj*. 2.2 (458); Jones 1974, 16-19. See page 89 n. 310.
[723] *CTh*. 12.6.7 (365/364), 12.6.6 (365).
[724] Africa (Valentinian): *CTh*. 12.6.9 (365); Cilicia (Valens): *CTh*. 12.6.5 (365).

responsible enough to regulate themselves. By the 390s at the latest the susceptors became exclusively curial posts again.[725]

2.2 The Return of the Coin

The largest change to the taxation system was the transition back to a coin-based land tax. The *annona militaris* continued to be collected, but increasingly during the late fourth and early fifth century these taxes in kind were commuted to coin. This process was referred to as *adaeratio*. Instead of calculating the tax in monetary terms, the prefect would issue his indictions as normal in terms of *annonae*. The tax would then be commuted to coin at set rates that varied depending on imperial commands and the market value in the region.[726]

The process started gradually under Valentinian and Valens, with some *riparienses* being given their *annona* in kind for nine months and in coin for three.[727] This was not intended to allow every soldier to make such a change. Imperial laws continued to forbid the commutation of *annona* into coin into the 390s.[728] Under Theodosius' sons we begin to see *adaeratio* being conducted more universally. Laws outlining the process to be followed for such commutation and the prices to be established appear as early as 396.[729] From this point on *annonae* came increasingly to be collected in coin. The transition was complete by the 450s in the west when the Emperor Majorian's land tax was entirely coin based.[730] The east took somewhat longer. In the early sixth century Anastasius converted most of the rest to gold, but he still collected grain to feed the army.[731]

---

725 Laniado 2002, 104-107; Lenski 2002, 297-298; Schmidt-Hofner 2008, 120-147.
726 Jones 1974, 169-170.
727 *CTh*. 7.4.14 (365).
728 *CTh*. 7.4.18 (393), 7.4.20 (393). Similar prohibitions were in effect for the *annona civica* for Rome (*CTh*. 11.1.8 (364).
729 *CTh*. 7.4.22 (396), 8.4.19 (396).
730 *NMaj*. 2.3 (458).
731 Jones, *LRE* 460. That the sixth-century army was still provisioned by the state can be seen by the fact that one of the justifications for the revolt of Vitalian was that the soldiers had been denied their annona (Joh. Ant. Fr. 214). This was apparently not the carried over to the west. See Cassiod. *Var*. 11.39.4, which likely indicates a holdover from Western imperial policy.

The transfer of tax revenue into coin and then using it to buy grain seems at first glance like an unnecessary extra step. Certainly it would have disadvantaged the farmers who now had to sell their grain to make the payments. However, it would have aided the government immensely. Coin did not decay and could therefore be stored indefinitely. Transporting it was also simpler, as the monetary value of the *annona* weighed less than the equivalent in grain. The state was certainly confident that it could forcibly purchase grain when necessary. Constantinople kept a permanent treasury of 500 *solidi* for use supplementing the *annona civica* during famine.[732]

2.3 The Cure for Curials

The emperors after Valens and Valentinian did not make any major changes to the system of curial tax-collection, but the issues that the imperial brothers had recognized were still very much present. To reduce local corruption and ensure a greater level of control, Anastasius, on the advice of his prefect Marinus, appointed new officials called *vindices* in the cities of the empire.[733] These *vindices* were essentially replacements for the exactors, who decline in frequency after this point, and their main function was to supervise the liturgical officials and ensure that they were not taking more than they were permitted or favoring relatives and associates over other taxpayers.[734] There is nothing new about the use of officials from the central government monitoring curials, but the innovations here were twofold. First, the *vindex* was not an official from the prefect's or any other central magistrate's office, but someone who had made a bid for the post.[735] Second, the *vindex* was a regular official rather than an extraordinary one, and would stay in the city for some time. It would be harder to evade a *vindex*'s attention than that of a temporary prefectural official.

---

[732] *CTh*. 14.16.1 (409). By 434 this treasury had increased to 611 *solidi* (14.16.3).
[733] Evag. 3.42 [144]; Lydus, *Mag.* 3.49; Malal. 16.12 [400]. See Haarer 2006, 207-211; Haarer 2015; Laniado 2002, 27-36; Meier 2009, 130-135.
[734] Haarer 2015. The position of exactor continued to exist, though it is rarely attested, until at least the late sixth century. See *Nov. Const*. 1.12.4 (578/582).
[735] Lydus, *Mag.* 3.49.

Local reaction among the curials was, as might be expected, severe. Evagrius states that “as a result of [the creation of the *vindices*] the revenues were greatly reduced and the flower of the cities lapsed”.[736] John Malalas claims that this meant dissolving all the *curiae*.[737] John Lydus was even more upset, stating that:

> When [Marinus], a Syrian and knavish, as is usually the case, had taken over the taxes, he undid the curial councils of all the cities, selling off the subjects to anyone, as it chanced, provided only that the latter promised him the greater amount, and, in place of the municipal councilors, who from the first had been fixing the tax requisitions, he appointed the so-called *vindices* (for thus the Italians are accustomed to call the “avengers of the gods”), who, when they had gotten control of the contributors, treated the cities as nothing less than enemies.[738]

Despite his contempt for the position he does (unlike Evagrius) concede that it was at least effective at increasing the amount of taxes raised.

Obviously, these sources cannot be relied upon to give us an impartial assessment of the *vindices*. For one thing, it appears that the *vindices* were not nearly as ubiquitous as these sources make out. They are only attested in four cities (Alexandria, Antioch, Anazarbus and Tripolis) and do not feature at all in the papyrological record.[739] While the number of cities that had *vindices* was probably higher than this it seems that the emperors were selective with their appointment. Whether due to local advantages or specific examples of corruption, these cities were chosen to host *vindices*.

---

[736] Ὅθεν κατὰ πολὺ οἵ τε φόροι διερρύησαν τὰ ἄνθη τῶν πόλεων διέπεσεν (Evag. 3.42 [144], tr. Whitby).

[737] Malal. 16.12 [400]. Some scholars have taken this claim seriously (Claude 1969, 108-114; Kirsten 1958, 6). Most, however, believe that this simply meant that the *curiae* declined in importance after this date. See; Johnson & West 1949, 323; Laniado 2002, 36-38; Liebeschuetz 2001, 108-109.

[738] ἐκλαβὼν τοίνυν Σύρος ἀνὴρ καὶ πονηρὸς ὡς ἐπιεικὲς τοὺς φόρους, τὰ μὲν βουλευτήρια πασῶν παρέλυσε τῶν πόλεων, ἀπεμπολῶν τοὺς ὑπηκόους παντί, ὡς ἔτυχεν, εἰ μόνον αὐτῷ τὸ πλέον ὑπόσχοιτο, καὶ ἀντὶ τῶν ἀπέκαθεν στηριζόντων τὰ προστάγματα βουλευτῶν προχειρίζεται τοὺς λεγομένους βίνδικας (<οὕτως γὰρ ἔθος> Ἰταλοῖος <νεμέτορας> θεῶν ἀποκαλεῖν), οἳ παραλαβόντες τοὺς συντελεῖς οὐδὲν πολεμίων ἧσσον τὰς πόλεις διέθηκαν (Lydus, *Mag.* 3.49, tr. Bandy).

[739] *Chron. Pasch*. 626; Sev. Ant. *Ep. Sel.* 1.9 (513-518), 1.27 (513-516); Haarer 2015.

Another official whose role was expanded under Anastasius was the pagarch (πᾱγαρχος). While the term pagarch appeared occasionally in the fourth century as an alternate term for the *praepositus pagorum*, it was not until the late fifth century that an official with that name began to assume its role as the most powerful tax collection official in the provinces.[740] The pagarch was another non-curial position placed at the top of the tax collection hierarchy. Unlike the *vindex*, they were not appointed by purchasing the post, but were members of the powerful local elites who were already living in the area they were responsible for.[741]

The creation of these new non-curial posts does not mean that the liturgical system as outlined above was erased. The lower ranking positions continued unchanged and in some regions even the exactors remained as normal. Liturgical officials are repeatedly mentioned in imperial law throughout this period.[742] In fact, the last mention of curials is not until the reign of Leo VI at the end of the ninth or beginning of the tenth century.[743] What we are instead seeing is the diversification of the provinces. In some regions tax collection was overseen by a pagarch, in others by a *vindex,* and in others by an exactor.[744] The replacement of the exactor was a piecemeal process and marks the end of the comparatively uniform structure of taxation officials in the late empire. The taxation system of the sixth century was more irregular and bound to regional variations than the one that came before it. This gave it greater flexibility at the expense of decreased central control.

3. SUPPLY PREFECTS

3.1 Introduction

One of the major changes in the army of the fifth and sixth centuries is that the emperors rarely campaigned in person.[745] The more stationary nature of the emperors

[740] Liebeschuetz 1973, 38-41.
[741] Liebeschuetz 1974, 163-164; Liebeschuetz 2001, 188-189.
[742] *JNov*. 17 (535), 128 (545), 130 (545), 147 (553), 134 (556), 148 (566), 149 (569), 163 (575), *JEdict.* 13 (539); *Nov. Const*. 1.12.4 (578/582).
[743] *Nov. Const*. 2.46 (886/912).
[744] This may be suggested by *JEdict*. 13 (539), which mentions both pagarchs and *vindices* in different parts of Egypt.
[745] Whitby 2005, 368-369.

meant that the prefects became more stationary as well and could no longer leave the city to supervise major campaigns. As a result of the absence of any official of sufficient authority in the campaign region, major campaigns could be in danger of supply failures.

The empire needed a new means to deal with supply problems in the absence of the emperor and prefect. The solution eventually adopted was to create a new supply chief to handle these situations as they came up. Through a detailed examination of these officials the nature of their duties can be seen and the limitations of the existing supply system be made clear. The position changed over time and the roles are best seen through an analysis of the careers of those who held the post.

3.2 Title[746]

Despite appearing numerous times in our sources, the position of supply prefect is complicated by some terminological variation. The supply prefect is generally referred to in modern scholarship by the technical title *praefectus praetorio vacans,* which is probably best translated as acting (literally absent or unoccupied) praetorian prefect.[747] This title comes from a law in the *Justinianic Code* describing the relative status of officials given an honorary (*honoraria*) or brevet (*vacans*) position as opposed to those who had managed the position normally (*administrator*).[748] Modern scholars have connected this title with a position that appears in Greek sources starting in the beginning of the sixth century. The position is referred to as “prefect of the camp” (ἔπαρχος τοῦ στρατοπέδου) or a variation thereof.[749] This is the Greek translation of *praefectus*

[746] See list on Table 3 (page 196).

[747] Jones, *LRE* 535, 673-674. Croke 1984, 87, views the prefectural rank of the *vacantes* as a strictly honorary one granted to the regular supply officials on important campaigns, but this only makes sense for Calliopius, the supply officer he is describing. In the other cases where details are known it seems clear that the officials were appointed from outside the army.

[748] *CJ.* 12.8.2.4 (440-441). Despite the common use of this title it does not use that term directly. Instead, in its discussion of *vacantes* posts, it mentions Pentadius, who had served in place of the office of praetorian prefect (vice praetorianae praefecturae).

[749] Proc. *BV* 3.11.17. Variant forms include χορηγός τῆς τοῦ στρατοπέδου δαπάνης (Proc. *BP* 1.8.5, 2.10.2), χορηγός ἔπαρχος τῆς δαπάνης (Proc. *BV* 3.15.13, 4.16.2), ἔπαρχος τοῦ στρατοῦ (*V. Theod. Syc*. 152.53), and ὕπαρχος τοῦ στρατεύματος (Theoph. AM 5997 [146]). See Table 3 (page 196) for a complete list. The Greek word eparch was the equivalent of the Latin prefect and by this period it was used almost exclusively to refer to the praetorian prefect (Kaegi 1982, 102-103). This position proved confusing to early twentieth

castrorum, a Roman position from the early empire whose duties were to monitor guards, construct and maintain the camp, and organize the baggage train.[750] Despite certain similarities between these two positions, the supply prefects of the sixth century were far more important officials who gained their power from their connection to the praetorian prefect and not from the army.

While there is no direct imperial statement of the supply prefect's purpose as there is for the *vacantes*, their duties can be seen from their description in contemporary historians. Procopius is the most explicit about their role when he describes the prefect as "the person covering the cost of army expenses"[751] Similar statements are made in Pseudo-Joshua about how the prefect came to the region "to look after the supplies for the Roman forces."[752] Both officials are apparently civil in nature and did not have command of the army.[753]

If, as seems almost certain, these are the same position recorded in a different manner the question arises why they are treated in such a different way. The Latin title emphasizes the prefect's temporary and apparently subordinate nature while the Greek title focuses on his duties. It is worth noting that the Latin title for the supply prefects is not conclusively known. He may well have taken the name *praefectus castrorum* since the army, even in the early sixth century, was run in Latin. There is a chronological gap of some sixty years here as well between the fifth-century law and the sixth-century cases, which may have allowed a further refinement of the position and title. If the position of supply prefect gradually became more common and less of an improvised

---

century scholars. J.B. Bury considered it a mark against Pseudo-Joshua's accuracy that he recorded prefects serving in the Anastasian War who did not match the prefects of the East (Bury 1923, 470-471).

[750] Veg. *Epit. Mil*. 2.9-10. Since the army was still run in Latin during the early sixth century and Procopius feels the need to explain the title, as he did for all terms that were not strictly classical, it can be assumed that the title he used was actually a translation of the Latin one (Jones, *LRE* 989). See page 43.

[751] ὁ χορηγός τῆς τοῦ στρατοπέδου δαπάνης (Proc. *BP* 1.8.5).

[752] Ps-Josh. 54 [281].

[753] Contra Wiewiorowski 2006, 334 n. 76, who claims that the army prefect "was for sure a military commander," It is unclear how he has reached this conclusion. With the possible exception of Eutychianus, there is no evidence that any of the supply prefects were placed in charge of soldiers. He cites Jones, *LRE* 628 in support of this claim along with Kaegi 1981, 309-311, and McGeer 1991, all of whom stress the civil nature of the post. Jones, *LRE* 640, mentions the military post of prefect but this is a different position as it refers only to the commander of a legion and not an officer with broader duties.

response it may have been thought better to give them a title that did not emphasize their temporary nature, at which point they may have looked back through military manuals such as that of Vegetius, whose description of the *praefectus castrorum* (artificially separated from the *praefectus legionis*) emphasizes their duties as the officials in charge of the camp and supply line.[754]

3.3 Origin of the Position

The position of supply prefect appears to have risen out of the Vandal conquest of North Africa. The Roman expedition of 441 sent to retake Africa was a large one. It included armies from both halves of the Empire which joined up in Sicily. According to later Byzantine sources the force consisted of 1,100 transport ships to carry the men and materiel needed for the campaign.[755] Since the Western Empire had been hurt deeply by the loss of Africa (the loss of the provinces of Numidia and Mauretania Sitifensis alone had cost Rome 120,000 *solidi* per annum in tax revenue) and with large parts of Gaul and Spain under barbarian control, the task of supplying the expedition must have been the responsibility of the prefect of the East.[756] This was a problem since the current prefect, Cyrus, was not only the Eastern prefect but also the city prefect for Constantinople.[757] This additional responsibility meant that Cyrus would need to manage the supplies for the city of Constantinople, the Danubian frontier in Thrace against the Huns, the eastern provinces against the Persians, and the new Vandal campaigns in Africa. This was likely too much for a single man to oversee, and even if had not been, a supply line from the

---

[754] Veg. *Epit. Mil*. 2.9-10. See Eck 2006, for more on the replacement of the term *praefectus legionis* with the *praefectus castrorum*.

[755] Theoph. AM 5941 [101]; Nic. Call. *HE* 14.57 [578], offers the more precise number of 1,170 ships. These sources are believed to have derived their information from the historian Priscus, who is thought to have had access to archives due to his connections to high officials (Blockley 1981, 68-69). These numbers have often been rejected in modern accounts (Merrills & Miles 2010, 112, go so far as to call it a “grotesque exaggeration”). However, ninety years later the successful reconquest of Africa was achieved with a force of 500 supply vessels and an army of 15,000 men (Proc. *BV* 3.11.2-19). Since this expedition was substantially larger and drew from both halves of the empire it does not seem unreasonable to expect double the number of ships.

[756] *NVal*. 13.1-5 (445); Jones, *LRE* 208. 73,600 solidi, 9,600 *annonae*, 2,000 *capita*. Hendy 1985, 164-173, has a detailed discussion of the Roman Imperial budget. Heather 2005, 298, has calculated this as the equivalent of 40,000 infantry or 20,000 cavalry based on the numbers provided by Elton 1996, 120-125.

[757] Scharf 1991, 226-227; *PLRE* 2.336-339 (Cyrus 7).

Eastern provinces was too long to be practical. The army needed to bring its own supplies with it or its very survival would be at the mercy of the Mediterranean weather.

To handle this situation the emperor Theodosius appointed Pentadius to the position of *praefectus praetorio vacans* who was responsible for "seeing to it that the "troops had had an abundant supply of provisions on their expedition through his arrangements".[758] While unrelated events saw to it that the army returned home without ever experiencing combat, Theodosius' law makes clear that the untimely termination of the campaign was not the fault of the acting prefect who, with over a thousand ships at his command, must have had no difficulty keeping supplies flowing.[759]

There were no further recorded *vacantes* during the sixty years after Pentadius but when the Eastern Empire's frontiers came under renewed pressure the post was to reappear. Within five months of the outbreak of war with Persia Anastasius had appointed a supply prefect and sent him to Edessa to prepare supplies for the soldiers he sent after.[760] The prompt resort to such a figure suggests that there may have been other supply prefects in the intervening years whose existence has not been recorded. The Vandalic campaign of 468 is an obvious example of a campaign where a prefect would have been invaluable, but the sources are unfortunately sparse and make no mention of it.[761]

The early sixth century saw the position used frequently, with prefects recorded in three Persian campaigns and two African campaigns. Despite its frequent appearance in the sixth century it does not seem to have been a part of every army, even on major offensive campaigns. If it was, then Belisarius would have had one in Italy instead of relying on the prefects of Italy and Africa.[762] Even so, by this point it no longer has the

---

[758] "Cincti dispositionibus vice praetorianae praefecturae miles in expeditione copia commeatuum abundavit" (*CJ.* 12.8.44 [440-441]); *PLRE* 2.858 (Pentadius 2).
[759] Proc. *BV* 3.4.13. Heather 2005, 292.
[760] Ps-Josh. 54 [281].
[761] Proc *BV* 3.6.1, claims there were 100,000 men, which is certainly an exaggeration but one that emphasizes the perceived scale of the expedition. See Blockley 1981, 97, 107, 113, 124, for more on the fragmentary nature of fifth-century sources.
[762] Proc. *BG* 7.6.9; Agath. 1.18.1-2; *PLRE* 3.865-866 (Maximinus 2), 3.90 (Antiochus 2).

appearance of an entirely improvised position created to deal with emergencies, but a regular position brought into use whenever campaigns required it.

3.4 Careers

The general responsibilities of supply prefects are important but to understand more about the position and avoid generalizations it is necessary to examine the individual careers and the degree to which the status of the holders of the position varied and changed over time. Since there are records for the position over a period of more than a century and a half it is worth looking for patterns among the holders of the office to see if any broad trends can be detected with regards to the previous experience or career path of the officials involved. There are limitations to this approach of course, since there are undoubtedly many prefects whose names and careers have been lost to history, but it remains important to examine them all in order to draw at least provisional conclusions from these examples.

3.4.1 Pentadius (441)[763]

As already seen, the first known individual to take on this role was Pentadius. Unfortunately, the only surviving information about him comes from the law in the *Justinianic Code* which was referenced earlier. However, that law does allow us to make some deductions about his background. Despite the importance of their position supply prefects were not seen as possessing the same prestige as regular prefects. In the law the holders of *vacantes* positions are considered to hold a lower rank than the holders of an active position, despite both being *viri illustres*.[764] This would seem to imply that holders of the *praefectus praetorio vacans* position were viewed as being of a lower status than regular prefects. However, the law goes on to state that holders of *vacantes* posts could

[763] *PLRE* 2.858 (Pentadius 2).
[764] *CJ.* 12.8.1-34 (440-441); Groß-Albenhausen 2006b. The rankings for holders of a *vacantes* office are further subdivided based on whether they had been awarded the rank for service at a lesser post or as an entirely honorary award.

be considered to rank the same as members of the regular posts if their title had been awarded for active service.

It then goes on to cite the example of Pentadius, the official responsible for the supply of the recent Vandal expedition in the place of the praetorian prefect. The fact that there was an issue raised concerning whether he ranked as a regular prefect shows that Pentadius had not held the post of prefect prior to his service in the Vandalic campaign. If he had held the post previously then there would be no reason to question his status as an ex-prefect since he would already rank at the top of the *viri illustres* along with the rest of the former holders of that office.[765] What his position had been before this is unknown, but he must have been a lower-ranking official. Whether his previous career had been civil or military and how high an office he was serving in cannot be known, although it is possible to postulate a civil career based on the majority of later examples.

The fact that the issue of rank had not yet been raised suggests that this was a relatively new position. The wording of the law (*vice praetorianae praefecturae*) suggests an *ad hoc* position improvised to deal with the immediate crisis. It is quite possible that Pentadius was the first supply prefect. If he had predecessors there were unlikely to have been many. No emperor had gone on campaign since Theodosius, fifty years previously, and the position of supply prefect was unlikely to exist before then since the emperors would have brought their regular prefects with them. All this suggests that Pentadius was at least in the early stages of the history of the office.

This is the only reference to Pentadius, whose career comes from a poorly recorded period. Any subsequent positions or responsibilities are unknown.

3.4.2 Apion (503-504)[766]

The second man known to have been given the post was similarly new to the position of prefect. Apion was a *patricius* (now an honorary title given to the most

---

[765] Scharf 2001, 229.
[766] *PLRE* 2.111-112 (Apion 2).

important men in the state) from the family of one of the largest estates in Egypt.[767] He was described by Procopius as "a man of eminence among the patricians and extremely energetic."[768] What his qualifications were remains unknown but his access to large tracts of productive land and personal experience with the grain-supplying provinces of Egypt must have made him an attractive choice.

In 502 a Persian army invaded Mesopotamia and captured the provincial capital of Amida. In response to this disaster the emperor Anastasius decided to send a large army to defend the provinces along with a supply prefect to support them.[769] Preceding the army into the region Apion established himself at Edessa and immediately began organizing the baking of *bucellatum* out of the granaries established in the city. *Bucellatum* was imported from neighboring provinces as well and possibly from as far away as Apion's native Egypt as was the case the following year. In May of 504 Anastasius replaced Apion with Calliopius.[770] Pseudo-Joshua is completely silent about the reason for this change but other sources pick up on the hint of scandal. Apparently he had had some difficulties dealing with the military commanders, especially the commander Areobindus.[771] Certainly he should not have had difficulty supplying his forces. Areobindus spent most of the year besieged in Edessa after a humiliating defeat. Just a few months previously Apion had ordered the Edessenes to bake 630,000 *modii* (5.5 million liters) of bread and while some of the bread had been consumed by the armies there must have been plenty left.[772]

His somewhat disappointing service as supply prefect does not seem to have seriously damaged his standing among his peers. He was not recalled to Constantinople in disgrace but was first sent to Alexandria where he arranged for the shipment of more bread for the conflict.[773] He was later exiled by Anastasius for apparently unrelated

[767] Sarris 2006, 17-95; Hickey 2012, 10-12.
[768] ἀνὴρ ἐν πατρικίοις ἐπιφανής τε καὶ δραστήριος ἐς τὰ μάλιστα (Proc. *BP* 1.8.5, tr. Dewing).
[769] Greatrex 1998, 73-119.
[770] Ps-Josh. 70 [295].
[771] All the sources agree that the initial campaign was a disorderly one. See Lydus, *Mag*. 3.53.10-12; Proc. *BP* 1.8.20; Ps-Josh. 55 [282]; Theoph. AM 5997 [146].
[772] Ps-Josh. 54 [281]; Theoph. AM 5998 [148]; Proc. *BP* 1.9.1. Procopius is confused when he says that Areobindus was the one recalled since he continued to serve for the remainder of the campaign.
[773] Ps-Josh. 70 [295].

reasons, but after Anastasius' death he was recalled from exile and given the position of *praefectus praetorio per Orientem* by Anastasius' successor Justin I.[774] Justin had been an officer serving in the Persian campaign with Apion and he must not have felt he did a poor job in feeding his troops.[775]

3.4.3 Calliopius (504-506)[776]

The background of Apion's successor is entirely unclear. There are five different Caliopii listed in *PLRE* who were operating in the Levant during the late fifth or early sixth centuries. The Calliopius who served as supply prefect was from Beroea (Aleppo) and had been serving in Areobindus' army in an unknown capacity prior to his appointment.[777] There was also a Calliopius serving as *comes Orientis* in 494, one who was the son of the *vir gloriosissimus* Hierius with a house in Antioch, one who served as *vicarius* of the *magister militum per Orientem* in either 513 or 518, and one who was acting as the provincial governor's deputy.[778]

While it seems probable that some of these officials are in fact the same person they cannot all be the same man. Calliopius the *comes Orientis* was appointed by his kinsman (συγγενής) Hierius, the Prefect of the East.[779] This is almost certainly the same Hierius as the one mentioned in one of Justinian's *Novels* as a participant in a protracted land dispute. The Hierius from the *Novel* had estates in Antioch and Constantinople and was *vir gloriosissimus*, implying that he had held one of the major magistracies. He was also the father of a son named Calliopius, but this cannot be the kinsman who was made *comes Orientis* because he is only recorded as *vir clarissimus*, the lowest rank on the

---

[774] Marc. com. s.a. 510.3. Croke 1995, 114, suggests that his banishment may have been a result of a conspiracy against Anastasius.
[775] Proc. *BP* 1.8.3-5; Ps-Zach. *HE* 7.4g [30]; Theoph. AM. 5997 [146], 6011 [166].
[776] *PLRE* 2.252 (Calliopius 5).
[777] Ps-Josh. 55 [282]; Scharf 2001, 229.
[778] *PLRE* 2.251-253: Calliopius 3 (the *comes Orientis*), Calliopius 4 (the son of Hierius), Calliopius 5 (the supply prefect), Calliopius 6 (the *patricius* and *vicarius* for the *magister militum*), Calliopius 7 (*loci servator*). Calliopius 3 is often associated with Calliopius 5. Trombley & Watt 2000, 68 n. 422, regards it as a possibility. Kaegi 1982, 104-105, and Downey 1939, 14, treat it as certain. Some authors have gone as far as consolidating all the five Calliopii active at this time into one person. See Croke 1984, 86-88.
[779] Malal. 16.2 [392-393]; *PLRE* 2.558 (Hierius 6).

senatorial scale, when a former *comes* should be at least *vir magnificentissimus*. This means that at least two of the Syrian Calliopii came from the same family, a family that favored recurring dynastic names since Hierius' grandson was also named Hierius.[780]

All of these officials except for Calliopius the supply prefect are connected specifically with the city of Antioch. This might be seen as weakening any potential connections between these figures. However, Calliopius the *vicarius* had a nephew who was the bishop of Beroea, which shows that his family had connections in that city.[781] It is reasonable to assume that Calliopius, the supply prefect from Beroea, was a member of this same family. While that does not clarify whether this Calliopius was indeed the *comes Orientis* or the *vicarius* of the *magister militum* it does reveal something about his family connections. He came from an influential Syrian family with strong ties to the region and previous service in high office. What is more, while Calliopius may have been serving in a military post prior to becoming prefect he had family who had served as regular prefects before.

From the timing of the magistracies alone Calliopius could plausibly have been both the *comes Orientis* and *vicarius* of the *magister militum*. The *comes Orientis* named Calliopius was serving in 494. This would place his time of birth sometime in the 460s, making him around forty at the time of the Anastasian War. Similarly the *vicarius* of the *magister militum* first appears immediately after the war and serves in a military post until at least 518. If these are all the same official then he would have been in his fifties or sixties by then, which is in keeping with his having an adult son in 516.[782] It seems more likely that all three officials were a single person than that they were two relatives of the same age whose dates of activity never coincide.

A broad outline of his career can be provided accepting this assumption. Calliopius' early civil career was not impressive. As *comes Orientis* he was nearly killed by a riot and immediately replaced by the emperor. It is easy to suspect that Calliopius had simply taken advantage of the opportunity afforded by having his relative Hierius

[780] *JNov.* 159 Pref.; *PLRE* 2.558-559 (Hierius 7).
[781] *PLRE* 2.107 (Antoninus 1).
[782] Malal. 16.15 [401]; Theoph. AM 6009 [162-163]; *PLRE* 2.1102 (Theodosius 18).

appointed prefect to gain a position he was either unsuited or unready for.[783] Perhaps this accounts for his transfer to a military career.

After the conflicts between Apion and the military commanders it looks like Anastasius was trying to establish a clear command structure. He sent an official, Celer, to Mesopotamia to assume supreme command and chose a supply officer who had proven he could serve under military leaders without qualms. The fact that Calliopius had earlier served in an important civil post goes a long way towards explaining why he was chosen for the position. The normally strict division between civil and military hierarchies could be ignored in the interests of a successful campaign. As with the previous holder of the position Calliopius was familiar with regions that were vital to the supply of the army. He came from Beroea in Syria II, which was only about eighty kilometers from Antioch and less than 200 from Edessa.[784] This familiarity with the region would have been of great use to a supply officer and was undoubtedly influential in his selection.

As Apion had, Calliopius based himself at Edessa, although he is attested at Hierapolis as well.[785] His length of service is slightly unclear. It seems most likely on practical grounds that he would continue to serve as prefect for as long as the extra armies remained in the region. However, it is possible that he was no longer holding the office after the truce was agreed. After this point Pseudo-Joshua never refers to Calliopius by his title, even when he refers to Celer as *magistros*.[786] After the campaign finished he was made *patricius* and given responsibility for the fortification of Dara.[787] His service as supply prefect would certainly explain why a mid-ranking military officer

---

[783] Malal. 16.2 [392-393].
[784] Trombley & Watt 2000, 88 n. 422.
[785] Ps-Josh. 70 [295], 77 [300], 87 [307].
[786] Ps-Josh. 99 [315]. Croke 1984, 87 views Calliopius' retirement to Hierapolis as proof that he was no longer serving as prefect in 505 and could now leave the army, but this ignores the fact that the armies were intentionally stationed behind Edessa to ease the strain on the city. He cannot have been as free from duty as Croke implies since these officials are only mentioned because they came to winter in those cities with their soldiers. Calliopius was therefore serving the army in some capacity (whether as prefect or not) when he wintered in Hierapolis.
[787] Marc. com. s.a. 518. *PLRE* 2.252 (Calliopius 6), states that this Calliopius was a native of Antioch based on Marc. com. s.a. 518, which identifies him as a *patricius* of Antioch, and Malal. 16.15 [401], which identifies his son Theodosius as a native of that city. This certainly proves his career was based around Antioch, but if he was living in Antioch and came from a family with strong ties to the city then there is no reason he had to be born there.

was given a construction task of such importance. His military career was to continue for at least twelve years after the war, at which point he would have been in his late fifties or sixties.

3.4.4 Demosthenes (531-532)[788]

On April 19, 531 Belisarius, the *magister militum per Orientem*, encountered a Persian army at Callinicum. The battle was a costly one for both sides but the Persian force was able to drive the Romans across the Euphrates and claim the victory. While the Roman force was demoralized and in disarray the Persians were not able to press their advantage due to the heavy casualties suffered and instead withdrew back into their own territory. Despite the satisfactory result of a Persian withdrawal Justinian called for an inquiry and removed Belisarius from his command.[789]

In the confusion following the defeat Justinian sent several officials into the region to stabilize it against future attacks. Among other officers he sent Sittas, Constantiolus, and Belisarius' successor Mundus, to try and restore order.[790] In addition to these military officers came an official called Demosthenes, who arrived in Antioch within two months of the battle. His arrival was noted by the contemporary author of the *Chronicle of Edessa*, who erroneously reports that he was placed in command of the Roman forces.[791] John Malalas is more informative about his purpose when he explains that "Demosthenes was sent to the East, conveying a considerable sum of money to prepare granaries in each city because of the war with Persia."[792]

---

[788] *PLRE* 2.353-354 (Demosthenes 4).
[789] Procopius' account of the battle and its aftermath is the most thorough though it does not mention Belisarius' inquiry (Proc. *BP* 1.18.13-56) and instead implies that he had returned merely so that he might conduct the Vandalic campaign (1.21.2). The inquiry and dismissal of Belisarius are recorded in Malal. 18.60 [463]-61 [466] and Ps-Zach. *HE* 9.6b [97]. For more on the battle see Greatrex 1998, 193-212.
[790] Malal. 60 [465]-61 [466]; *PLRE* 3.352-353 (Constantiolus), 3.903-905 (Mundus), 3.1160-1163 (Sittas 1).
[791] *Chron. Edess*. 100 [38].
[792] κατεπέμφθη εἰς τὰ ἀνατολικὰ Δημοσθένης, ἐπιφερόμενος καὶ χρήματα οὐκ ὀλίγα εἰς τὸ εὐτρεπίσαι κατὰ πόλιν ἀπόθετα σίτου ἕνεκεν τῆς μετὰ Περσῶν συμβολῆς (Malal. 18.63 [467], tr. Jeffries et al.).

Both of these sources are silent as to his exact title but from the description of his duties it is seems almost certain that he was a supply prefect. Demosthenes had served as Prefect of the East from 521 to 522, and again briefly in 529, which means that not only was he qualified for the position but it would have been insulting for him to have served in any lower office.[793] The clearly military-centered nature of his duties and the strong association with the army as recorded in the *Chronicle of Edessa* further strengthen this conclusion.

His posting was to be a short one as he died after half a year in office. However he appears to have moved about a great deal during that time ensuring that the cities of Osrhoene and Mesopotamia were fully stocked to handle the anticipated invasion. In July he left Antioch and travelled northeast to Edessa, the provincial capital of Osrhoene and chief city in the supply line during the Anastasian War. By the winter he was in the former headquarters of the *dux Mesopotamiae* at Tella-Constantina, where he died on January 10 of an illness supposedly brought about through the stress of dealing with a Hunnic invasion.[794] His efforts proved unnecessary in the end since the Persian king Kavad had died and been replaced by his son Khusrau who wanted peace to secure his reign, but his presence shows the government's investment in securing cities in preparation for the engagement.

Justinian's appointment of Demosthenes represents a change in the pattern recorded so far. Rather than promoting other officials to serve in the post he preferred using former prefects for the job. There are four supply prefects recorded during his reign and the two whose careers are known had both served as regular prefects prior to their service as *vacantes*. Justinian seems to have been especially careful to avoid using officers who might jeopardize the campaign through their inexperience in raising supplies. While Apion's tenure had not been disastrous it was perhaps thought better to avoid the danger altogether.

---

[793] *PLRE* 2.354 (Demosthenes 4).
[794] *Chron. Edess*. 101 [38].

3.4.5 Archelaus (533-534)[795]

Justinian was similarly careful about his choice of supply officer for Belisarius' Vandal campaign of 533, again choosing a former prefect for the role. Archelaus had previously served as prefect of the East from 524-527 and as prefect of Illyria at some point before that.[796] Like Apion before him he was a *patricius* and therefore an important official.

Unlike previous (and subsequent) *vacantes* Archelaus benefits from the detailed testimony of a contemporary who knew him personally. He served on Justinian's Vandal campaign along with general Belisarius' then secretary (and future historian) Procopius. While not the main focus of his work, Archelaus is mentioned on several occasions as a member of the command staff. Procopius' introduction of Archelaus contains what is probably the best description of a supply prefect's purpose saying that this official is "the person covering the costs of army expenses".[797] The wording of this introduction may suggest that supply prefects were standard positions in Roman armies by this point, at least for major expeditions.

The main force of the army set sail from Constantinople on June 21, 533, taking most of their supplies with them. The prefect of the East, John the Cappadocian, had been responsible for the baking of *bucellatum* for the expedition, a fact which is known because Procopius derided him for the inferior quality of the bread, which went moldy and caused 500 soldiers to die of dysentery before they even reached Africa.[798] In other words, in the first stages of the campaign Archelaus was only responsible for the more minor role of storage and distribution of supplies rather than the raising of them.

As a figure in Procopius' history Archelaus is treated in a greater degree of detail than any other supply prefect except perhaps Apion. Procopius even provides him with a speech, in full classicizing style, during the debate over what approach to take once they

---

[795] *PLRE* 2.133-134 (Archelaus 5). Possibly identical to the official (*PLRE* 3.32 [Aiditqlios]) who Michael the Syrian records as disbursing alms to the populace before leaving for war (Mich. Syr. 9.22 [285]).
[796] Proc. *BV* 3.11.17.
[797] οὕτω γὰρ ὁ τῆς δαπάνης χορηγὸς ὀνομάζεται (Proc. *BV* 3.11.17.).
[798] Proc. *BV* 3.13.12-20.

reach Africa. As with all such speeches in classicizing histories, the accuracy and even existence of the speech can be questioned, but it does at least provide us with the testimony of a witness about the concerns raised by a supply prefect.[799] Procopius was present at the debate he records and his version of Archelaus' priorities is at least plausible, which may be the best that can be hoped for from such an account.

Archelaus' concerns, according to Procopius, are primarily focused on supply and security, as might be expected from his position. He advises that the fleet be harbored in Stagnum, where the ships and supplies could be safe in the event of a sudden storm, and that an assault on the nearby capital of Carthage be undertaken immediately. Once they had control of the city (which he claims was the only one in Africa that still had walls remaining) they would be protected from further attacks. If they disembark elsewhere then they would be trapped in the open and have nowhere to store their arms and supplies when under attack. Speaking explicitly as the army's supply officer he states that he cannot guarantee a supply of provisions if the ships are lost through lack of a secure harbor and he seems knowledgeable about the nature of the terrain and absence of drinkable water along their route.[800]

None of this is particularly surprising for a supply prefect but it does emphasize their limited military experience and priorities, the deficiencies of which Belisarius is quick to point out in his return speech. Belisarius' rebuttal is focused on troop morale and the greater danger of losing the navy, whether to storm or battle, with the army still onboard.[801] As he puts it, in suitably heroic style, "if we show ourselves brave men, we shall lack nothing in the way of provisions".[802] Archelaus' preoccupation with ensuring the safety of the fleet and supplies blinds him to the greater military priorities of protecting the army and maximizing the chances for a successful battle.

For the rest of the initial campaign Archelaus remained with the fleet. The army must have taken some of the supplies with them when they disembarked although they

---

[799] Potter 1999, 130-138. As assumed in Cameron 1985, 148-149; Kaldellis 2004, 29-32.
[800] Proc. *BV* 3.15.2-17.
[801] Proc. *BV* 3.15.18-30.
[802] ἐπιλείψει δὲ ἡμᾶς ἄνδρας ἀγαθοὺς γινομένους τῶν ἐπιτηδείων οὐδεν (Proc. *BV* 3.15.30, tr. Dewing).

would have been able to resupply from the fleet from time to time. Unfortunately, the terrain meant that the army had to move inland and separate from the fleet. Belisarius gave strict orders to Archelaus and Calonymus, the admiral of the fleet instructing them not to harbor at Stagnum but to remain at least 200 stades (37 km) from Carthage.[803] Belisarius' campaign was phenomenally successful and he quickly defeated the Vandal army at Ad Decimum making many of their concerns irrelevant. When the fleet heard of this success the sailors quickly anchored in the harbor at Stagnum, against the direct instructions of Archelaus who tried to be loyal to Belisarius' command.[804]

This is the last mention of him to appear in Procopius so his duties during the rest of the war are uncertain. He may have set up base in Carthage, as he had earlier advised, and seen to the supply of the army from there. The Vandals must have prepared supplies for their army which would have given him a good deal more grain to bake for the army. On April 13 the following year Justinian appointed Archelaus the first *praefectus praetorio Africae* and placed in charge of the new prefecture of Africa.[805] This can be presumed to mark the end of his service as supply prefect. He was not to remain in his new position for long. Before the end of the year he had been replaced by the *magister militum* Solomon, who now held both supreme military and civil authority in Africa.[806] This term of office may seem quite brief given his apparently competent handling of his duties, but short terms of office were more normal than long ones. It was Solomon's continued dominance of the position for the next decade that was exceptional.

In general Archelaus seems to have not been particularly vital to the conflict. The supplies were prepared before the army left Constantinople (although Archelaus may well have had to raise new supplies in Methone when the bread provided them went bad) and he was out of contact with the army for the main part of the campaign. Even if he had been in contact there is little he could have done that could not also have been done by a military requisition officer. In an emergency Archelaus could have gone back to Roman territory to raise more supplies but it was doubtful whether he could raise them fast

[803] Proc. *BV* 3.17.16.
[804] Proc. *BV* 3.20.11.
[805] *CJ* 1.27.1 (534).
[806] *JNov.* 36 (535) and 37 (535); *PLRE* 3.1167-1177 (Solomon 1).

enough to be of use to the army. Supplies raised locally would have been taken through plunder. His main value came once the region had been pacified at which point he could handle the raising of supplies through the newly reestablished administration.

3.4.6 Symmachus (536-539)[807]

Nothing is recorded about Symmachus, who was sent with Germanus' 536 expedition to deal with the troops who revolted in Africa, except that he was a senator (ἀνήρ ἐκ βουλῆς), which at this time meant he had served as a fairly high-ranking official.[808] He served as supply prefect for the next three years until he was recalled along with Germanus in 539.[809] His term of service is the longest recorded for any supply prefect. The slightly unusual length of his service is probably due to the length of the campaign. Only Apion was replaced before his campaign was over and the others appear to have served for the duration. Symmachus was also probably serving as prefect of Africa since the previous prefect and *magister militum* Solomon had been recalled to Constantinople.[810] Procopius describes him as ὁ ἔπαρχος καὶ χορηγός τῆς δαπάνης, the natural reading of which would seem to be prefect *and* supply prefect.[811]

3.4.7 Tatianus (fl. 540)[812]

Tatianus was an official stationed in Antioch overseeing the supply of the soldiers before Khusrau's siege of the city in June 540.[813] Although the *PLRE* considers him an *actuarius* or *optio* the responsibility seems far too large for such an official.[814] Procopius referred to him as "the person covering the cost of army expenses" (ὁ χορηγός τῆς τοῦ στρατοπέδου δαπάνης), which is the same expression he used to refer to Apion earlier in

[807] *PLRE* 3.1213 (Symmachus 2).
[808] Proc. *BV* 4.16.2. Kazhdan 1991a.
[809] Proc. *BV* 4.19.1; Ps-Zach. *HE* 9.17c [132]. He was also mentioned in Theoph. AM 6026 [204-205].
[810] *PLRE* 3.1167-1177 (Solomon 1).
[811] Proc. *BV* 4.16.2.
[812] *PLRE* 3.1219 (Tatianus 1).
[813] Malal. 18.87 [479-480].
[814] *PLRE* 3.1219 (Tatianus 1).

his *History*. What is more he seems to be familiar with him and praises him as “an especially discreet person.”[815] This makes it far more likely that he was a supply prefect sent out to support Germanus’ army during the coming war.[816]

Tatianus is only mentioned in a passing reference to a bad omen witnessed shortly before the sack of Antioch. The standards of the soldiers stationed in Antioch turned, of their own accord, to face the east before returning to their original positions, thus indicating that the mastery of the city would pass from west to east. The soldiers showed it to everyone who was nearby, including Tatianus who was apparently in the camp at the time.[817] It does not make clear whether he was stationed in the camp permanently but it seems reasonable to suppose that an official in charge of army supply would be stationed near the soldiers.

Procopius’ account of the Roman army during the Persian invasion is surprisingly vague, but it is known that Justinian sent his cousin Germanus to assume command in the region.[818] Germanus spent some time organizing the defenses in Antioch before leaving to join up with the army.[819] Tatianus may have come with him at this time. Tatianus’ career is uncertain but his appearance emphasizes just how common the role had become by the mid-sixth century. There are no known prefects by the name of Tatianus since the fourth century, although given the gaps in the record this does not prove that he had not held the post before.[820]

---

[815] Proc. *BP* 1.8.5, 2.10.2.
[816] Scharf 2001, 232.
[817] Proc. *BP* 2.10.1-3.
[818] Proc. *BP* 2.5-13.
[819] Proc. *BP* 2.6.9-16. Malal. 18.87 [480], was less impressed with Germanus who he said “achieving nothing, […] stayed in Antioch buying silver for two or three *nomismata* a *litra* from the Antiochenes.”
[820] *PLRE* 1.876-878 (Tatianus 5). He does not appear to have had any connection with the consular family from Lydia (Scharf 1991, 230).

3.4.8 Gregory (577-???)[821]

In 577 the Roman general Justinian was defeated in Armenia by the force of the Persian *marzban* Tamkhusrau.[822] This was the latest in a series of indecisive campaigns in the region and the emperor Tiberius decided that the region was disordered enough to need assistance. For that reason he sent in the praetorian prefect Gregory to oversee the recovery of the army in Armenia in preparation for *comes* Maurice's arrival in 577.[823]

Gregory is quite clearly labelled as a prefect and his responsibilities are described in such a way as to make clear that he was a supply prefect. Gregory only appears in one chapter in the *Ecclesiastical History* of John of Ephesus. The section is short enough to be quoted in full:

> Having therefore summoned [Maurice *comes*], he gave him orders to proceed to the East as commander-in-chief of all the forces there, with authority to govern and direct and control all the generals and officers of the whole army, and that no one should venture, on any pretext, to disobey his orders and the word of his mouth. And further, he gave him power to appoint and to dismiss any officer from service at his sole discretion; and sent with him many talents to provision the troops, having also just previously commissioned Gregory the praetorian prefect (a man who had distinguished himself in all the affairs of Armenia) to proceed there to administer and take charge of the sums of money disbursed for the army.[824]

His previous service in the region remains unclear, though given that he was chosen because of his familiarity with the region it would be a bit of a coincidence if he had served as a regular prefect as well.

---

[821] *PLRE* 3.549 (Gregorius 4).
[822] Theoph. Simok. 3.15.8-9. For a detailed discussion of this campaigning season (which does not generally seem to have been disastrous) see Whitby 1988, 262-268.
[823] Joh. Eph. *HE* 3.6.14 [309]; Kaegi 1982, 106.
[824] Joh. Eph. *HE* 3.6.14 [309-310]. John was often vague on matters of military detail, but he was living in Constantinople at this time and had access to detailed information (van Ginkel 1995, 71-79).

Gregory was sent to repair and resupply just like Demosthenes had done for Mesopotamia in 531. Unlike Demosthenes his appointment was connected to a change in military leadership. *Comes* Maurice is the future emperor of that name but at the time he was only a favorite of Tiberius II on his first military command.[825] His imperial connections may explain why he was given such complete authority over a warzone, including the ability to dismiss any officials he saw fit. This would seem to include Gregory which would place him directly under the control of a military official.

This is all that is known of Gregory's service. It seems plausible that he served as supply prefect for the rest of Maurice's campaigns but there is no reason he could not have returned to Constantinople once the situation had stabilized.

3.4.9 Eutychianus (fl. 610)[826]

The last official to be recorded in the position was Eutychianus in 610/611. Eutychianus was serving at Ancyra during the revolt of Commentiolus, brother of the recently executed emperor Phocas.[827] The sources for this incident are particularly poor, even by the standards of the seventh century, appearing only in the *Life of Theodore of Sykeon*.[828] Hagiographies are notoriously unreliable as sources for historical events but this Life is generally regarded as accurate since it was written by one of Theodore's disciples not long after 641.[829] While it might exaggerate events to the benefit of its subject it can be expected to record circumstantial details and incidents fairly accurately since the author lived through many of these events himself. None of this changes the fact that the *Life* is immensely vague in key details.

---

[825] Whitby 1988, 268-275.
[826] *PLRE* 3.476 (Eutychianus 5).
[827] *V. Theod. Syc.* 152. For more information on the rebellion see Kaegi 2003, 53-54.
[828] Kaegi 1979, 222-224. There is an indirect reference to civil conflict in the letter to Khusrau preserved in the *Chronicon Paschale* (AD 615 [708]) but it is quite vague.
[829] The author claims to have been one of his disciples, a fact which is generally accepted by historians (See Baker 1976, 83-96; Kaegi 2003, 76; Mitchell 1993, 122-123). It is clear that it was finished after 641 since the *Life* has Theodore predicting a thirty-year reign for Heraclius, although at least one author (Baker 1976, 90-91) believes that the *Life* was actually begun towards the end of Theodore's life.

According to the *Life*, "Eutychianus, the *vir glorioisissimus* and prefect of the army, along with the other officers, sent from Ancyra a letter to the servant of God (Theodore)."[830] The only armies mentioned in this chapter are the forces of Comentiolus which should imply that Eutychianus was serving under him and was wintering with the rebel army in Ancyra. The content of the letter makes it clear however, that he is opposed to Commentiolus since he and other officers ask St. Theodore to pray for "God to dissolve the tyranny which threatens our lives."[831] Although this is a vague statement that could equally be taken to refer to Heraclius' new regime, Theodore assumes that they are referring to Commentiolus as the tyrant and assures them that matters will resolve themselves in a satisfactory way.

Other writers have taken this to mean that Eutychianus was the commander of an army sent by Heraclius to besiege the rebels in Ancyra.[832] There are two problems with this thesis however. First, there is no mention made of a siege or indeed any armed forces or military commanders in the area except for Philippicus, who had been sent to Commentiolus as an envoy. In fact, ignoring the mention of Eutychianus as eparch of the army, the entire account seems to be one of attempted negotiation between a usurper (Heraclius) and a member of the old regime.[833] In the end there was no need for armies or battles since Commentiolus was simply assassinated by one of his own men, who then turned Ancyra over to Heraclius.

Second, Eutychianus is quite clearly listed as being a supply prefect (ὁ ἐπάρχων τοῦ στρατοῦ) and not a military commander. It might be argued that the participle ἐπάρχων is being used in its broadest possible sense to mean 'the man commanding the army', but this would make it unique for the sixth and seventh century. All other sixth

830 Εὐτυχιανὸς δὲ ὁ ἐνδοξότατος ἀνὴρ ἐπάρχων τοῦ στρατοῦ μετὰ καὶ ἄλλων ἀπχόντων ἀπέστειλαν ἀπὸ Ἀγκυρῶν ἐπιστολὴν πρὸς τὸν Θεράποντα τοῦ Θεοῦ (*V. Theod. Syc*. 152.53-55).
831 ἵνα διασκεδάσῃ ὁ Θεὸς τὴν μελετωμένην τῶν ψυχῶν τυραννίδα (*V. Theod. Syc.* 152.56-57).
832 Kaegi 2003, 54. *PLRE* 3.476 (Eutychianus 5), simply states that he was the commander of an army at Ancyra, leaving aside the question of sides, while the French translation of this Life interprets this term as "l'illustrissime commandant de l'armée" (Festugière 1970, 53). Kaegi's initial article (Kaegi 1973, 316 especially n. 20) assumed that Eutychianus was a military official stationed nearby who avoided joining Commentiolus' rebellion. The suggestion that he was in charge of a Heraclian relief force first appears in his biographical monograph.
833 In fact, an in-depth study of the work describes the events here as, "the appearance of ambassadors attempting to defuse the otherwise unattested revolt" (Mitchell 1993, 123).

and seventh century uses of the participle ἐπάρχων in *TLG* use it in reference to civil authority, and almost always use it to refer to the authority of the *praefectus praetorio*.[834] Of particular importance here is the fact that Eutychianus is recorded as being *vir gloriosissimus* (ἐνδοξότατος ἀνὴρ), a rank only accorded to senators on the highest level of their career.[835] Prefects were granted it automatically, but not lower ranking officials such as the *vicarius Ponticae* which the *PLRE* suggests for his position.[836]

There is simply not enough evidence to be clear on what precisely the situation actually was. If Eutychianus was sent with a Heraclian army then he could not have been in command of it.[837] More likely he was simply the highest ranking official involved in the plea to St. Theodore so no mention of his commander was felt necessary as it would detract from the prestige of the appeal.

Alternatively, there might never have been a Heraclian army. The timescale in the *Life* is very vague and Commentiolus' rebellion may have lasted only a couple of months. If it was only a brief rebellion then Heraclius would not have had time to sort out affairs in the capital and divert an army to Ancyra, particularly if he still had hopes of resolving the matter by negotiation. In this case Eutychianus would have to have been an official serving with Commentiolus' army. The fact that Commentiolus was assassinated shows that he had opponents within his ranks and Eutychianus may have been one of these. If he had been stationed in Ancyra when Commentiolus appeared with his forces he may well have had a reason to be in conflict with his new commander. The threatened execution of the envoy Philippicus must have seemed the act of a tyrant and may have been what

[834] The only author in the seventh century who used the term ἐπάρχων to refer to a military commander was John of Antioch and it appeared in the section of his chronicle that dealt with the revolt of Maximinus Thrax in the third century, a time when the prefect still had military duties (Joh. Ant. Fr. 220.47, 224.125). There was a military position called the prefect of a legion, but it referred to a smaller command and appears to have fallen out of use before this time (Jones, *LRE* 640).
[835] *PLRE* 3.476 (Eutychianus 5) views this rank as technically inaccurate due to the insertion of ἀνὴρ after ἐνδοξότατος (apparently in imitation of the Latin practice) but it is not readily apparent why this should be a problem. Given the position that the author claims for him he should have been granted that rank by right.
[836] *PLRE* 3.476 (Eutychianus 5).
[837] There was an official called the *quaestor exercitus* in the eastern Danubian provinces who was often called an eparch and yet on occasion commanded troops, but this was an extraordinary command in a militarized zone. Two factors argue against Eutychianus being a quaestor. First, there are no known quaestors after 580 so the position seems to have been phased out. Second, he was operating well outside the *quaestura*. See pages 201-205.

prompted the letter.[838] On the other hand, if he had been with Commentiolus from the beginning it might explain aspects of his career.

Whatever his allegiance his location is somewhat confusing. As a supply prefect he should be serving near a battlefront, which at this point would have been in northern Syria 600 kilometers to the south-east.[839] This was more than three times further from the front line than Apion had been, and through far less favorable terrain. The army there could certainly have used help since Antioch and Caesarea were to fall the following year.[840] If he was serving as Commentiolus' supply prefect then he could initially have been stationed very close to the front lines. The *Life* states that Commentiolus brought his army west to Ancyra which means he certainly came from the direction of the Persian front.[841] This would make the appearance of a supply prefect at Ancyra explicable since he would have been dragged west with Commentiolus in response to Heraclius' uprising.

This is all speculative of course. All that is known for certain is that there was a man serving at or near Ancyra in 610/611 who had the same title as previous supply prefects. The position lasted into the early seventh century apparently performing the same basic function that it had at its inception. By the late sixth century the appointment of acting supply prefects must have been a relatively common event.

3.5 Eparchs of the Themes

It has been speculated that the supply prefects became the ἔπαρχοι τῶν θεμάτων of the eight and early ninth century Byzantine Themes.[842] These eparchs of the Themes were relatively minor positions that served as supply officers for the Theme, a

---

[838] *PLRE* 3.476 (Eutychianus 5), The *Life* is not perfect on details such as this since it says that Philippicus was executed when he was a commander in the Persian War following the revolt. See *PLRE* 3.1022-1026 (Philippicus 3).

[839] Ancyra was a major base for eastern campaigns later in the seventh century, but with Caesarea and Antioch still under Roman control it seems premature for Ancyra to have assumed this role by 610.

[840] Agapius 2 [190]; Chron. 1234, 23; Mich. Syr. 10.25 [391]; Theoph. AM 6102 [299]. Whittow 1996, 75. Sebeos 33 [111], offers a very confused chronology that sees Antioch fall in 606. The chronology is very difficult here. See Chaumont 2011, and Kaegi 2003, 76-77, who believes that Antioch fell in 613.

[841] Kaegi 2003, 48, 53, suggests that Commentiolus replaced his nephew Domentziolus as *magister militum per Orientem* at some point after the defeat in 607 based on the information from this hagiography.

[842] Kaegi 1982, 98-113.

military/political unit similar to the diocese but with a more basic and decentralized military function. These eparchs served under *strategoi*, the military governors of the Themes. Their main duties were army supply and provisioning.[843] If this was the position the prefect later developed into then it seems worthwhile to see if there is any evidence for developments in that direction prior to the late seventh century.

To evaluate the potential relationship between the two positions it is important to understand the prefects of the Themes. These officials are poorly recorded since they were being phased out by the mid-ninth century, which was when secular historical sources were just beginning to increase in number. This means that the duties and responsibilities of the eparchs are not well understood. However, there do appear to be three main factors which distinguish them from supply prefects. First, they were permanent positions.[844] Secondly, their power was defined by their Theme and they therefore had a geographical remit.[845] And thirdly, they seem to have held some form of governing function beyond simply the right to demand *munera* from citizens.[846]

The second difference can be fairly easily dismissed since the prefect could not have become attached to a Theme before the seventh century when the Themes were first formed.[847] It would, however, follow naturally if it were shown that the first difference was removed. The Themes developed out of the military units of the Empire. The generally accepted explanation is that the various armies were separated during the seventh century as the provincial system broke down. With civil authority questionable the army assumed the duties of government with the *magistri militum* and other

[843] Kaegi 1981, 309-311. The evidence for the eparchs of the Themes is quite sparse and these conclusions are reached based on the duties of the officials known as *protonotarii* who replaced them.
[844] Haldon 1990, 201-202. This can be shown by the fact that they held an official place in the hierarchy of the Themes until replaced by the *protonotarii*.
[845] Haldon 1990, 201-203.
[846] Haldon 1990, 203-204. Kaegi 1982, 99-103, questions their role in the civil government but does so on purely technical grounds based on the meaning of the word eparch. This argument only carries weight if the eparch's powers remained the same, which would seem more unlikely if the *strategos*' powers had not been radically altered at the same time. Certainly, he does not deny that the *protonotarii* who replaced them were the heads of the civil administration in the Themes (Kaegi 1981, 311 n. 28).
[847] Louth 2008, 239-241. The related position of *quaestor exercitus* did hold a geographically defined area of operation, but they appear to have been phased out by Maurice and were certainly disbanded by the early seventh century.

commanders becoming the *strategoi* in charge of the Themes.[848] The organizational backbone of the Themes thus came out of the army units they derived from. If the supply prefect was a permanent post serving under the generals of the armies then it would naturally have assumed a role in the Theme as well. This may account for the third difference as the prefect could easily have accumulated civil powers the same way the generals did, or the position could have amalgamated the prefects and the provincial governors as has been suggested by Haldon.[849]

The difficulty is that there is very little evidence for supply prefects becoming a permanent position in all armies. Eutychianus was serving as prefect in 610, perhaps forty or so years before the creation of the Thematic system.[850] If the eparchs did develop out of the supply prefects then he might be expected to show signs of it, but his career is the most poorly recorded of all prefects. The most interesting fact is that he was centered in Ancyra. While an important city in late Roman times Ancyrca was only to develop into real importance as the capital of the Opsikion theme, the oldest and most powerful of the themes. The name itself comes from the Latin word *obsequium*, which was now being used in place of the former term praesental to describe the army under the personal command of the emperor. Opsikion was first formed in the mid-seventh century around this army, then stationed in Ancyra, since it was one of the few units far enough away from the frontiers to be safe from invasion.[851]

Does this mean that the position of Ancyra as a supply depot along with an eparch in place to control supplies was in place already by the time of Heraclius? It does not seem likely. While identifying the location of individual army units in the seventh century is often impossible it does not seem that there were a substantial number of praesental armies stationed in northern Anatolia at this time. The main front was then in Syria and the Persians were making significant breakthroughs so any units stationed in

[848] Haldon 1984, 142-190.
[849] Haldon 1990, 203.
[850] Kazhdan 1991b. The dating of the first Themes remains a controversial debate in modern scholarship. Earlier works placed the creation of the Themes in the reign of Heraclius (Ostrogorsky 1969, 90), but the modern consensus generally dates them later. At any rate they were certainly present by 687. See Haldon 1990, 208-220.
[851] Foss 1991; Haldon 1984, 164-182.

central Asia Minor would have been a waste. More plausibly he may have been with Commentiolus' army which was either pulled back from the eastern front to confront Heraclius, or on its way there when he arrived. Even if there had been an army stationed in Ancyra the later Persian raids through Anatolia would have dislocated them anyway.[852] There is every reason to assume that western Anatolia was denuded of troops by the time the Persian forces joined the Avars in their siege of Constantinople, with the majority of Roman soldiers being either in the city or Heraclius' field army.[853]

If Eutychianus was serving in the role that later became the eparch of the Theme then there were many changes to the position between him and his eventual successor. Eutychianus was a high-ranking member of the senatorial aristocracy serving in what may still be a temporary position to deal with the current emergency. The fact that the emergency situation lasted several decades should not take away from that fact. The collapse of the senatorial rankings and the decentralization of the government meant that future eparchs were not so well connected.[854]

Gregory comes closer to the position of thematic eparch. He was only responsible for the army in what would later become the Armeniakōn Theme and he appears to have been placed under the command of *comes* Maurice, who was given the power to dismiss any official he deemed necessary.[855] He was appointed in 578 after having served in the region before in an unspecified capacity. If there was a permanent prefect in charge of supplies for the Armenian army he may even have been returning to the same command.

This evidence is all vague but is important to recognize that we are likely only aware of a fraction of the supply prefects appointed. The earlier examples of Apion and Calliopius were emphasized because of their novelty in the previously peaceful east. The forty years following them are well recorded by writers such as Procopius, who is our sole source for a third of these officials. This period contained six of the nine known prefects and shines a brief light on the running of the Roman army. Later supply prefects are only exposed by chance in ecclesiastical sources generally uninterested in civil

[852] Howard-Johnston 1995a, 131-142; Kaegi 2003, 83-85, 132-141.
[853] Howard-Johnston 1999, 19-22, has a good overview of this campaign.
[854] Haldon 1990, 395.
[855] Joh. Eph. *HE* 3.6.14 [309].

positions. It would be extremely surprising if they represent a full and accurate list of all the holders of this position. There may have been many permanent supply prefects who were not recorded because they did their job well enough that contemporary historians did not feel the need to mention them. It has been suggested that the position of supply prefect became permanent as early as the time of Justinian, and while that might be a little early it is not impossible.[856]

3.6 Conclusions

The creation of the supply prefects was an adaptation to the changed circumstances of the fifth and sixth century. Having a prefect specifically linked to supply stationed in proximity to the war zone made for an undisputedly powerful official and an unambiguous head for the chain of command. Despite their attachment to the army they were a strictly civil post. They appear to have been effective in this task and their use expanded over time until they became common components of any major army and were possibly assigned to all armies.

---

[856] McGeer 1991.

TABLE 3: TITLES USED FOR KNOWN SUPPLY PREFECTS

Official	Title	Source
Pentadius	*vice praetorianae praefecturae* (?)	*CJ*. 12.8.2.4 (440-441)
Apion, Calliopius	ܗܘܦܪܟܐ (HUPARKA)	Ps-Josh. 54 [281], 70 [295], 77 [300]
Apion, Tatianus	ὁ χορηγός τῆς τοῦ στρατοπέδου δαπάνης	Proc. *BP* 1.8.5, 2.10.2
Apion	ὁ ἔπαρχος πραιτωρίων ἀνατολῆς	Malal. 16.9 [398]
Apion	ὁ ὕπαρχος τοῦ στρατεύματος	Theoph. AM 5997 [146]
Calliopius	ὁ στρατηγός τῇ τοῦ δαπανήματος ἀρχῇ	Theoph. AM 5998 [148]
Archelaus	ὁ ἔπαρχος τοῦ στρατοπέδου	Proc. *BV* 3.11.17
Archelaus	ὁ χορηγός ἔπαρχος τῆς δαπάνης	Proc. *BV* 3.15.13
Symmachus	ὁ ἔπαρχος καὶ χορηγός τῆς δαπάνης	Proc. *BV* 4.16.2
Eutychianus	ὁ ἔπαρχος τοῦ στρατοῦ	*V. Theod. Syc.* 152.53

4. QUAESTOR EXERCITUS

4.1 Introduction

In addition to the emergence of supply prefects as a regular feature of military supply arrangements, the sixth century saw another innovation in the form of the *quaestor exercitus*. Like the supply prefects, the quaestor was a position intended to replace the prefect in certain duties for the main purpose of army supply. Unlike the supply prefects, the quaestor addressed the need of a single region and had duties beyond army supply. This section will explore this position’s background, evolution, and significance.

4.2 Title[857]

Unlike the supply prefect, the creation of the post of *quaestor Iustinianus exercitus* (quaestor of the army) can be assigned a precise date: 16 May 536, as recorded in a law of Justinian.[858] As with the post of supply prefect the titles given in Greek

---

[857] See full list on Table 4 (page 213).
[858] *Epit. Iul*. 41; Torbatov 1997, 78.

sources are quite illuminating. John Lydus calls him the ὕπαρχος τῆς Σκυθιάς, "the prefect of Scythia", later calling him more explicitly ἔπαρχος ἐπόπτης τῶν Σκυθικῶν δυνάμεων "the prefect overseeing the Scythian forces."[859] Other authors use different titles. Agathias describes one holder as στρατήγος ἐκ Μύσιας τῆς πρὸς τῷ Ἴστρῳ ποταμῷ παρατεταμένης (a general from Moesia which lies along the Danube River), Theodore Scholasticus calls him the ἄρχων τῶν στρατιωτῶν (commander of the soldiers), while Menander Protector speaks of the ἀρχή τῶν νήσων (command of the islands).[860]

It might be expected that legal sources would be more consistent when it came to titulature but later novels refer to the position as ἔπαρχος τῶν νήσων (prefect of the islands), ἔπαρχος τῶν ἐπὶ Μυσίας καὶ Σκυθίας στρατιωτικῶν καταλόγων (prefect of army register in Moesia and Scythia), and the ἀρχή τῶν νήσων καὶ τῶν ἐπὶ Σκυθίας τε καί Μυσίας στρατιωτικῶν ταγμάτων (command of the Islands and the army units in Moesia and Scythia).[861] Even in Latin he seems to have had multiple official titles, with a *praefectus Insularum* attested in later seals.[862] The lack of uniformity and use of both military and civil titles to describe the post demonstrates a certain confusion, or at least vagueness, about the quaestor's role.

There are two elements that keep appearing in these titles and both are important. The first is the association of the position with the army and specifically the army units posted along what are presumably the frontier garrisons on the Danube. The *quaestura* contained one of the most heavily fortified zones in the empire since it protected Thrace from barbarian inroads. The second is the connection between his role and water transport. The Lower Danubian *limitanei* maintained a navy whose purpose was to keep their fortresses along the banks of the river supplied and prevent enemies from

---

859 Lydus, *Mag*. 2.28 [24], 2.29 [14-15]. Lydus sometimes uses hyparch instead of eparch when referring to prefects. Thus for example the use of ὁ τῆς πόλεως ὕπαρχος for the prefect of the city (1.38 [2]).
860 Agath. 1.19.1; Theod. *Epit. Nov*. 41; Men. Prot. fr. 21.17. Contra Wiewiorowski 2006, the position is not the "archon of the Islands". Ἀρχή is too broad a term to imply only one possible title.
861 *JNov*. 69 (538), 148.1 (566), 163.2 (575). Athanasius calls him the Κουαέστορα EXERCITU, which is clearly just a transcription of the Latin term (Athan. *NS* 4.12). See Table 4 (page 213) for a complete list of recorded titles and descriptions of the position.
862 Zacos 2928.

crossing.[863] Control of the river was extremely important to the army since many of the inland routes were insecure and vulnerable to barbarian invasions.[864]

4.3 Origin of the Position

The quaestor of the army was created to deal with the unique situation in the eastern Danubian provinces in the early sixth century. The tax and supply system for this region had been in trouble since the late fourth century when the defeat of Valens at Adrianople had left the entire region open to barbarian incursions.[865] The situation improved in the early fifth century but the appearance of the Huns in the 440s quickly showed the deficiencies of the system. Marcianopolis was sacked, Thrace was overrun, and the Huns penetrated as far as Thermopylae.[866] Even after the death of Attila and the breakup of his empire, problems persisted as other threatening barbarian groups emerged such as Gepids, Slavs, Lombards, and Avars.[867]

Justinian attempted to improve matters by taking the offensive and once he secured peace on the Persian border he ordered a series of campaigns across the Danube. This went well until Hilvud, his *magister militum per Thracias*, was defeated and killed by Slavs along with his entire army in 533.[868] With no units to support the now endangered soldiers on the Danube, Justinian was forced to improvise. In 535 he created the position of *praetor Iustinianus Thraciae*, an official with both civil and military authority over the entire diocese of Thrace.[869] Justinian's stated objective for combining civil and military authority in this way was to reduce friction between the *magister*

---

[863] Bounegru & Zahariade 1996, 103-109.
[864] Whitby 1988, 62.
[865] Whitby 1988, 66-69; Liebeschuetz 2007, 101-132.
[866] Kim 2013, 71.
[867] Curta 2001, 190-226.
[868] Proc. *BG* 37.14.1-5; *PLRE* 3.286-287 (Chilbudius 1). Matters were going better on the upper Danube however and Justinian was able to win back Sirmium and provide more security for the western end of the frontier (Sarantis 2009, 21-24). This however, fell in the prefecture of Illyria and were not the prefect's concern.
[869] *JNov.* 26.1 (535). Wiewiorowski 2006, 321, claims that the main previous source on the subject (Torbatov 1997) stated that the quaestor was a purely civil role but it does not make any such claim.

militum per Thracias and the *vicarius Thraciae*.[870] The cause and consequences of this quarrel are never elaborated on, but such infighting may be due to the unbearable strain placed on the supply system which would have left both magister militum and vicar in an impossible situation.

The identity of the first incumbent for this new post of praetor is unknown, but he would have been assisting the *magister militum praesentalis* Sittas in both capacities during the summer's campaigning in 535. Sittas was able to turn back a Slavic invasion in Moesia this year.[871] While this might be thought to have proven that Justinian's new system was working, the emperor still felt the need to further narrow the focus of the Danubian officials. While the praetor continued to administer the southern provinces of Thrace, in the north he was replaced by the *quaestor exercitus*.[872] Presumably the quaestor was intended to correct difficulties that arose during Sittas' successful campaign. We can get some idea what this solution was by looking at the quaestor's role.

Unlike the creation of the supply prefects, we have explicit imperial testimony for the creation of the *quaestor exercitus*. In *Novel* 41 Justinian created the office and appointed Bonus as the first quaestor. Unfortunately, *Novel* 41 has been lost. The only evidence for it now comes from three Byzantine lawyers: Julian, Athanasius of Emesa and Theodore Scholasticus.[873] Julian's work was written in the mid-sixth century (before 555) at a time when the novel was still in force.[874] His work is a Latin summary of the *Novels* for a Western audience and his epitome of *Novel* 41 is thorough enough that it is worth quoting in full:

> This constitution appointed a *vir magnificus* called Bonus *quaestor exercitus*. For in ancient times there were two magistrates called quaestors, one of whom stayed with the emperor, while the other quaestor was given command of the army. This constitution established the *annonae* of the quaestor and his councillors; and gave

[870] *JNov*. 26 Pref. (535). The novel refers to the two vicars (military and civil) on the Long Walls. While the civil vicar is clearly the *vicarius Thraciae* it is not clear why the *magister militum* is referred to as a vicar or, if he is not the official referred to, who else the vicar could be.
[871] Marc. com. s.a. 535.3; *PLRE* 3.1160-1163 (Sittas 1).
[872] *Epit. Iust*. 58.
[873] Wiewiorowski 2006, 322.
[874] Wiewiorowski 2006, 322-323.

> him a staff resembling that of the praetorian prefect; that is: *scriniarii*, *ab actis*, *praecones*, *commentarienses* and *lampadarii* and the whole order after that. It also said that he should distribute as much *annona militaris* to the *comitatenses* as to *limitanei*., in the way it should be distributed. It subjected to him five provinces, that is Scythia, Moesia, Caria, and all the islands of the Cyclades and Cyprus. It also granted him the right to hear cases, so that men could not avoid his jurisdiction. It included also the list of expenses.[875]

It is unclear what is meant by the reference to two quaestors, one staying with the emperor and the other commanding the army. Justinian's novel seems to be referring to the *quaestores Augusti*, who were appointed by the emperor and remained in attendance on him.[876] The separation of duties that Justinian describes has more to do with his own policies than with those of Augustus. Justinian was fond of claiming an ancient connection to make his innovations seem less radical, which is probably what we are looking at here.[877]

The other two sources agree with the essential points, although they differ on some of the details. Athanasius' work was written as an aid to practicing lawyers and as such summarizes the active novels. His work was published in Greek at Antioch in the 570s and is much briefer than Julian's.[878]

> The constitution speaks about the authority over the Islands [and] subordinates to him Cyprus, Rhodes and the Cyclades, Caria, Moesia, Scythia [and it] calls their governor the *Quaestor Iustinianus exercitus*, and it also orders him to command

---

[875] "Haec constitutio quendam virum magnificum Bonum nomine quaestorem exercitui fecit. Nam et more antiquo duplex erat quaestorum magistratus, et unus quidem circa latus principis erat, alter autem quaestor exercitui praeerat. Disposuit autem praesens constitutio etiam annonas quaestoris et consiliarii eius; apparitionem quoque ei dedit ad imitationem quandam praefecti praetorio, id est scriniarios, et ab actis, et praecones, et commentarienses, et lampadarios, et omnem deinceps ordinem, sed et annonas militum tam comitatensium quam limitatensium disposuit, quomodo distribui debeant. Subiecit autem ei et quinque provincias, id est Scythiam, et Mysiam, et Cariam, et omnes Cycladas insulas et Cyprum totum. Causarum quoque auditorium habere ei concessit, ut non obiiciatur ei fori praescriptio. Subiunxit autem et notitiam impensarum" (*Epit. Iul.* 38).
[876] Badian & Honoré 2012.
[877] Maas 1986, 19-23. Justinian was particularly interested in establishing an elevated history for his new legislation.
[878] Simon & Troianos 1989, vii-ix; Wiewiorowski 2006, 324.

> the soldiers of those provinces and to examine appeals which are coming from it, and gives the eparch the same rank as a praetorian [prefect].[879]

The most significant additional detail included in this epitome is that it states that the quaestor held military command in the region.

Theodore Scholasticus also wrote a summary of imperial novels for practicing lawyers.[880] His text is the least detailed of all but it contains several details that the other two do not.

> Cyprus and Rhodes and all the Cyclades Islands, and also Caria, and Moesia, and Scythia have special administration under the *Iustinianus quaestor exercitus*, who has the position of eparch [and] has his seat in Odessus, and he [is] archon of the soldiers in those provinces. The eparch of the Islands shall accept the appeals.[881]

This text is again explicit about the military command held by the quaestor, in addition to listing his seat as Odessos and mentioning the eparch of the Islands.

4.4 Purpose

The strong connection of the quaestor to the role of prefect is obviously justified from this novel alone, but it is even stronger in other novels. Later imperial novels actually list the quaestor among the praetorian prefects. This can be seen in Justinian's novel from only two years after the establishment of the office: "The glorious praetorian prefects under our sway shall publish this law, when they receive knowledge thereof, in

[879] περὶ τῆς ἀρχῆς τῶν νήσων φησὶν ἡ διάταξις, ὑποβάλλουσα τῇ τοιαύτῃ ἀρχῇ Κύπρον, Ῥόδον καὶ τὰς Κυκλάδας νήσους, Καρίαν, Μυσίαν, Σκυθίαν, τὸν τούτων ἡγούμενον Ιουστινιανὸν QUAESTORA EXERCITU προσαγορεύουσα, καὶ τῶν στρατιωτῶν ἡγεισθαι τῶν αὐτῶν ἐπαρχιῶν κελεύουσα, καὶ τὰς ἐκ τούτων πεμπομένας ἐκκλήτους εξετάζειν αὐτὸν διατυποῦσα καὶ πρός γε τὴν ἴσην τάξιν αὐτῷ τῶν ἐπάρχων τῶν PRAETORION ἀπονέμουσα (Athan. *NS* 4.12, tr. Simon & Troianos).

[880] Wiewiorowski 2006, 325-326.

[881] ἡ Κύπρος καὶ ἡ Ῥοδος, ἤγουν καὶ Κυκλάδες νῆσοι πᾶσαι, ὁμοίως δέ καὶ ἡ Καρία καὶ ἡ Μυσία καὶ Σκυθία, ἰδικὴν ἐχέτωσαν διοίκησιν ὑπὸ Ἰουστινιανὸν οὖσαι κοιέστωρα EXERCITου, ἔχοντα τάξιν ἐπάρχου, καθεζόμενον ἐκ Ὀδύσσῳ, καὶ ἄρχοντα τῶν ἐν ταῖς εἰπημέναις ἐπαρχίας στρατιωτῶν. ὁ ἔπαρχος τῶν νήσων τὰς ἐκλήτους αὐτῶν δεχέσθω (Theod. *Epit. Nov.* 41, tr. Wiewiorowski).

all dioceses under their jurisdiction, and in all Italy, in Libya, in the Islands, in the Orient and in Illyria."[882]

The reference to the islands can only be referring to the quaestor under his title of commander of the Islands since all the other listed regions are prefectures but there is no other position that could match. This can only mean that the quaestor's administrative duties were similar enough to that of a prefect that they could be classified as such. In fact, over the course of the sixth century the title Prefect of the Islands, was to become more common than his original title, which only appears in the first two novels.[883]

The focus on the Islands brings up an interesting point about the nature of the *quaestura*. The quaestor himself was stationed at the city of Odessus, on the Black Sea coast in the province of Moesia II, formerly the northernmost province of the diocese of Thrace. This province and the neighboring one of Scythia (also included in the *quaestura*) held the Lower Danubian frontier line with its string of fortifications and army units guarding Thrace and the capital from barbarian invasion.[884] That these two provinces were grouped together seems only natural because of their similar needs. What is more unusual is that they were also grouped together with the province of Caria, in southern Asia Minor, and the islands of Cyprus and the Cyclades.[885]

There have been several suggestions for this arrangement, ranging from strengthening the organization of the navy, to expanding the recruiting range for the frontier army, to improving trade with the Balkans, to shifting the expenses of the army to richer provinces.[886] The most commonly accepted explanation currently is that proposed by A.H.M. Jones. He proposed that the southern provinces were included to

---

[882] "Gloriosissimi igitur praefecti sacrorum nostrorum praetoriorum qui per omnem subiectam terram consistunt legem hanc cognoscentes proponant et per dioecesis sub se constitutas et in omni Italia et Libya et insulis et Oriente et quodcumque in Illyrico est" (*JNov.* 69 Epil [538], tr. Blume).

[883] *Epit. Iul.* 38; *JNov.* 50 (*quaestor exercitus*), 69 Epil. (eparch in the Islands), 148.1 (eparch of army register in Moesia, and Scythia), 163.2 (command of the Islands and army units in Moesia and Scythia).

[884] For a survey of the Danubian *limes* see Curta 2001, 150-169.

[885] Torbatov 1997, 78; Jones, *LRE* 482-483.

[886] Stein 1949, 474-475; Kyrris 1992, 9; Caldwell 2012, 110; Whitby 1988, 70; Torbatov 1997, 78. Treadgold 1995, 15-16, goes so far as to consider that the quaestor was in fact simply the new commander for the Roman navy.

provide a reliable food supply for the army stationed in the northern ones.[887] The provinces of Moesia II and Scythia were poor and underpopulated with little wealth to support the large number of army units stationed on their borders.[888] By including three productive provinces Justinian allowed the quaestor to feed the soldiers of his *quaestura* without having to seek goods from other dioceses. The islands were great providers of cereals and wine and Caria produced these as well, along with having plenty of pasture for raising animals.[889]

This theory receives support from a novel issued the year after the establishment of the *quaestura*. In a discussion about the judicial responsibilities of the quaestor Justinian decrees that "if it happens that a case is commenced before you while here, but it becomes necessary for you, on account of (distribution of) military supplies, to leave, the cases shall be heard by your representative in this case".[890] This makes it clear that the quaestor's primary duty involved supplying the army.

Because of his duty ensuring army supply it has been suggested that the quaestor is in fact a permanent supply prefect under another name.[891] It is true that the quaestor's main function is the same as that of the supply prefects, the supply of the army, but he was in many ways more similar to a regular prefect. His command did not allow him to draw from neighboring regions but incorporated a regional restriction like other prefects. The fact that his provinces were so far apart should not obscure that fact. He also had judicial duties that the supply prefects lacked, even though most of these would have been handled by his deputy.

To supply these northern forces required a fleet of cargo ships, which was another excellent reason for including the Cyclades. The transport fleet *classis Carpathia* was

---

[887] Jones, *LRE* 280. See for example Hendy 1985, 645-646; Torbatov 1997; Lee 2007b, 109-111; Curta 2001, 185-189.
[888] Curta 2001, 142-150; *CJ* 10.27.2.10. Zahariade 2006, 138-140, estimates a fourth-century population of 650-800,000 people but concedes that the population declined drastically in the fifth and sixth century.
[889] Deligiannakis 2008, 228; Deligiannakis 2016, 87-97. These conclusions are based on an archaeological examination of early churches along with evidence acquired from inscriptions and mosaics.
[890] "Si vero incohari apud tuam gloriam contingat litem hic forsan inventam, deinde in medio propter militares expensas proficisci, eam sine dilatione compleri apud eum qui tuum optinet locum, sicut eam ipse audiebas" (*JNov.* 50.2 [537], tr. Blume).
[891] Whately 2013, 916 n. 147.

located on the island of Carpathus, and along with the Alexandrian fleet was one of the two main transporters of grain to the capital.[892] It would have been invaluable in transporting supplies to the Danube frontier. This fleet is not attested after 409, but the inhabitants of Carpathus still had a reputation for sailing big merchant ships in the early seventh century which implies that they were still participants in the Alexandrian grain trade.[893] With this fleet, supplies from Caria and the islands could easily have been transported to Odessus. From Odessus the supplies could be shipped upriver using one of the multiple fleets operating on the Danube.[894]

Odessus was ideally positioned to be a supply hub for Moesia. It was located in a sheltered position at the top of what is now the bay of Varna on the Black Sea coast and was connected to the interior by rivers and a major road. It was close to the mouths of the Danube as well and any fleet headed in that direction would have to pass by the city. Prior to the sixth century Odessus had been the main port for bringing supplies into the old capital at Marcianopolis.[895] Unlike the inland Marcianopolis, Odessus was a port city with a secure line of transport and communication to Constantinople, a necessity for provinces so reliant on outside sources of grain. The quaestor was somewhat isolated from his southern provinces, which was probably why he had a deputy stationed at Constantinople. Constantinople was the center of the Empire and anyone travelling between the Aegean and the Balkans needed to go through it.

Despite the novels' focus on his civil functions, most contemporary writers were more interested in his military command. Agathias refers to him as a general (στρατήγος) while other sources describe his command of the armies.[896] He is mainly referred to in the context of his responsibilities for the security of the Danubian frontier.

---

[892] *CTh*. 13.5.32 (409); Deligiannakis 2008, 213-216; Grosse 1920, 72. The fleet is not mentioned in the *Notitia Dignitata*, possibly because it was only used for transport or possibly because it only later split off from the Syrian fleet.
[893] Isid. *Etym*. 14.6.24.
[894] Zahariade 2006, 184-185. Although presumably outdated at this point the *Notitia Dignitata* (39-42) lists numerous fleets in the Danube region under the various *duces*.
[895] Caldwell 2012, 109; Velkov 1977, 99-100.
[896] Agath. 1.19.1; Evag. 5.1 [196]; Men. Prot. fr. 21.

4.5 Careers

As with the supply prefects it is important to look not only at the general duties of the position but also at the officials who held it. Unfortunately, the position is, in many ways, even more obscure than that of supply prefect. With two exceptions the holders of the post are known only through a reference in a single author. An even more serious difficulty is the fact that with such an inconsistent title, identification of the quaestors is often only possible through a description of their duties. Since the sources are vague on many details of the organization of the region, passing references to generals on the Danube could mean the quaestor, the *magister militum per Illyricum*, a *magister militum praesentalis* temporarily campaigning in the region, or some other official. This means that the identification of quaestors is often uncertain.[897]

4.5.1 Bonus (536-552?)[898]

Unlike the supply prefects we can identify the first *quaestor exercitus* with confidence. Bonus was appointed quaestor of the army in the same novel which created the position.[899] He received the position in 536 and he was apparently still holding it when he came to Italy with Narses in 552.[900] Agathias describes him as "Bonus, the general from Moesia which lies along the Danube River […], a man of exceptional sagacity and exceedingly good at both civil affairs and war," when Narses gave him the city of Lucca to garrison.[901]

It is unclear why Bonus would have left his post to serve in Italy. Agathias does not say whether he had been replaced as quaestor or whether he was still quaestor while

---

[897] In creating the position, Justinian removed the vicar and the magister militum, but the vicars were back by 576 (when the quaestor was certainly still around) and the magister militum (στρατηγός τῆς Θρᾴκην ἑκατέρας δυμάμεως/στρατηγός τῆς Εὐρώπης) was present in the wars of Maurice in the 590s (*PLRE* 3.120 [Armatus 2]; Theoph. Simoc. 6.4.7, 6.5.13, 8.13.2). There was also a magister militum per Thracias (στρατηγός καταλόγων τῶν ἐπὶ Θρᾴκης) serving in Italy in 550, alongside the ex(?)-quaestor exercitus Bonus (Proc. *BG* 3.39.8; *PLRE* 3.125-130 [Artabanes 2]).
[898] *PLRE* 3.240-241 (Bonus 1).
[899] *Epit. Iul*. 38.
[900] He is in attested in Italy 553 when he was left in command of Luca, which means he presumably came over with Narses in 552 (Agath. 1.19.1).
[901] Βόνος ὁ στρατήγος ὁ ἐκ Μυσίας τῆς πρὸς τῷ Ἴστρῳ ποταμῷ παρατεταμένης, ἀνήρ συνέσεώς τε ἐς ἄκρον ἥκων, καὶ λίαν ἀγαθός τά τε πολιτικὰ καὶ πολέμια (Agath. 1.19.1, tr. Frendo).

serving on detached duty in Italy. Although this latter interpretation would explain the increased invasions during this period, this result is such an obvious consequence of removing the main army commander from the border that it seems inconceivable that Justinian would not have considered it. Justinian did appoint a *magister militum per Thracias* at this time, but he too was serving in Italy, so any defense would have to be handled by the quaestor's deputy or another officer diverted for this purpose.

Two other possibilities are more likely for explaining Bonus' position at the time of the Italian campaign. The most obvious is that Bonus had finished his post as quaestor earlier and was now an ex-quaestor. The other possibility is that Agathias is confusing him with another official by the same name. Without knowing what source he was using for this information the possibility cannot be ruled out. Agathias' justification for his appointment to the position certainly seems to argue against this conclusion. There were few other careers where an official could gain both civil and military experience. While this possibility cannot be ruled out it is more likely that Bonus had simply finished his term of service and moved on to a new post.

His career seems to have been mainly military although Agathias emphasizes that he had experience in both civil and military matters.[902] Certainly he was serving as a military officer during Narses' wars in Italy. He is not heard of after this.

4.5.2 Justin (561?-565/566)[903]

The next known quaestor was Justin, the son of Justinian's cousin Germanus. The careers of imperial relatives are often irregular and Justin's was no exception. He was made consul in 540 and served with his father during Khusrau's invasion of the east when he would only have been in his teens.[904] From this point on he served in a series of

---

[902] Agath. 1.19.1.
[903] *PLRE* 3.750-754 (Iustinus 4). Zahariade 2006, 33, misidentifies him as Iustinus 5 (3.754-756), the future emperor, who is attested in Constantinople at this time.
[904] Malal. 18.87 [480]. His date of birth is uncertain but *PLRE* 3.750 (Iustinus 4) estimates that he must have been born c. 525.

military positions until he achieved the rank of *magister militum per Armeniam* in 557.[905] His military experience in this post was likely negligible since peace was established later that year, although he did engage in some diplomatic activity and forwarded a message to Justinian from a group of Avars looking to establish relations.[906] While Justin was serving in Armenia the Balkans were coming under increased pressure. A Hunnic invasion in 559 made it past the Long Walls and was almost at Constantinople itself when it was driven back by Belisarius.[907] Shortly after this Justin was appointed to his new post on the Danube and he is attested there in 561.[908]

It is as a general that Justin was primarily remembered. Evagrius states that he was "stationed on the Danube and was preventing the Avars from crossing."[909] Agathias also recalled favorably how he had prevented the Avars from crossing the Danube to raid Roman territory.[910] His record in this command was mixed. While contemporary historians seem to have liked him, he could not hold back a large invasion of Huns in 562. These Huns sacked at least two cities, apparently including the quaestor's headquarters at Odessus, and were only driven back by Justin's cousin Marcellus.[911]

One area where Justin did experience some notable success was in diplomacy. Justin received a request from a group of Avars who had been raiding Scythia asking for permission to settle on Roman lands as *foederati*. This would have greatly eased the Roman manpower shortage in the region and probably have provided new recruits for the army, but Justin recommended that they be detained since a friendly Avar had informed him that the proposed settlement was just a ruse to get the Romans to lower their guard.

---

905 Agath. 4.21.1.
906 Agath. 4.30.9-10; Men. Prot. fr. 5; Malal. 18.125 [489]; Theoph. AM 6050 [232].
907 Agath. 5.13-21; Evag. 5.1 [196]; Malal. 18.129.
908 Men. Prot. fr. 5.4. Menander calls him a general (στρατηγός). Since the *magister militum per Thracias* was still in abeyance some authors have taken this to mean that he was *magister militum per Illyricum* (Jones, *LRE* 304; Blockley 1983, 253 n. 27), but since the proposed Avar settlement was in Scythia and Moesia II (both in the prefecture of the East) this cannot be right.
909 ἀμφὶ τὸν Ἴστρον τὰς διατριβὰς ποιούμενον, καὶ τὰς πῶν Ἀβάρων διαβάσεις ἀνείργοντα (Evag. 5.1 [196]).
910 Agath 4.22.7.
911 Theoph. AM 6054 [236-237]. The original text gives ὁ Βαισίπολις or ὈΒαισίπολις for the name of the city, but this is generally regarded as a corruption. It has been suggested that Obaisipolis was actually Odyssopolis or Odessus (Mango & Scott 1997, 349 n. 12). See *PLRE* 3.816-817 (Marcellus 5).

While the ambassadors were delayed Justin ordered the commander of his household guard to prepare the defenses on the Danube and prepare for an invasion. When the envoys returned without having agreed on a treaty but with weapons they had purchased while in the city Justin confiscated their new arms and sent them back empty handed.[912]

Justin's relation to the imperial family must have been of great benefit to him in managing this post. It must have been difficult to find a military officer who had the diplomatic and administrative skills necessary for such a position. This may explain the irregularly long service of these two officials. The rest of Justin's career as quaestor is unrecorded, but the sources are clear that he held the position until his cousin (also named Justin) became emperor on Justinian's death in 565.[913] Justin II quickly dismissed his cousin from service and banished him to Alexandria where he later had him murdered.[914]

4.5.3 Justinian? (566-5??)

In 566 Justin II issued a novel addressed to the ἐνδοξότατος Ἰουστινιανός ἔπαρχος τῶν ἐπὶ Μυσίας καὶ Σκυθίας στρατιωτικῶν καταλόγων (the *vir gloriosus* Justinian, eparch of army register in Moesia and Scythia) authorizing him to remit tax debts for the provinces under his command, a clearly prefectural responsibility.[915] This seems to refer to an otherwise unknown quaestor called Justinian, but the novel is not as clear as it might seem. The Novel refers to him as Ἰουστινιανός ἔπαρχος, which may be similar to *quaestor Iustinianus exercitus*, where *Iustinianus* simply indicates that Justinian founded the position. That means that Ἰουστινιανός ἔπαρχος would mean not Justinian the eparch but the (unnamed) Justinianic eparch. While this is possible, it is more likely that he was actually called Justinian and the fact that he shares that name with the former emperor is just a coincidence.

This Justinian may be Justin II's cousin, the brother of the previous quaestor. There is a gap in Justinian's known career between his service in Illyria in 552 and his

---

[912] Men. Prot. fr. 5.4. Evag. 5.1 [196], mentions this incident although in much less detail.
[913] Evag, 5.1 [196]; Nic. Call. *HE* 17.34 [789].
[914] Evag. 5.2 [196-197]; Nic. Call. *HE* 17.34 [790]; Theoph. AM 6063 [244]; Turtledove 1977, 58-61.
[915] *JNov.* 148.1.

service as *magister militum per Armeniam* in 572.[916] It is plausible that Justin II would promote him to quaestor in the place of his brother since he seems to have made a strong effort to put Justin's mind at ease when he ascended to the throne. If that was his intent then Justinian's career as quaestor may have been rather brief as the emperor quickly abandoned all pretense of promotion and banished his cousin to Alexandria.

If he was the quaestor then his career was similar to his brother's, with whom he served at several points. Apparently not considered a serious threat, he continued a long and occasionally successful career until he was dismissed from his post in 577 and replaced by the future emperor Maurice.[917] If the quaestor was a different Justinian then his career is unrecorded outside this single mention.

4.5.4 John (fl. 578)[918]

The next known quaestor followed a different career path. Menander describes him as "John, who was then finishing his rule of the Islands and held command of the cities of Illyria."[919] This seems to mean that he was serving as both praetorian prefect of Illyria and quaestor of the army in 578.[920] The reason for combining these positions is unknown but there may have been some difficulty in supplying the Danubian soldiers that required the added income from the Illyrian provinces. Alternatively the situation in Illyria may have needed a stronger hand. In any case, this seems to imply a more administrative role for the quaestor.

It is also possible that he was given both responsibilities because of his assignment. John was charged with the task of escorting a force of Avar cavalry (supposedly 60,000 strong), along with their khagan Baian, across the Danube into Roman territory and then through Illyria into Scythia where he transported them back

[916] *PLRE* 3.744-747 (Iustinianus 3).
[917] Evag. 5.19; Nic. Call. *HE* 18.5 [813]; Joh. Eph. *HE* 3.6.27 [330].
[918] *PLRE* 3.677 (Ioannes 91).
[919] Ἰωάννης, ὃς δὴ τῶν νήσων διήνυε τὴν ἀρχὴν τηνικαῦτα καὶ τὰς Ἰλλυρίδας ἰθύνειν ἔλαχε πόλεις (Men. Prot. fr. 21.17-18).
[920] *PLRE* 3.677 (Ioannes 91).

across into Slavic lands.[921] It is inconceivable that he would be given this task if he was not in command of a substantial army. Baian had only recently been at war with the Romans and was not a trustworthy ally.[922] An official who managed supplies while still retaining military command was ideally suited for escorting and supplying a large force of barbarian allies.

4.5.5 Julian (fl. 580)[923]

The next holder of the office was definitely on a civil career path. John of Ephesus, an ecclesiastical historian writing in Syriac, describes a moment in his career. In 580 riots broke out in Constantinople over the proceedings of some pagan trials. Tiberius had hidden in his palace while the rioting continued, but once he left he "dismissed the prefect Sebastian from his office, and appointed in his stead another who was hyparch NSYWS (ܗܘܦܪܟܐ ܕܢܣܝܘܣ) whose name was Julian."[924] The title hyparch NSYWS is confusing, but it is now thought to be a Syriac rendition of ὕπαρχος νήσων or prefect of the islands.[925]

Julian's task was to preside over the identification and punishment of the rioter leadership. From the suddenness of his appointment it seems that Julian was in the city when it happened, which is surprising given the serious situation on the Danube.[926] Julian was serving only two years after John had been in office, which suggests that the position was no longer held for such lengthy periods of time. There had been a decrease in the border pressure since the invasion of 562. This gave the Romans time to restore some stability to the area, as can be seen by the fact that the *vicarii Thraciae* appear to have returned by 576.[927] This stability was achieved by largely abandoning the countryside and

---

[921] Men. Prot. fr. 21; Curta 2001, 91-92.
[922] Whitby 1988, 84-89; Pohl 1988, 61-65. He was to attack Sirmium only the following year.
[923] *PLRE* 3.737-738 (Iulianus 20).
[924] Joh. Eph. *HE* 3.3.32 [163.17], tr. Smith.
[925] Wiewiorowski 2006, 328-329.
[926] At this time Sirmium was under siege by the Avars (Men. Prot. fr. 27; Theoph. Simok. 1.3.3-4) and Slavic bands were raiding the lower Danube (Joh. Eph. *HE* 3.6.25 [327]). See Petersen 2013, 580-581; Pohl 1988, 70-76; Whitby 1988, 80-89
[927] *PLRE* 3.120 (Armatus 2). An inscription from 575/576 records work done by Ἀρμάτος βικάριος Θρᾴκης.

moving to coastal cities and fortresses along the Danube. As long as the army could be supplied by ship and the forts and cities withstand an assault the frontier could remain intact despite the destruction of the hinterland. This would seem to suggest that the quaestor's role was as important now as ever, but Julian is the last recorded quaestor. Sometime after his service imperial policy changed. By the time of Maurice's Balkan Wars the *magister militum per Thracias* had been brought back to command the army.[928]

4.5.6 Theodore (Sixth Century)[929]

There was an official named Theodore, who is known only from his seal. Of his career, identity, and years of service all that is known is that he served as *praefectus Insularum* at some point in the sixth century.[930] This is just a Latin translation of ἔπαρχος or ὕπαρχος νήσων.

4.6 Conclusions

What became of the position can only be speculated about but if the position kept its power into the seventh century then it must have lost its men after Phocas and then Heraclius transported most of the army from Thrace into Asia Minor. The invasions of 614-619 saw most of Thrace lost to imperial authority.[931] Certainly the Avars were to have no difficulty reaching as far as the walls of Constantinople itself in 626.[932]

The quaestors served largely as praetorian prefects. While it is clear that they frequently led soldiers none of the sources record them actually leading them into battle. The closest the sources come to identifying a military role is with Justin, when he orders his subordinate Bonus to prepare for an invasion. In fact, despite Justin having the reputation of a man protecting Roman lands from barbarian incursions, in the one

---

[928] The three successive commanders of his army were *PLRE* 3.1052-1057 (Priscus 6), 3.1009-1011 (Petrus 55), 3.321-325 (Commentiolus 1); Theoph. Simok. 6.4.7; 8.4.9; 8.13.2.
[929] *PLRE* 3.1266 (Theodorus 84).
[930] Wiewiorowski 2006, 329.
[931] Madgearu 1998, 223. By the time Heraclius was ambushed by the Avars Thrace had been basically lost to the Empire (Nic. Con. *BH* 15).
[932] *Chron. Pasch*. s.a. 626 [716-725]; Nic. Con. *BH* [20]; Kaegi 2003, 118-120, 133-138.

recorded campaign during his term of office it was his cousin who is credited with the fighting.

This seems to suggest that despite the historical sources being interested in the quaestor as a soldier his military role was minimal. It was likely that it was primarily to make it easier for him to move forces around for more convenient supply reasons. The Danube frontier does not seem to have been able to prevent barbarians from invading so any campaigning he did was likely confined to harassment raids and other attempts to protect the forts that held the soldiers. When the Romans were conducing serious campaigning in the region they brought up *magistri militum*.

The most curious thing about the quaestors is that when filling that office emperors apparently did not distinguish between civil and military officials. While the first two were definitely soldiers serving in the military hierarchy it is hard to imagine that Julian the prefect of the City was a former military officer. Another oddity is that a number of these officials seem to have served in office for quite a long time, contrary to the normal procedures for official posts. Justin might be explained away since the careers of imperial relatives were often abnormal, but Bonus may have been in office for sixteen years. This seems to have been a response to an emergency situation that needed long-term attention from officers who did not change every few years. The gradual stabilization of the border combined with Justinian's refortification program would have alleviated the need for this during the late 560s and early 570s.[933]

While the *quaestores* and supply prefects are both innovations in the use of prefectural officials for supply purposes during the fifth/sixth century, they were addressing different needs. Supply prefects were created as temporary figures to supply armies on campaign and were limited to that role, while *quaestores* were a permanent regional post with additional judicial functions more similar to the regular prefects. The association of both positions with the prefects shows how vital the prefecture was

[933] Increased specialization may have been a factor in terms of length of service as well, particularly in the case of Justin who had experience dealing with Avar envoys before he was appointed to a post where they were a constant presence (Lee 1993, 43-48). However, the apparently shrinking terms of office in the second half of the sixth century shows that they preferred to keep positions rotating whenever emergency situations were not present.

considered to the supply of the army and also how flexible the system was to changes in the top levels of organization.

TABLE 4: TITLES USED FOR KNOWN *QUAESTORES EXERCITUS*

Official	Title/Description of Role	Source
Bonus	*Quaestor Iustinianus exercitus*	*Epit. Iul.* 38; Theod. *Epit. Nov.* 41
Bonus	Κουαέστορα EXERCITU	Athan. *NS* 4.12
Bonus	ὁ ἔπαρχος τῶν νήσων	Theod. *Epit. Nov.* 41
Bonus	ἡ ἀρχὴ τῶν ἐν ταῖς εἰπημέναις ἐπαρχίας στρατιωτῶν	Theod. Epit. Nov. 41
Bonus	ὁ στρατήγος ὁ ἐκ Μυσίας τῆς πρὸς τῷ Ἴστρῳ ποταμῷ παρατεταμένης	Agath. 1.19.1
	ὁ ἔπαρχος τῶν πραιτωρίων ἐπί τῶν νήσων	*JNov.* 69 Epil. (AD 538)
	ὁ ὕπαρχος τῆς Σκυθιάς	Lydus, *Mag.* 2.28 [24].
	ὁ ἔπαρχος ἐπόπτης τῶν Σκυθικῶν δυνάμεων	Lydus, *Mag.* 2.29 [14-15].
Justin	ὁ στρατηγός	Men. Prot. fr. 5.4
Justin	ἀμφὶ τὸν Ἴστρον τὰς διατριβὰς ποιούμενον	Evag. 5.1 [196]
Justinian	ὁ ἔπαρχος τῶν ἐπὶ Μυσίας καὶ Σκυθίας στρατιωτικῶν καταλόγων	*JNov.* 148.1 (AD 566)
	ἡ ἀρχὴ τῶν νήσων καὶ τῶν ἐπι Σκυθίας τε καὶ Μυσίας στρατιωτικῶν ταγμάτων	*JNov.* 163.2 (AD 575)
John	ἡ ἀρχὴ τῶν νήσων	Men. Prot. fr. 21.17-18
Julian	ܕܢܣܝܘܣ ܗܘܦܪܟܐ (HUPARKA NSYWS)	Joh. Eph. *HE* 3.3.32 [163]
Theodore	*Praefectus Insularum*	Zacos 2928

CHAPTER V: EFFECTIVENESS AND EFFICIENCY

1. EFFECTIVENESS

The preceding chapters have outlined the structure of the commissariat in detail without directly addressing the central concern of the thesis: how well did the late Roman commissariat function? This basic question is actually two closely related questions: how effective the Roman commissariat was and how efficient it was. The effectiveness of the commissariat refers to its ability to keep the army reliably supplied. A perfectly effective supply system would be one that had no supply shortages and provisions that always arrived on time. Efficiency is more difficult to quantify, but it refers to the level of wastage involved in this provisioning and how large the gap was between the supplies raised and the supplies issued. Ideal efficiency would see the amount raised as close to the amount issued as possible.

Effectiveness will be the first issue to be considered as the criteria for its measurement are more straightforward. The effectiveness of an army supply system has many components. First the supplies need to be raised, and they have to be raised quickly enough that the soldiers do not starve before they arrive (1.1 below). Once transported to their destination they need to be stockpiled and kept safe from enemy interference (1.2). If intended for a campaign, they also need to be transported alongside the army (1.3). If successful in all these stages then the supply system has been effective. Judging a system only by its successes would lead to an uneven view of the commissariat, so consideration must also be given to failures of supply, the most notable and dramatic of the period being Julian's Persian campaign (1.4). Considering the issue of failure more broadly, analysis must also be given to the eventual collapse of the supply system in the West (1.5) and the survival and subsequent modification of the system in the East (1.6). The difficulties revealed in times of pressure reveal the vulnerabilities and parameters within which the supply system had to operate.

1.1 Raising Supplies

The Roman commissariat was a sizeable and complicated structure with a large number of officials serving in it. As detailed in chapter two, these officials held a wide variety of posts with overlapping duties. The standardization of these officials was very loose and inconsistent across the various provinces. The hierarchy was not identical across the empire and there were so many local variations that it would have been difficult for the central authorities to keep track. For that reason there was always the potential for confusion.

There are numerous signs of turmoil and disorganization present at the low end of the scale. Abinnaeus' archive includes a letter that indicates confusion on behalf of an *epimeletes* over whether he was supposed to issue supplies to a group of soldiers on detached service.[934] Ammianus recounts the example of a decurion beheaded by Julian's prefect Salutius because he had not managed to deliver his supplies by the promised time.[935] Legal documents are full of complaints about the corruption and inability of tax officials.[936] Tax documents leave impression of chaotic process, full of exemptions and trouble. Another major vulnerability was the danger of crop failure in an agricultural economy. Local crop failures could happen with relative frequency, leaving the liturgical officials with nothing to collect.[937] Late harvests could pose a similar problem. Even if the raising of supplies went smoothly supplies could always be held up by flooding or other natural disasters.[938]

While these examples show that the Roman tax system could be slow and ineffectual at times, the broader view was a different story. Roman armies are rarely described as suffering from supply shortages. Julian's Persian campaign is one obvious example of such a failure, as is Rufinus' failure to keep the army stationed in Châlon supplied and possibly a cause of the rebellion against Maurice, but these were very much

[934] *P.Abinn*. 4.17-18
[935] Amm. Marc. 23.5.6. The promised supplies arrived the following day, by which point it was too late. The fact that Ammianus treats neither the execution nor the late arrival as exceptional, only extremely unfortunate, shows that such occurrences must have been common.
[936] See pages 263-268.
[937] Garnsey 1988, 8-39; Stathakopoulos 2004, 35-56.
[938] Amm. Marc. 14.10.2, 17.8.1.

the exceptions to the rule.[939] The fact that these shortages were even considered worthy of mention shows that the Roman army could generally rely on being supplied.

The chief advantage of the Roman commissariat was its scale. Local failures could be compensated for by the surpluses raised from other regions. The tax revenue extracted from the provinces could be enormous. Before 445, the provinces of Numidia alone had been expected to raise 9,600 *annonae* for the army.[940] That means that this single province supplied enough grain to feed between 1/45 and 1/70 of the armed forces in the empire. This is an impressive figure given the fact that it was not as productive as the three neighboring African provinces or the four Egyptian ones. There is not even any reason to assume that this was the maximum yield that Numidia could support. In fact, considering that 7/8 of the taxes were being remitted, this should be an average yield from the province. The numbers also do not include the 33,600 *solidi* and 1,600 *capita* raised from other taxes.[941] With around 120 provinces in the empire, many of them operating on a similar scale, the total tax yield must have been huge.

It was not only neighboring provinces that could aid in compensating for tax shortages. The Roman state could muster a large force of *navicularii* and other transport liturgists to transport grain across the Roman-dominated Mediterranean or along the large network of Roman-built roads.[942] That such long-distance transport of goods was common practice is made clear by the laws concerning *navicularii* as well as the institution of *pastus primipili*, which was explicitly intended to transport supplies between provinces.[943] We can see examples of this transport in action by the shipment of grain during major campaigns. Julian had grain from Egypt brought into Antioch, and the

---

[939] Amm. Marc. 14.10.3, 25.1.10, 25.2, 25.7.4, 25.8.1, 25.8.6; Joh. Nik. 102.10.
[940] *NVal*. 13.1. Valentinian III remitted an eighth of their taxes as a result of the Vandal invasion leaving them owing 1,200 *annonae militares*. This payment was to be made in coin, but later in the Novel (13.1.3) he lists the proper commutation for one *annona* as four *solidi*. Later still (13.1.4) he fixes the purchasing power of one solidi as providing 40 *modii* of wheat, 270 pounds of meat, or 200 *sextarii* of wine for each *solidus*. Thus, the 38,400 *solidi* raised in tax was enough to buy 24,576,000 *sextarii* of wheat (13,418,496 liters or 10,346,496 kg), 10,368,000 pounds (3,348,864 kg) of meat, or 7,680,000 *sextarii* (4,193,280 liters) of wine. This was enough to provide 9,726 bread rations, 9, 468 meat, and 7,014 wine, or approximately the same amount as they would be raising if the tax had just been paid in kind.
[941] *NVal*. 13.1.
[942] See pages 136-146.
[943] See pages 111 and 136.

Egyptian provinces supplied the East during the Anastasian War as well.[944] Nowhere is there any indication that this long-distance transport of grain was uncommon. Even the example of Numidia contains evidence for the frequency of large scale transport between provinces. North Africa was not a heavily garrisoned area. There is certainly no reason to assume that there were 9,600 soldiers in Numidia, particularly not after the Vandals had passed through and driven the army out. These supplies must have been destined for elsewhere.

The scale and complexity of the empire is why it is so important that the prefects were able to establish an annual budget. With knowledge of troop concentrations and estimated tax yields the prefects were able to determine the tax rate for individual provinces and regions in a way that distributed the burden among the provinces that were capable of raising it. Even when this ideal situation did not occur (and there are numerous examples of the overtaxation of areas damaged in war and natural disasters) the centralized prefecture was better positioned to redirect the incoming tax revenue to the places where it would be most effective than more local officials would be. If the regular tax indiction did not raise sufficient supplies the prefects could also issue superindictions, allowing the municipal officials to extract more grain from the taxpayers. If even this failed to prove sufficient then forced purchases could be made. The prefects had a wide variety of options that they could take to ensure that the soldiers were supplied.

1.2 Stockpiles

None of this would have served any point of course, if the Roman state had not stored large surpluses in storehouses throughout the empire. Without a sufficient amount of stockpiled supplies to keep the army fed, the slightest delay could cause a shortage. With stockpiles of grain available, the army could simply be fed from the stockpiles as they waited for that year's crop to come in. Delays in supplies reaching the cities did not even have to slow campaigns. Julian began his 358 campaign using only grain that he had

---

944 Amm. Marc. 22.14.1; Ps-Josh. 77 [300].

left over from his winter stores since his incoming shipment was delayed by unseasonably heavy rains.[945]

Substantial supplies were clearly stored in granaries, even in peacetime. The city of Edessa was able to use grain from its regular stockpiles to issue a grain dole to its populace, in addition to a large refugee population, during a famine in 501.[946] Forts outside cities were expected to stockpile a year's worth of supplies so that they could be self-sufficient if cut off by an invading army. There are indications that this was even followed in peacetime, with Abinnaeus' fort in the peaceful Fayyum containing a year's worth of provisions.[947] Many *limitanei* forts were even capable of raising and storing their own stockpiles without the state sending them supplies.[948]

The cities of the empire played a major role in ensuring the effectiveness of the Roman commissariat since they offered relative protection from the destruction of war. Most Roman cities had been fortified during the disorder of the third century and this made them the safest place for any grain.[949] As long as the Romans had sufficient reserves in their granaries they did not have to worry immediately about interference with their supply-raising process.

The safety of the cities was due to the fact that barbarian armies generally demonstrate poor siege skills. As the Gothic leader Fritigern famously said, he "kept peace with walls" and instead preferred to plunder the vulnerable countryside.[950] Barbarian armies could disrupt the gathering and shipment of supplies through the region, but were otherwise powerless to starve the Roman forces out. Thanks to Roman stockpiles, attempts at blockades were more likely to starve the besiegers than the besieged. During invasions, the Germanic tribes had to devote a significant amount of their time to extracting enough resources from the region for them to survive. This can

---

945 Amm. Marc. 17.8.2.
946 Ps-Josh. 2 [267-268].
947 *P.Abinn.* 26.16-20.
948 See pages 152-154.
949 Galliou 1981; Sodini 2007, 314-325. For fortification programs throughout late antiquity see the articles in Lavan 2001, particularly 89-122.
950 "Pa<x> sibi <est> cum parietibus" (Amm. Marc. 31.6.4).

most clearly be seen in the Gothic rebellion of the mid 370s, where the Romans hoped to starve out the large warbands who had actual control of the countryside.[951] Sometimes, in cases such as the suppression of the so called "barbarian conspiracy" in Britain, this time spent extracting supplies led directly to barbarian defeat by Roman forces.[952] It was the belief that the Romans could catch the barbarian army foraging that contributed to the defeat at Adrianople.[953] Unable to take the cities where resources were stored and unable to access the Roman supply system directly, the barbarian groups were at a serious disadvantage inside Roman territory.

The chief exception to the rule of enemies lacking siege skills were the Persians.[954] Persian armies proved repeatedly able to take Roman cities, including even the great Syrian center and supply hub of Antioch on at least two occasions.[955] In addition they proved to be careful planners and on at least one occasion timed their invasion to coincide with the collection of the Roman harvest.[956] Aside from the chaos this sowed, the decision to attack during the harvest also denied the Roman army the use of that year's supplies. The Romans did not have any real way to counter this risk except for ensuring that all the cities of the region were fully stocked in preparation for a siege at all times.

While the Persians were dangerous adversaries, the most dangerous opponents from a supplies standpoint were Roman ones. In addition to the danger of cities falling due to superior Roman siege techniques, civil wars increased the chances that cities would go over to the enemy faction voluntarily. This could have a huge impact on the course of a campaign. Constantius' stockpiles ended up aiding Julian's army instead, since Julian advanced through Constantius' territory while that emperor was still in the East.[957] Civil wars were also capable of disrupting the regular system of supplies as they set up rival chains of command. If the supply officials chose to back the enemy faction,

---

[951] Amm. Marc. 31.8.1.
[952] Amm. Marc. 27.8.7.
[953] Amm. Marc. 31.12.12.
[954] Greatrex 1998, 58-59; Petersen 2013, 360-405.
[955] Proc. *BP* 2.8; Malal. 12.26 [295-297]; Zon. 12.23 [594]; Zos. 1.27.2.
[956] Amm. Marc. 18.5.1, 18.7.
[957] Amm. Marc. 21.8.3.

they could deprive an emperor of the supplies he needed to secure his reign. It is not an accident that one of the few examples of supply failures comes from Valens' campaign against the usurper Procopius. When besieging the city of Chalcedon, Valens found himself bereft of supplies and was forced to abandon the siege.[958] Despite being in the very heart of his empire, just on the other side of the Bosporus from Constantinople, Valens could not support his army and was forced to flee. This sort of failure was inconceivable against a barbarian enemy.

Even in times of civil war there was little hint of soldiers starving. While Valens and Procopius were competing for the same supply chain the battle was ultimately determined by a setpiece battle (aided by well-timed betrayals) rather than through reduction of supplies.[959] There was enough surplus grain in the empire for both armies to live on. This is a testament to the effectiveness of the Roman commissariat.

1.3 Campaign Logistics

Roman campaigns were built around raised supplies and stockpiles. Any planned expedition would benefit from the advance stockpiling undertaken by the Roman commanders. Constantius assembled six million *modii* in the provinces of Raetia and the Cottian Alps in preparation for Julian's invasion.[960] The supply prefects in Edessa prepared enough grain to bake 2.1 million *modii* of *bucellatum* during the first two years of the Anastasian War of 502-506.[961] When departing Antioch for his Persian campaign, Julian wrote to the governor of Cilicia I in Tarsus ordering him to have supplies prepared for his return as he was intending to winter there.[962]

This form of advanced planning was so ubiquitous that it rarely needs to be mentioned in our sources. The most obvious sign of it was the army's tendency to move from city to city to reach its destination. The cities along the army's route would have been notified in advance to prepare food for the army and thus reduce the amount of

---

958 Amm. Marc. 26.8.3.
959 Amm. Marc. 26.9.
960 Jul. *Ep. ad Ath*. 286b.
961 Ps-Josh. 54 [281], 70 [295], 77 [300].
962 Amm. Marc. 23.2.5.

supplies it needed to carry with it. Without such a system in place the army would run out of food well within about a month of departure. This shows that the Romans were conscious of the need to have supplies prepared for their armies in advance and were able to do so.

Stockpiling was also a part of the campaign process. By building up stockpiles in cities within the warzone the Romans could ensure that reliable supplies were available wherever they went. Julian repeatedly rebuilt and stockpiled granaries in forts and cities along the Rhine.[963] These stockpiles would help the inhabitants hold out against siege, but they were also vital for ensuring that there was enough surplus grain to keep the army functioning. It was the grain supplies built up by Julian that helped keep Jovian's retreating army alive.[964]

This level of advance planning meant that Roman armies could rely on having a large quantity of food supplies in the area where they were campaigning. The surpluses maintained by the state left the Roman army with a significant ability to improvise. Not all campaigns would go according to plan, and if the Roman army encountered any setbacks they could always replenish their supplies from stores in other cities. An excess of supplies could also make the campaigns more flexible. Valentinian for example, apparently only selected Savaria as his winter quarters as he was returning from campaign.[965] It was to the imperial advantage to raise more supplies than necessary to ensure reliable supply. In other words, the emperors prized effectiveness over efficiency. The ease with which the armies were able to resupply themselves obscures the constant effort that went into transporting and organizing the logistical system.

While this was enough to reliably supply campaigns conducted within the empire, campaigns outside the empire would not have the option of relying on protected stockpiles. Instead they had to rely on portable stockpiles transported in baggage trains. This placed certain limits on Roman effectiveness. One of the few references to the scale of the supplies brought on campaign comes from Marcellinus *Comes*, who records an

[963] Amm. Marc. 16.11.11, 17.1.11, 18.2.3.
[964] Amm. Marc. 25.8.7.
[965] Amm. Marc. 30.5.14.

army of 15,000 soldiers supplied by 520 wagons (*plaustra*).[966] This would amount to something of the order of 50,000 *modii*, or enough food to keep the army fed for just under a month.[967] When the amount of grain consumed by the pack animals themselves is taken into account, the amount shrinks dramatically.[968] These supplies could be supplemented by the twenty days' supplies that Roman soldiers were trained to carry on their backs. That, in addition to the feeding of pack animals via grazing, could have expanded the campaign time of this expedition to perhaps a month and a half at the most. Any campaigning beyond this time would have required the supplementation of their supplies by living off the land.

There is no way to know whether this campaign was atypical of Roman baggage trains. Most campaigns by this period took place within the empire and could rely more heavily on prearranged stockpiles. Our few detailed accounts of campaigns beyond the empire tend to support the idea that this was a normal proportion. Valentinian returned from his Quadi campaigns in 375 due to a combination of supply problems and the lateness of the season.[969] He had begun his campaign in September and returned sometime in late October or early November.[970] Despite having had the whole summer to gather supplies, he was not able to maintain his campaign for more than two months.

If this is an example of the limitations of Roman logistics it is also a sign of their strength. The army was not reduced to starvation and, even if the objectives were not met, it did not lead them to defeat. It placed a limit on what these emperors could achieve, but it also left them informed enough that they did not suffer a disaster as a result of it. Rather than rush into the early Spring campaign that he had desired, Valentinian spent three months gathering supplies so that he would have enough when he did advance.[971] Effective supply of the army was more important than other military considerations.

---

[966] Marc. com. s.a. 499.1.

[967] Bachrach 1993, 717. 520 wagons would carry 338,000 kg of weight, assuming the numbers given earlier.

[968] Haldon 1999a, 287-292.

[969] Amm. Marc. 30.6.2.

[970] Valentinian remained at Carnuntum during the three summer months gathering supplies (Amm. Marc. 30.5.11), and returned sometime shortly before his death on 17 November (30.6.6).

[971] Amm. Marc. 30.3.3.

In general, the limitations of the supply system do not show up in our sources because supplies were monitored closely enough to prevent disaster and because supply considerations were such a regular part of Roman campaigning. Valentinian's supply considerations are listed as only one of the reasons for his return to Roman territory. A similarly casual way of suggesting a supply shortage appears in Ammianus' account of Theodosius the Elder's campaign against Firmus, where Theodosius was driven back by the strength of Firmus' army but returned almost immediately with copious provisions.[972] This sounds very much as if he suffered a supply shortage that he then rectified by restocking his baggage train out of one of his stockpiles, perhaps the one that he had recently set up in Lamfoctum.[973]

1.4 Julian's Persian Campaign

Any discussion of campaign logistics in late antiquity must confront the problem of Julian's Persian Campaign. This campaign is everything that the previous discussion has made clear that Roman campaigns were generally not. It was a military disaster precisely because of the failure of the Roman logistical system. The Roman army never lost a battle, but once they crossed the Tigris they quickly ran out of food and were forced into a humiliating withdrawal and a treaty ceding control of the region to the Persians. A more obvious cautionary tale could not be asked for.

While this was a high-profile failure the very amazement with which it struck contemporary writers says much about how uncommon this situation was. Ammianus, an otherwise devoted partisan of Julian, declares the terms of their withdrawal to be necessary but shameful.[974] The pride of a participant blunting his normally keen sense of reality, he blamed Jovian for his failure to gain better terms despite the hopeless situation.[975] As the Romans saw it no previous emperors had ever abandoned territory even after serious reverses.[976]

---

[972] Amm. Marc. 29.5.38.
[973] Amm. Marc. 29.5.13.
[974] Amm. Marc. 25.7.
[975] Amm. Marc. 25.9.8.
[976] Amm. Marc. 25.9.9; Zos. 3.32.

While this failure was due to a shortage of supplies, it represents the personal failings of its commander rather than a problem with Roman logistical methods. Julian, it is true, was often exemplary in his supply management. Ammianus' account of his campaigns always includes Julian's demand that the defeated tribes provide supplies or an explanation of why this demand would not be practical.[977] Julian's reworking of the tax indictions to make them less burdensome on the populace while still keeping the men adequately fed is justly praised as an example of dedicated and enlightened rulership.[978] A similar example is his importation of grain from Britain and the repeated stockpiling in fortresses rebuilt or recaptured from the enemy.[979] All of these mark intelligent decisions to address the supply situation.

Yet supply problems also dogged him throughout his brief career in Gaul. In his first year, Julian failed to meet up with Barbatio as agreed and as a result that general burned those supplies he did not use.[980] In Julian's second year of campaigning he had difficulty getting supplies brought up from Aquitania until July, only managing to leave on schedule by taking rations out of his winter supplies.[981] Ammianus absolves him of blame for both of these cases, and it may well have been beyond his control given that supply problems were endemic in Gaul before his arrival, yet when viewed in light of his later record it suggests a troubling complacency with his supplies.

A much clearer example of recklessness with regard to supplies can be seen in his campaign of 357. When supplies were late to arrive, Julian had his men carry twenty days' rations from the winter stores on their backs and marched out intending to live off the barbarians' land.[982] When he reached enemy territory he found to his surprise that the crops were still green and could not be used to supply his army. As a result their supplies ran out and the soldiers started insulting Julian openly.[983] Julian survived this miscalculation by quickly making peace with the Alamannic king Suamarius, who then

---

[977] Amm. Marc. 25.9.8.
[978] Amm. Marc. 25.4.15; Matthew 2007, 89-90; Tougher 2007, 33-36.
[979] Amm. Marc. 16.11.11, 17.1.11, 18.2.3.; Iul. *Ep. ad Ath*. 279D-280B.
[980] Amm. Marc. 16.11.12.
[981] Amm. Marc. 17.8.
[982] Amm. Marc. 17.8.2, 17.9.2.
[983] Amm. Marc. 17.9.3-5.

provided the Roman army with the supplies it needed. Presumably this could be augmented by the grain arriving late from within Gaul. Neither of these options were to be available in Persia.

From the start of his Persian campaign Julian was keen to gather his supplies from his enemies. This is indeed a sentiment regarded as noble by Ammianus, who gives to the elder Theodosius the comment that "the harvests and settlements of the enemy are the granaries for our brave soldiers".[984] Ammianus' account of the march down the Euphrates is a triumphant list of all the cities they conquered and supplies they seized.[985] There is barely even any indication that they used the supply fleet of 1,100 ships, which should have been enough on their own to feed his army with ease.[986] Indeed, it is only once this fleet had been burned that supply problems begin to appear in the narrative.

The most curious thing about the disaster faced by the army is how quickly Julian ran out of supplies once he burned his ships. With a fleet full of supplies and after taking so many supplies from the land he passed through Julian should have had no shortage of supplies to distribute among his soldiers. Roman infantrymen were trained to carry twenty days' rations with them, a procedure Julian had used before, and yet the first mention of hunger appears only five days after the army left the city.[987] Even if the heat limited the carrying capacity of the men they should have been able to carry more than five days' worth of rations on the backs of their pack animals.

Zosimus blames the exhausting journey for wearing out the pack animals and there may be some truth to this.[988] The campaign had lasted two months by this point and most of that time had been spent in exhausting sieges. Yet such difficulties had been overcome by previous armies campaigning in the region, and with the fleet travelling alongside there was no need to keep the pack animals heavily burdened. A comment by

---

[984] "Messes et condita hostium virtutis nostrorum horrea esse" (Amm. Marc. 29.5.10). The general giving the speech was the elder Theodosius, but the sentiment could easily be applied to Julian's campaigns.
[985] Vannesse 2012, 644-645.
[986] Amm. Marc. 23.3.9; Zon. 13.13 [66]; Zos. 3.13.2.
[987] Amm. Marc. 25.1.10.
[988] Zos. 3.28.2.

Vegetius may be pertinent here: that a supply shortage affects large armies sooner.[989] Julian's army in Persia was much larger than the one he had fought with in Gaul. It is the largest reliably recorded for the entire century.[990] If the officials running it were accustomed to supplying much smaller armies they may have found themselves unprepared for one of this size. Julian's prefect Salutius certainly did not have experience with an army of this size since he had been brought with Julian from Gaul, where Julian's armies had numbered in the low tens of thousands.[991]

Either way, Julian's decision to advance east of the Tigris was a reckless one. He cannot have been unaware of the shortage of carrying capacity and was attempting to conduct the same sort of campaign that he had done successfully in Gaul. By treating the well-organized Persian state as if it was the same as the Alamanni tribes he was accustomed to, Julian severely overestimated the Roman army's ability to survive off the land. The Persian scorched earth policy (also a standard Roman one as can be seen from Ammianus' account of Shapur's earlier invasion) ensured that the Roman army could extract no supplies from the region without taking forts or cities.[992] Julian's failure to take Ctesiphon must also weigh heavily against him, since this city could have served as a supply base or at least have improved his foodstocks.

The failings of Julian's Persian campaign were the failings of the commander more than the failings of Rome's logistical system. Julian was willing to take chances in pursuit of big goals that other emperors simply were not. When these risks succeeded, he could be enormously successful, as he was in Gaul, but when they failed the consequences could be dire.

---

[989] Veg. *Mil*. 3.1.
[990] Zos. 3.13.1. See page 26.
[991] *PLRE* 1.814-817 (Secundus 3). If Salutius was responsible for the supply failures, the army did not hold it against him. He was the first choice of the generals to succeed Julian after the emperor's death (Amm. Marc. 25.5.3).
[992] Amm. Marc. 18.7.3.

1.5 Systems Collapse (The Fifth-Century West)

The West Roman supply system did collapse, along with the state itself, during the fifth century. As such it is worth examining this failure and whether it was a cause or a result of this broader collapse. How severe was the failure of the Roman commissariat? Our evidence for the period is poor but it is notable even so that there were no references to military disasters caused by catastrophic supply failures. The clearest references to supply failures are all civil in nature: starvation in Rome from Heraclianus cutting off the African grain supply, the further shortages caused by the Vandal conquest, news of famines reaching Rome in the letters of Sidonius, and the like.[993] Even such instances were exceptions to the rule and the emperor managed to raise and send 600,000 *modii* of grain to the Gothic king Wallia.[994] Even though the commissariat was better positioned to ameliorate such issues, it was hardly immune to these strains. If the absence of actual campaigns ruined by starvation is not an accident of our surviving source tradition it only indicates that the commissariat was still able to keep accurate accounts of supply needs and abilities. The limitations that repeated disasters imposed on the commissariat were taken into account before campaigns were conducted. Our sources were rarely privy to high-level military discussions and for the most part the commisssariat's struggle was one that was carried out in silence.

We do have some indications that the military supply system in the west was under pressure. The clearest example of supply lines failing comes from Eugippius. In his life of Saint Severinus, he describes the fortunes of a garrison of *limitanei* in Noricum in the 450s as they slowly lose contact with the central authorities and are eventually forced to send out a party to retrieve their pay.[995] These *limitanei* were apparently able to survive on their own locally-sourced supplies but still required coin from the government to pay for it. With their supply lines to the central authorities severed, the garrison was given no choice but to disband. The other example comes from the very end of the Western Empire. When Romulus Augustulus was overthrown, one of the major demands was that

---

993 Sid. Apoll. *Ep*. 1.10.2.
994 Olymp. Fr. 30.
995 Eug. *Vit. Sev*. 4.1-4, 4.20.

the soldiers should be given one third of the land in Italy.[996] The exact nature of this demand is unclear but it has been suggested that this demand was not for ownership of the land but for the rights to the produce from it.[997] It would not be unreasonable to infer from this that the issuance of army supplies had become inconsistent.

The problems that led to these failures and many others which have not been recorded were manifold, but the chief reason was that the necessary preconditions for its operation could no longer be relied upon. The two key pillars of the Roman commissariat were the ability to raise taxes and the security of its supplies once collected. It was a major blow to the Roman commissariat of the fifth century that they could no longer count on their cities to be secure supply hubs. The Gothic sack of Rome in 410 is probably the most famous successful barbarian siege, but there are many other. Examples. Mainz, Worms, Speyer, Saverne, Brumat, and Strasburg, fell into Alamanni hands during Constantius' reign.[998] Valence, Narbonne, and Toulouse, fell to the Goths in 411, Trier fell to the Franks in 413 (and maybe again in 456), and the Vandals took Hippo Regius after a two year siege in 432 and Carthage in 439.[999] They sacked Rome itself in 455.[1000] The Ostrogoths under first Theoderic and then Totila also proved effective at taking cities, complicating Roman efforts to control Italy.[1001]

The Huns demonstrated perhaps the most impressive ability to storm cities. In the 440s they displayed an unprecedented skill at capturing fortified cities in a way that ruined Roman defensive plans. The cities of Viminacium, Naissus, Singidunum, Sirmium, Ratiaria, Aquileia, and Milan all fell to the Huns.[1002] As a result, Roman forces countering the Huns were forced to conduct their campaigns as if they were in hostile territory, and the bulky and slow-moving baggage train was unlikely to help them against such a mobile enemy as the Huns.

---

996 Proc. *BG* 5.1.8.
997 Goffart 1980, 58-102. For an overview of the debate about Goffart's views, see Lee 2013, 128-132.
998 Amm. Marc. 16.2.12.
999 Merrills & Miles 2010, 54-61; Petersen 2013, 461-583; Pohl 1988, 70-76.
1000 Proc. *BV* 3.5.1.
1001 Petersen 2013, 504-547.
1002 Petersen 2013, 465-471.

The new insecurity of cities was due both to increased siege abilities from Rome's enemies (who could now count large numbers of former Roman citizens among their soldiers) and an increasing inability by the Romans to raise the sieges. This latter was a particularly important difficulty since, once cut off from resupply, the cities could only defend themselves for as long as their food supply lasted. The siege of Rome that ended in 410 had lasted on and off for two years with no Roman relief force preventing it.[1003] As long as their own food supplies held out, barbarian groups held the advantage over Romans. Cities that could no longer be relied upon as secure supply bases became liabilities.

Even without taking cities, barbarian groups occupying Roman territory interfered with the operation of supply lines. The Goths made an effort to impede Roman supply convoys prior to the battle of Adrianople and prevented tax collection throughout Thrace.[1004] Alaric's armed presence in Greece and Italy would also have prevented resupply. As shown by the fact that he targeted Portus and had to be pleaded with to restore the grain supply to Rome, Alaric paid attention to matters of supply.[1005] Most troublingly for the Romans were the Vandals, whose navy was sufficiently powerful to leave Rome's control of the sea challenged for the first time in centuries.[1006]

The largest problem that the commissariat faced however, was not the temporary loss of a few cities or supply lines but the permanent loss of entire provinces and the tax revenue that came from them. Britain was formally abandoned in 410, large parts of Spain and Gaul were lost over the following decade, and many other territories fell in bits and pieces as the century wore on. The most devastating loss of all was the fall of Africa to the Vandals. From the tax remission given to the inhabitants of Numidia and Mauretania Sitifensis after years of Vandal occupancy, it can be calculated that the two provinces combined had contributed 106,200 *solidi* to the state annually.[1007] This was

[1003] Kulikowski 2007, 1-10, 174-77; Wolfram 1988, 154-59.
[1004] Amm. Marc. 31.12.2
[1005] Philost. *HE* 12.3; Zos. 5.39.
[1006] Merrills & Miles 2011, 1.
[1007] *NVal*. 13 (445).

enough revenue to feed 26,550 soldiers.[1008] If the whole of Proconsularis and Byzacena had been considered, the provinces lost must have been worth more than double that.

The burden of this loss placed a greater strain on the remaining taxation system. If the army was not to be shrunk, taxes needed to be increased and shortfalls could no longer be made up for with grain raised from other provinces. This meant that there was now less room for error within the commissariat. Despite the greater need and increased brittleness, the number of surviving tax remissions actually increases starting early in the fifth century.[1009] Even in provinces where the tax debts were not forgiven, we can see signs of difficulty. Valentinian III had to recall all the compulsors and opinators in Africa because they were disrupting the regular system of taxation, although he threatens to send them back if he does not receive what is due.[1010] While the evidence for exactly what the difficulties raising supplies were is missing, it is evident that chaos in the center was having a deleterious effect on the administration of the provinces.

One of the largest problems to arise out of the loss of this land is that it was not merely lost to Roman tax-collectors but was acquired by their enemies. The Vandals continued to operate the old Roman system of taxation (with modifications) for their personal benefit, as did the Visigoths and Ostrogoths.[1011] Cassiodorus' account of the praetorian prefecture under the Ostrogoths shows that it was very similar to the one operating under the empire, with most of the same taxes and obligations (and difficulties) still present.[1012] In many ways, the Roman system of supply did not fail, it simply served new masters.

What this meant was that the Romans could no longer rely on being able to outperform their opponents in the organization of their supply line. The various barbarian groups were now capable of organization that previously only the Romans had been able to access. Wars against external enemies were now essentially taking on aspects of civil wars as barbarian groups started to gain access to the same resources as usurpers. One

---

[1008] At a commutation rate of four solidi per *annona* (*NVal*. 13.3 [445]).
[1009] See footnote 1092.
[1010] *CTh*. 11.1.34 (429).
[1011] Jones, *LRE* 253-262.
[1012] Cassiodorus' letters are full of references to the supply system (as might be expected from a praetorian prefect) but notable examples include *Var*. 2.24.4 and 12.8.3.

result of this was the increased barbarian success at sieges mentioned earlier. With an advanced supply system behind them, barbarian groups were able to press their sieges for long enough to starve out the Romans within. In general, the Germanic control of once-Roman land acted to intensify the difficulties that Rome faced. The loss of cities and provinces placed an administrative strain on the commissariat, but the barbarian acquisition of Roman territory removed Rome's administrative advantage and increased the threats posed by Rome's enemies. All of these problems were interconnected.

These were all serious difficulties faced by the commissariat, but what practical impact this had on the performance of the Roman army in the final years of the Western Empire is difficult to say. There are few records of the composition and distribution of troops in the mid and late fifth century and even fewer dealing with supply. It is difficult to avoid the conclusion that the system of supply was largely improvised and reliant on requisition from local sources. One of our few accounts of late Western armies describes the force Majorian led into Hispania, which is described as units of barbarian *foederati* rather than a homogenous force.[1013] With the army looking so haphazard it is likely that the supply arrangements were disordered as well. While some of the supplies undoubtedly came from the regular taxation system (Majorian continued to issue tax legislation so some of it must have been working) a major part of his funding seems to have come from a special levy on the residents of Gaul.[1014]

We are not told how the Romans dealt with these changed circumstances, but their most rational alternatives would have been either to disperse the supplies raised among multiple settlements so that the loss of one would not be so great or else to raise the supplies further from the frontline. Both options would place tighter constraints on a campaigning army, either by slowing their pace of march or requiring a more narrow itinerary. One way to avoid this would be to place a greater reliance on plunder, which would have reduced the strain on traditional methods. This would have been especially

[1013] Sid Apoll. *Pan*. 5.474-479. For more on the composition of Majorian's army see MacGeorge 2002, 205-206.
[1014] *NMaj*. 2 (458); Sid Apoll. *Pan*. 5.446-448.

practical if, as seems likely, the size of the armies in this period were significantly smaller than in previous periods.

As for the *limitanei*, if they had not already been entirely reliant on their own locally-produced supplies they soon became so. Eugippius' account of the *limitanei* in Raetia and Noricum in the 450s shows that they did not expect supplies from the distant state authorities and required only coin to pay for supplies already present.[1015] The complex methods of shipment and supply had been replaced with a much simpler albeit irregular disbursement of cash. This was likely the best that the state could do for an insecure province. Eugippius describes a garrison in the final days of its existence as the anticipated pay never arrives and the party sent out to get it was killed by barbarians. As the supply line connecting them to the imperial authorities withered away the garrison disbanded. This must have been the fate of many an undocumented unit.

The decline of Western institutions was due to many causes, but the failure of the supply system appears to be more often a result of these failures than a cause of them. While the commissariat may not have created the problems, its failure certainly intensified them. The structural issues facing the Roman state were interdependent, which means that a failure in one area caused failures in another. A loss in military control over a region meant a decreased grain supply which in turn increased the stresses on the taxation system in the surviving provinces. As the case of Severinus of Noricum shows us, there were times when the failure of supply lines led directly to the collapse of military units, but for the field army it seems that the supply network continued to function in some manner or other until after the collapse of the Western Empire.

The only times when supply failures caused the failure of military campaigns was when they were caused by some major military setback. The Vandal Campaign of 468 for example, was required to turn back once the Vandal navy burned the Roman fleet.[1016] A similar failure had already destroyed Majorian's chances.[1017] This can hardly be seen as a failure of the commissariat. The supplies were raised, delivered, and were being

---

[1015] Eug. *Vit. Sev*. 4.1-4, 4.20.
[1016] Proc. *BV* 3.6.5.
[1017] *Chron. Gall*. 511, 634; Hyd. Lem. 200, *s.a.* 460.

transported alongside the army until military failures lost them. What was most destructive to the commissariat, and the state more generally, was the loss of taxable territory. The Roman supply network was founded on the idea that taxes could be raised from a wide area and any supplies that could not be purchased locally could be sent in from another province. Once this ability became less secure it increased the pressures on provinces which did not have the resources to support a standing army.

Inasmuch as the commissariat was responsible for Rome's fall, it was the ability of enemy forces to commandeer the supplies raised for their own uses that most adversely impacted Rome's military effectiveness. Civil wars had always come with this danger, as Julian's seizing of Constantius' grain shows, but a major innovation of the late fourth and fifth century was that barbarian enemies could now also take advantage of these supplies. Once the land and the local curial officials who lived on it fell under the control of an opposing power it was easy for them to redirect the commissariat's operation for their own purposes. The system was simply too decentralized to lock out rival power groups. Indeed, it needed to be so in order to function. In a very real sense the commissariat did not fail, it simply passed onto new masters. The Franks, Goths, and Vandals all continued to use the same system, albeit with personalized modifications.

1.6 Systems Evolution (The Sixth to Seventh-Century East)

The East also struggled during the fifth century and while the outcome was very different from that of the Western Empire there are enough similarities to show that the problems represented broader trends rather than being due solely to the dissolution of the empire. Like the West they lost much of their land to various barbarian groups. The Huns were able to force them to withdraw from all territory that was less than five days' march south of the lower Danube and the Ostrogoths were allowed to keep land in Pannonia which remained under their own kings.[1018] What allowed the Eastern Romans to survive was the fact that these territorial losses were not permanent. First the Visigoths and then the Ostrogoths relocated into the Western Empire. The Huns moved west as well, but

[1018] Jordanes, *Getica* 270; Prisc. fr. 11.1.9-10. See also Gračanin 2014 and Maenchen-Helfen 1973, 124.

even more importantly, the death of Attila saw the momentarily-mighty empire dissolve into its component groups. The demilitarized zone five days' south of the Danube cannot have been in place for more than five years. At the dawn of the sixth century, the Eastern Empire was ruling over most of the same lands that it had ruled in the fourth.

Even more importantly, while they lost land around the margins, most of their core territory (including their wealthiest provinces) remained peaceful and prosperous. Egypt in particular was able to remain the breadbasket of the East in a way that Africa could not be for the West. Constantinople's walls kept them safe from barbarian assault and helped protect the Asian provinces from invasion. Persia was the only power to the east of the Bosporus that posed a threat to Roman territory and the fifth century was an unusually quiet time on this frontier as the Sassanians struggled with eastern nomads and their own internal struggles. It was only the narrow band of European provinces which suffered from barbarian conquests. This relative security gave the East the luxury of time which the West did not have. Because of this it is possible to see how they dealt with the problems that the West never had the opportunity to solve.

The East's method of handling the insecurity of cities varied depending on the region. The Persian frontier had suffered from this problem since the third century, and had managed to compensate for this problem by making use of multiple supply bases. Mesopotamia was a highly urbanized region with many cities of considerable size and defensibility. This meant that, unlike the less urbanized West, the Eastern Romans had many choices when it came to choosing a supply base. Amida, Dara, Edessa, Martyropolis, Monocarton, and Hierapolis were all used as supply bases during Mesopotamian campaigns. When Amida fell in the Anastasian War of 502-506, the city of Edessa became the chief supply hub for the region. When this placed too much stress on the city Hierapolis assumed supply duties. They were also able to send grain up from Alexandria via Antioch.[1019] When Dara fell in 573, the base of operations shifted to Monocarton.[1020] It was only when conquests started taking large portions of the empire in

[1019] See pages 175-180.
[1020] Theoph. Simoc. 3.1.3.

the early seventh century, like the entirety of Syria and Egypt, that the Romans had no solution.

This reliance on multiple cities was not an option for the northern provinces. Thrace and Moesia had fewer cities and were insecure, poor, and highly militarized. What cities they had were vulnerable to barbarian raids due to their less extensive fortifications. The solution adopted for these provinces was to spread the supplies out among smaller forts. These forts could not hold as much grain as a city but their loss was also less significant. Forts such as Dichin, fifty kilometers south of the Danube, seem to have been used by the military to collect and protect supplies from the local countryside. They may have been manned by Gothic *foederati*, which would represent a major innovation from earlier practices. [1021] There is much we do not know about the supply system in Thrace. The unique innovation of the sixth century was the creation of the *quaestor exercitus* to import grain from Caria and the Cyclades through Odessus and up the Danube.[1022] This was an imperfect solution, but given the limited options available it was probably the best that could be done.

Without the cloud of repeated military disasters that obscure our view of the West, we are able to see more of the local administrative issues that were endangering the supply-raising process. The *Theodosian Code* is full of laws addressing tax collection issues but the information it provides is difficult to quantify.[1023] Are the difficulties recorded there endemic or do they reflect extraordinary occurrences? One unquestionable sign that there were widescale difficulties in the tax collection process comes from the records of tax remissions. Every tax remission is an admission of failure since the emperor is recognizing that his administration is unable to collect the taxes due. Some of these failures were undoubtedly due to circumstances beyond anyone's control, such as famines or barbarian raids, but many, if not most, can be attributed to administrative problems. We have only two examples of tax remissions from the fourth century while

[1021] See page 127.
[1022] See chapter four.
[1023] See pages 254-272 for some examples.

there are no fewer than nineteen for the fifth.[1024] It would be dangerous to infer too much from this since the *Theodosian Code* is not a comprehensive account of such records and it is undoubtedly missing examples (we have none from before Julian yet Ammianus is clear that he was familiar enough with the process to mistrust the motives for requesting them), but the idea that wide-scale tax remissions increased during the fifth century seems to be supported by Anastasius' reforms at the end of it.[1025] His interference with and replacement of local curial positions shows that he felt the system was not working as reliably as it should be.

The imperial solution to this failure is indicative of the emperors' general approach to distant administrative problems throughout the century. In what has been called "decentralized centralization", the emperors expanded the power of regional power centers at the expense of more local rural and civic authorities.[1026] It is as part of this larger approach that we must see the creation of the pagarchs and *vindices*. The pagarchs (as the better recorded and more common position) were placed outside the traditional bounds of authority (only an imperial command could remove a pagarch) and provided them with greater authority than the exactors they replaced (pagarchs could call on army units).[1027]

The two positions were very different in their respective backgrounds and selection, yet both address the same issue: reliability. *Vindices*, having bid for their offices, would naturally be more vigilant in extracting taxes and could be relied on for prompt payment, if undoubtedly at the cost of greater potential for corruption. The pagarchs, as local magnates, might seem to have the same dangerous impulses as exactors, but their more permanent nature meant that it was now easier to apportion

---

[1024] *CTh*. 11.28.1 (363), 11.28.2 (395), 11.28.3 (401), 11.28.4 (408), 11.28.5 (409), 11.28.6 (410), 11.28.7 (412), 11.28.8 (414), 11.28.9 (414), 11.28.10 (415), 11.28.12 (418), 11.28.13 (422), 11.28.14 (423), 11.28.16 (433), 11.28.17 (436); *NVal*. 1.1 (438), 1.2 (440/441), 1.3 (450), 13 (445); *NMarc*. 2 (450); *NMaj*. 2 (458). It is also worth noting that twelve of these tax remissions apply solely to the western provinces while only three applied exclusively to the East, reflecting well the deteriorating nature of the Western Empire.

[1025] Amm. Marc. 16.5.15.

[1026] In an unpublished paper presented by Alexander Sarantis at the conference on Warfare and Food-Supply in the Late Roman Empire in Ghent, 21 April 2017

[1027] Imperial appointment: *JEdict*. 13.25 (539). For more details on the extent of the pagarch's increased authority see Liebeschuetz 1973, 38 n. 7.

blame should anything go wrong in the tax collection process. It was no longer possible to attribute the problem to one's predecessor whenever there was trouble raising taxes. The emperors could rely on supplies being consistent since their appointees could be relied on to prioritize imperial needs over local problems. There was no danger of interference from higher provincial officials.

Both pagarchs and *vindices* mark an attempt to bring local issues more firmly under a centralized authority, but the office of pagarch in particular represents a significant change to the treatment of local authorities. While regional differences had always been significant, the imperial goal had always been the promotion of communal organizations among the local elites who could share the burdens amongst themselves. The pagarchs were a shift to an increase in the power of individual local elites at the expense of other elites. This change was seen as disastrous for the curials, who our sources, with only mild levels of exaggeration, could describe as driven into extinction during this period.[1028] The laws make clear that susceptors and other lower-ranking tax collection officials continued to perform the same duties as before, yet now they could never advance to authority over the entire nome.[1029] If curials frequently avoided these duties before they must have had greater reason to do so now.[1030]

The promotion of a semipermanent official solved the emperors' immediate problems by making the figures responsible for taxation more accountable, but it did so at the cost of increased local autonomy and potentially uncontrollable power bases. The office of pagarch could be held for many years at a time and, as can be seen in the Apion family, could be passed down from generation to generation.[1031] The Apiones were able to use the office and their vast estates to solidify their hold over the region. This was

---

[1028] Evag. 3.42 [144]; Lydus, *Mag*. 3.49; Malal. 16.12 [400]. See page 168.
[1029] See page 169.
[1030] Whittow 1990, 3-29, views the dissolving of the *curiae* as essentially unimportant, the "transitory history of institutions [which is] less important than society". Whittow regards the sixth century from the viewpoint of the middle Byzantine period and disagrees with the value judgements often placed on a city-based society in preference to a rural one. Whether or not this is true from an individual perspective, from the state's viewpoint the consequences of civic disengagement was an increasing difficulty in enforcing their authority.
[1031] For prosopographical accounts of the Apion family see Hickey 2012, 8-21, Sarris 2006, 17-24.

symptomatic of the diminishing control that imperial authorities had over large landowners.[1032]

While there is no indication that the Apiones undermined imperial authority, there is no doubt that there were few authorities in the region who could restrain them if they had gotten out of hand. Other pagarchs did not share their self-restraint. A papyrological archive from Aphrodito describes the town's struggles with powerful local magnates, most notably the pagarch Julian. The town had the right of *autopragia* but Julian attempted to bully them into accepting his authority.[1033] He even went so far as to send soldiers into the village to force payment of marked up taxes, at which point they were involved in rapes and even burned part of the village down.[1034] This does not present an attractive view of efficient sixth-century tax collection.

The supply system of the sixth century was more irregular and bound to regional variations than the one that came before it. This gave it greater flexibility at the expense of decreased central control. This centralization of power upon only a few wealthy families was potentially unstable. A rogue or incompetent pagarch could cause substantially more difficulties in the time it took for the emperor to hear of his actions and remove him than an exactor could have. More significantly, by divorcing the head of the municipal taxation system from the career path of curials the emperors decreased the amount of experience held by those in charge. If there was a prerequisite for appointment to pagarch it has not been recorded in our sources.

Under the same banner of "decentralized centralization" come the two other supply official innovations of the fifth and sixth century: the supply prefects and the *quaestor exercitus*. The supply prefects took a similar approach to the pagarchs and *vindices* in that the emperors created a new centrally-appointed official and sent him to the region where there were supply difficulties. The position itself was completely novel and appointment and removal ultimately fell to the emperor. What made the supply prefects more useful as an adaptation of the system is that they were filling a role that had

---

[1032] Sarris 2006, 149-176.
[1033] *P.Cairo Masp*. 1.67002, 1.67060, 111.67283. See also page 101.
[1034] *P.Lond*. 5.1674. MacCoull 1988, 47-51.

not initially been needed. The supply prefects' role had originally been handled by the prefects.[1035] With prefects no longer going on campaign there was no supply official with the unquestionable level of authority needed to ensure large armies' supply. The position may have been novel but the role was not. The greatest danger to arise out of the position of supply prefect was the potential for confusion that it engendered by placing two prefects within the same prefecture. How they dealt with this difficulty is never expounded in our sources. In general, the supply prefects proved good at papering over the cracks in the system, although they were not alone a cure.

The *quaestores exercitus* on the other hand, were a response to a unique emergency situation in a specific regional context. The *quaestores* were essentially praetorian prefects with military authority and an unusual prefecture. Like the supply prefects, the removal of many regular prefectural duties was expected to enable them to perform their supply responsibilities more effectively.[1036] The chief problem with the quaestor is that it did not address the underlying issues in Thrace and Moesia. The provinces continued to suffer from repeated raids and remained poor and insecure. The importation of grain from outside the provinces would have alleviated the tax burden but did little else to make the provinces sustainable. Indeed, the *quaestura* was designed so that it could function even when part of the provinces were overrun. It represented a bandage rather than a permanent cure.

In general, the supply system in use in the sixth and seventh century seems more composed of *ad hoc* positions and subject to regional differences than it had previously. The essence of these changes was that consistency was traded for reliability. Theoretical uniformity was no longer as important as practicality. It is hard to argue against the benefits of this from an immediate point of view, but the variations in regional supply methods can only have greatly increased the confusion for the supply officials who had to deal with the system in different regions. Fortunately, the new position of supply prefect was ideally designed to manage this and several of these officials were chosen specifically because of their familiarity with the campaign region. Because of this

[1035] See pages 169-174.
[1036] See pages 196-205.

decrease in consistency it is more difficult to make generalizations about the sixth and seventh century commissariat. Their quality would have varied greatly depending on their location and the officials in charge of the supply. The demands of Thrace and Moesia for example were far different from those of Egypt.

While the supply system generally remained capable of handling the needs of the army, the sixth century sees more examples of supply difficulties than preceding ones. Procopius describes soldiers being near mutiny due to lack of food and suggests that Peter Barsynes was unpopular as prefect due to delays in pay.[1037] Roman forces in Beth Arabaye in 584 had a severe enough water shortage that their captives and then troops died of thirst.[1038] Roman forces north of the Danube in 594 were even reported to have run out of water and been forced to drink wine, which, if true, demonstrates that it was not the Roman ability to transport supplies that had failed but their planning and raising of supplies.[1039] We also see examples of soldiers in transit to their units running short of supplies and having to be supplied by the local patriarch.[1040] Mutinies in general were more common in the sixth century, mostly due to delays in pay. None of these examples show the system under existential strain in the way that Western supply failures did. Instead, they seem to represent recurring miscalculations and undersupply of forces. This was likely a consequence of the increasingly nonhomogeneous commissariat and the administrative difficulties that came with it.

The costs of maintaining and supplying the army also grew to become a much greater struggle. Maurice's money-saving policies are an excellent example of this. His stated goal was to save money spent on supplies by wintering on the opposite bank of the Danube where the army would not have to pay for resources taken.[1041] Indeed, all of Justinian's successors were to suffer from budgetary imbalances. There are multiple possible ways to explain the cash shortage suffered by late sixth-century emperors. Population decline from the plague may have been a contributing factor, as might the

---

[1037] Proc. *BG* 7.40.39.
[1038] Theoph. Simok. 1.13.9-12.
[1039] Theoph. Simok. 7.5.6-9.
[1040] Evag. 6.11.
[1041] Theoph. Simoc. 8.6.2.

costs of reconquering the West or a general move away from cities.[1042] It may simply have been the case that the empire had too many borders to maintain with only the resources of half the empire. One element which does not seem to have been a factor is the effectiveness of the taxation system. It is clear that taxation was able to reach even the poorest farmers.

The situation of the commissariat by the time the East was to face its own existential crisis in the seventh century is harder to assess. Was Heraclius still relying on the same traditional methods of supply? In some ways it seems certain he was. The fact that supply prefects continue to exist into the ninth century (and had even gained powers) shows that they must have been used by Heraclius and his successors. Since his regular prefect remained in Constantinople while he was on campaign it is almost certain that he was using a supply prefect during his Persian campaigns. Similarly, the survival of officials such as the pagarch and various curial posts in the period after the Arab Conquest shows that they must have continued to exist. Yet with only a few provinces genuinely under Roman authority and with all of them damaged or occupied by Persians the continuance of the commissariat does not seem enough to explain how he was able to keep his army alive. For 610-623 he probably relied heavily on grain from Africa, one of the few unthreatened and prosperous regions and an area where he had strong family ties, including in his first years the support of his father the exarch.[1043] His survival between 625 and 627 on the other hand, when he was isolated in north-central Anatolia with a Persian army between him and Constantinople, can only have been off supplies raised locally. This may explain his relative inactivity during this time.

Necessity meant that his supply methods must have been even more *ad hoc* than was common in the sixth century. The economic situation was so desperate that Heraclius was forced to compel the churches of Constantinople, including the Hagia Sophia, to hand over their gold plate to pay for the army.[1044] Established mints were abandoned and

---

[1042] Morrisson & Sodini 2002.
[1043] Kaegi 2003, 52. The date of the elder Heraclius' death is uncertain, but he was definitely alive when Heraclius declared himself emperor.
[1044] Nic. Con. *BH* 11; Theoph. AM 6113 [302].

temporary ones established in regions near to the army.[1045] In such circumstances the taxation system cannot have been a reliable source of supplies.

During his major campaigns it seems certain that Heraclius used an entirely *ad hoc* system of supply based on exploiting the resources of the campaign region. Whenever possible he made his winter quarters in enemy territory and lived off the land. The winter of 624/625 was spent in Albania until driven back to Persarmenia and Lake Van and the winter of 627/268 saw him in Persia, mostly at Ganzak, where he spent a month living off the supplies raised for Khusrau's army.[1046] Since no supplies could reach him that far from Roman-held territory he must have been taking it from the surrounding countryside. Indeed, an Albanian chronicle describes him ravaging farmland and attempting to convince local Albanian princes to support his army in 624.[1047] He also took supplies from his enemies more directly by capturing the baggage trains of Shahin and Shahrbaraz, the two Persian generals sent to drive him out.[1048] Persian forces adopted the same scorched earth tactics that had held off Julian, but by moving rapidly and unpredictably Heraclius was able to keep his forces supplied and continue his campaign.[1049] Further evidence of an *ad hoc* supply system is the fact that the debate over which way to return to Roman territory was settled by the argument that the route back to Amida and Martyropolis contained land better suited for supplies.[1050] Whether through forced purchases or uncompensated requisitions, his army did not have any preestablished supply depots to rely on.

The state of the supply system between the recovery of the provinces and the Arab Conquest is uncertain. The Persians left the existing system of taxation mostly intact in Egypt and likely it was similar elsewhere, which would have made the reestablishment of Roman authority simpler.[1051] Egypt during the Arab Conquest seems

---

[1045] Grierson 1951, 56-67; Kaegi 2003, 87. Heraclius' reign seems to mark the end of the organization of mints established by Diocletian (Hendy 1985, 417-420).
[1046] Kaegi 2003, 122-191, contains the most reliable reconstruction of Heraclius' campaigns.
[1047] Movses 2.10 [236].
[1048] Sebeos 38 [126]; Theoph. AM 6115 [310].
[1049] Sebeos 38 [124]; Theoph. 6114 [308]. Heraclius was able to winter for a month in Khusrau's hastily evacuated base of Ganzak, which shows that the scorched earth policy was not effective.
[1050] Theoph. AM 6116 [312].
[1051] *P.Oxy*. 16.1843 (623), 51.3637 (623), 55.3797 (624).

to be operating in a very similar way to its operation in the late sixth century. Whatever changes or restorations Heraclius made cannot have lasted outside the core provinces of Asia Minor and parts of Thrace. When we next see the supply system in operation it is a very different affair managed by eparchs (the former supply prefects) and overseen by the *strategoi* of the Themes. This phase, however, lies outside the bounds of this study.

Like the West in the fifth century, the early seventh century saw the permanent occupation of most of the East's most prosperous provinces and the supplies they included. Unlike in the West, the disruption to the commissariat in those territories was more severe. The wealthy families who held the pagarchies were obvious targets for invading forces and their loss would leave the region without any experienced municipal tax officials. This targeting of wealthy elites is not merely theoretical. The two known heirs of the Apion family (both pagarchs) vanish from the records by 619, almost certainly casualties or refugees from the Sassanian conquest.[1052]

The Arabs targeted wealthy and important individuals as well, which would have removed many of the pagarchs who survived the Sassanians.[1053] Unlike the Sassanians, the Arabs made substantial changes to the taxation system, particularly at the upper levels. The limited number of surviving officials with administrative experience would have helped with this. The Arabs did, however, keep the position of pagarch, albeit under the new name *ṣāḥib al-kūra*, and, at least initially, many lower level elements of the existing taxation system.[1054] Some pagarchs were even able to continue in their positions.[1055] Rather than invent a new tax system, the Arab conquerors simply issued demands and left their fulfillment up to the inhabitants, who naturally continued their existing methods. It was only later in the century that efforts were made at rationalization.

Agathias mentions how the soldiers in Thrace in the 550s were demoralized because imperial officers had cheated them of their pay, a major problem since they were expected to buy their own equipment and clothing.[1056] Thrace continued to be troubled

---

[1052] *PLRE* 3.98-99 (Apion 4), 3.1203-1204 (Strategius 10). See Palme 2007, 265 n. 97.
[1053] Joh. Nik. 182.113.4
[1054] Morimoto 1981, 33-51.
[1055] One such pagarch is Athanasius of Heracleopolis (*CPR* 22.1).
[1056] Agath. 5.14.1-5.

throughout the century, even after the quaestor had been replaced, until after two mutinies the Thracian army overthrew Maurice in 602. Among their complaints were that the emperor was removing their clothing allowance and that their rations were insufficient.[1057]

On the other hand, the other new prefectural post, the supply prefect, proved to be effective and served to address a real issue caused by stationary prefects. If there was any decline in the effectiveness of the commissariat, the supply prefects managed to offset the difficulties and keep the armies fed.

2. Efficiency

Efficiency is an important counterpoint to effectiveness when considering the capabilities of the commissariat. The goal of the commissariat was to get as many supplies as possible where they needed to go at the smallest cost. The ability of the commissariat to raise supplies is meaningless if insufficient quantities reach the soldiers they were raised to feed. The level of wastage involved in the system plays a crucial role in determining the amount that needs to be raised. It follows logically that if only half the supplies raised are reaching the army then an effective commissariat must raise twice as much. This will have a very important impact on any judgements made about the usefulness of the system.

The answer to the question of whether the state supply system was/was not efficient largely depends on the viewpoint from which the question is considered. From the central government's perspective the use of local elites as tax-gatherers and suppliers was highly efficient since it required no direct cash input on its part and did not waste officials paid by the state except for the monitoring and handling of specific problems. The only major direct expenditure for the state was maintaining the men in the prefectural office who calculated the indictions and maintained the records. Even in emergency situations, the state was generally able to place most of the burdens of supply onto obligated non-state actors.

[1057] Joh. Nik. 102.10; Theoph. Simok. 8.6.10.

The system would not, however, have looked so efficient to the provincials themselves, or even to the soldiers who had to rely on them for their supplies. To provincial taxpayers, the constant task of raising supplies was a burden, and one for which they would have seen little in the way of direct benefit. Instead, they would have been mainly conscious of the potentially enormous expenses and inconveniences placed on them. Rather than neat lines of numbers they would have dealt with the human elements – disorder, and resistance. Soldiers also had to deal with supplies on a regular basis and, judging from Abinnaeus' archive, they were very proactive about it. To be otherwise was to risk running out of supplies. For these reasons any claims made about the overall efficiency of Roman supply methods are of necessity hedged with caveats and dependent on the perspective from which the question is viewed. Any generalizations about the empire's relative inefficiency must be countered by considering the numerous problems which the empire needed to deal with.

The basic approach that this chapter will take when assessing efficiency is to consider the difference between the quantity of supplies raised and the quantity delivered. This is an unambiguous measure of efficiency that is not as reliant on value judgements, and while we rarely have access to the figures that could quantify this difference exactly we do have enough to suggest patterns. By examining the causes and necessity of these losses we can provide an outline of the general level of efficiency in the Roman commissariat.

Losses alone are not an index of efficiency but they are an essential starting point to make any judgment about it. Efficiency is the comparison between the losses known and the degree to which it approaches the operational minimum that can be achieved given the limitations that the raising authorities are operating under. Losses can loosely be split into two related categories: acceptable losses and corruption. By acceptable losses is meant the anticipated and authorized losses that arose due to the inefficiencies of the supply system or as a matter of practicality. Corruption covers the losses that were incurred when people stole from or interfered with the operation of the supply system for their own personal advantage.

2.1 Acceptable Losses

2.1.1 Wastage

We lack the data to quantify the amount of wastage inherent to the regular operation of the Roman supply system, but it is possible to provide some minimum numbers based on information from the law codes. There were undoubtedly additional costs about which we are not informed, but even a figure that is obviously too low can provide us with a useful minimum cost to the state and tell us where the majority of losses were likely to occur. For collecting the taxes the susceptors initially claimed 0.5%, rising to 2% over the course of the fourth century. Upon reaching its destination a further 0.5% was claimed by other officials for work done towards the tax collection process.[1058] The minimum amount wasted was thus 1%, an astonishingly low figure. Even the minimum of 2.5% indicated for the later part of the century would represent an extremely low amount of wastage and indicate a highly efficient commissariat.

As would be expected, the costs increased when the supplies needed to be transported beyond the province. The figures we are given for shipment of supplies by sea suggest that the *navicularii* were entitled to keep about 4% of the cargo.[1059] This figure comes from 334, and, like the fees for susceptors, these costs may well have increased. Adopting our minimal figures, this brings us up to a 6.4% loss for naval transport of interprovincial supplies. Land transport must have cost even more but we are not provided with examples of rates.[1060] This is still a very low cost for the transport of supplies.

Unfortunately, it is clear that there were a number of costs about which we are not as well informed. We know that *duces* were allowed to keep 1/12th of their soldiers' supplies by the early fifth century and that they regularly exceeded this amount.[1061] There were undoubtedly similar perks for other officials which are never mentioned in law. If the *duces* were entitled to such a benefit then it seems certain that the *comites* and *magistri militum* were collecting something as well. The pay of tax collection officials

---

[1058] *CTh*. 12.6.3 (349), 12.6.15 (369), 12.6.21.1 (386). See page 95.
[1059] *CTh*. 13.5.7 (334). See pages 136-139.
[1060] See pages 139-146.
[1061] *CTh*. 7.4.29 (407); *NTh*. 24.2 (443).

other than susceptors is vague. While *annotatores* (*tabularii*?) and other *officiales* are awarded 0.5% in 349, their payment likely increased alongside the susceptors'. If the amount due to other tax collection officials increased at the same rate then the 2.5% wastage rises to 12% with this cost and that of the payments to the *duces* calculated in. If supplies needed to be shipped outside the province the losses increased to 15.5%. In general, a minimum estimate of 10-15% wastage for supplies remaining inside the province and 14-20% for those sent beyond it seems reasonable. However, the existence of any unknown fees or charges could increase this rate dramatically.

In terms of man hours spent, the cost of supplying the army was certainly high. Three basic groups were dedicated primarily to the collection of taxes. The prefecture had an entire *scrinium* handling the tax returns of each diocese, the municipalities and their multitude of liturgical officials were consumed with the process, and the *navicularii* and others serving under a transportation liturgy were expected to assume government cargos whenever needed. In addition, the army had its own officials to handle its distribution to the soldiers. Many other groups were involved with the collection and distribution of taxes on an individual or part-time basis. This involvement in taxation and distribution was not a minor loss of time. The process of calculating the indiction needed to be finished by April, which meant that the prefecture must have been working on it during the winter months.[1062] The curials began to collect their taxes in July, but the process of selecting liturgical officials began three months prior to this.[1063] Susceptors in charge of granaries and *praepositi annonarum* would be needed to operate year round. So would exactors. The *navicularii* were restricted by the sailing season, but could be called on as necessary even in the winter months.[1064] All of these officials dedicated substantial amounts of time to supplying the army.

There were certainly redundancies in the system. The organization of liturgical officials throughout the empire was not the standardized system suggested in the law codes. Each region was left to organize its liturgical posts as it saw best, and the structure

---

[1062] See page 91.
[1063] See page 92.
[1064] See pages 132-134.

and even names of these officials could vary dramatically across the empire.[1065] The exact delineations of these officials' authority was not always clear, particularly in cases where local officials came into conflict with those from the central magistracies. Imperial commands were often vague. A law of Honorius, for example, indicates that the officials responsible for collecting the *annona* and other taxes should be those who have done so according to tradition.[1066]

The causes of this redundancy were varied. Some of these overlapping spheres of influence were used intentionally as a means to control officials by giving them powerful rivals. One of the more obvious examples of this was the way that Theodosius decided that the *princeps* in charge of each prefectural *scrinium* should be recruited from the *agentes in rebus* under the control of the *magister officiorum*.[1067] This meant that the magister would always have powerful agents in the prefecture and the emperor could be assured that he would hear about any abuses or threats to his authority. Similar overlapping spheres of authority are found at lower levels, where the governors and municipal officials would have had to answer to a wide variety of central magistracies. By having officials from many different offices reporting on each other, the emperor was theoretically more likely to hear word of any irregular conduct. Having officials with overlapping duties also increased the chances that if one underperformed it could be corrected by the other. The end goal of reliability was given priority over simplicity.

Much of this complexity was unavoidable given the central authorities' reluctance to assume responsibilities that could be left in the hands of local authorities. In general this was a policy that worked well for them. The local municipal organizations were able to do the work needed at low cost to the central government and were on hand to deal with problems quickly should they develop. The vast scale of the empire meant that direct imperial control of local government was neither practical nor desirable. However, localized government meant that a certain amount of inefficiency was inevitable. Variations made it difficult to identify whether the goals set by the central authorities were being met and made it easier to avoid accountability for mistakes, while the

[1065] See pages 87-106.
[1066] *CTh*. 1.12.7 (399/400).
[1067] Carney 1971a, 107; Jones, *LRE* 128-129, 162; Kelly 1998, 170-171.

distances involved meant that correction by the central authorities would come too slowly.

In general, the wastage of the Roman commissariat was considerable but largely unavoidable. While some costs, such as the cut of the supplies taken by the *duces*, seem unnecessary, the majority of loss would have been spent on the costs of transporting the food and managing the system. While more government control over the local bureaucracy could have removed many of these redundancies it could only have done so by increasing the cost it required to manage the system.

2.1.2 Tolerated Waste

A certain amount of loss is inevitable in any supply system. The first, key question that needs to be considered when discussing what the Romans considered acceptable losses is what quantities of supplies were being raised. This is generally difficult to determine since our sources rarely state exact numbers. There are two main exceptions to this. In both cases there are significant limitations to their usefulness in defining the level of wastage involved.

The first of our large-scale numbers comes from the reign of Constantius II. When preparing for his cousin Julian's invasion he stockpiled three million *modii* in Raetia, and a further three million in the Cottian Alps.[1068] From this stockpile he intended to supply his expeditionary force. We do not know the size of Constantius' projected army, but it probably would not have exceeded 40,000 men, a large army for this period. If we assume an army in this range, then the grain was enough to keep them fed for over three years. Adjusting higher, if the army had the 65,000 of Julian's Persian campaign (the largest known for the period) then they still had enough supplies for two years.[1069] It is clear from these figures that the amount of grain raised was dramatically more than was needed for the campaign. This suggests that the wastage here was very high, and that

[1068] Jul. *Ep. ad Ath*. 286b.
[1069] See Elton 1996, 210-224; Nicasie 1998, 203-205. See pages 28-35 for more on ration sizes.

in fact more than half of the grain raised (perhaps as much as 2/3) would have gone to waste.[1070]

Several considerations are likely to have led to this overstocking. One issue was the security of the supplies being stockpiled. Constantius would have to consider the fact that Julian could position himself to seize several or all of the cities where the grain was being stored. Civil wars being uncertain things, the cities could even go over to him of their own accord. If this were to happen, Constantius would find himself feeding his army from a fraction of his initial stockpiles. If the initial supplies raised were too small then any losses would leave him facing a shortage. He needed a supply surplus for safety. Constantius would also have to take into account the fact that he would be responsible for Julian's army should he be successful in his objectives.[1071] With his opponent's supply line potentially cut off by Germanic invasions in his rear that Constantius had encouraged, Constantius would have had to provide all of the food needed to keep his new army supplied. If he failed to do so the army might dissolve and he would lose access to his new manpower.

Our second source for supply numbers is the anonymous chronicler known as Pseudo-Joshua the Stylite. This chronicler lived in the chief supply hub of Edessa throughout this period and was a witness to the Anastasian War of 502-506.[1072] He does not provide total figures for the amount of grain raised, but instead describes the amount of *bucellatum* baked in Edessa by the general population. The grain had already been collected and transported to the city's granaries before this point. This limits what we can say about the total amount transported, but it does provide us with specific information about the preparation and distribution of grain. During the first two years of the war, the private citizens of Edessa baked a total of 2.1 million *modii* of *bucellatum* in their own stoves.[1073] While *bucellatum* lasted longer than regular bread, it still went bad over time

---

[1070] See pages 28-35.
[1071] Enemies defeated in civil war were frequently incorporated into the victorious army. See Lee 1998, 321-323.
[1072] Trombley & Watt 2000, xxvi.
[1073] Ps-Josh. 54 [281] (630,000 *modii*), 70 [295] (850,000 *modii*), 77 [300] (630,000 *modii*). The amount baked on each occasion is comparable in scale to the 600,000 *modii* of grain sent by Honorius to Wallia,

and could easily become moldy and infested with maggots and weevils.[1074] The 2.1 million *modii* was presumably just for the year's campaign. The scale of bread raised here is similar to the amount of grain raised in Raetia.[1075]

For this campaign, Pseudo-Joshua provides us with actual army numbers in addition to the quantity of grain. According to him, the total number of soldiers operating in the region was greater than 52,000 men.[1076] This was an enormous army for the period and would have sorely stretched the supply network. The total amount of bread recorded by Pseudo-Joshua would only have kept this many soldiers supplied for about ten months. If, however, the grain baked in private houses was matched by an equal amount of bread baked by the baker's guilds (and in reality these guilds with their specialized ovens were likely to have baked the majority of bread used) they could have fed the army for twenty months.

Edessa was the capital of Osrhoene and the chief city in the logistical network for the campaign, so it likely baked more bread than any of the neighboring cities. However, all these cities combined should have been able to match Edessa's totals. With the bread from Alexandria added in there as well, we are likely looking at the actual quantity of baked bread being at least three to four times the amount recorded by Pseudo-Joshua. This would be 3.15 to 4.2 million *modii* annually, which was substantially more than the 2.3 million required to keep an army of that size fed. The supply prefects clearly did not wish to risk running out of supplies.

---

king of the Visigoths (Olymp. fr. 30). This was in exchange for the return of Galla Placidia, but also to be used for fighting the other Germanic peoples in Spain.

1074 As happened to the *bucellatum* of Belisarius' army in Proc. *BV* 13.12-20, blamed on the insufficient cooking time used when preparing it. The problems of American Civil War hardtack are memorably described in Billings 1887, 113-119. American hardtack was cut into squares and perforated to allow them to bake as thoroughly as possible. No manual states how Roman hardtack was prepared, but it was likely baked into doughnut-like rings in the same way *paximadi* was in the medieval period. This would have left them more uneven and bulky than American hardtack, and would have decreased their shelf-life.

1075 Ps-Josh. 77 [300]. He only specifies what sources are excluded from his count for his final numbers, but it seems clear that this was his procedure throughout.

1076 Ps. Josh. 54 [281]. This consists of the 40,000 men serving under Patricius and Hypatius combined with the 12,000 soldiers under Areobindus. They were joined by Celer with another large army of indeterminate size. Marc. com. s.a. 503, provides the much lower numbers of 17,000 men (15,000 men in the first three armies and 2,000 reinforcements with Celer), but does not seem as well informed on the events as the witness Pseudo-Joshua.

There is every indication that this level of overstocking was not the exception but the rule. When we hear that Constantius' prefect was skilled at having supplies prepared in advance or that Valens' prefect brought a large fleet for the supply of the army we should assume a comparable level of preparedness.[1077] Whenever our sources provide details for the scale of supplies they suggest that surpluses were common. Julian, for example, was able to go on campaign with twenty days' food for his soldiers taken from his winter stores when his regular supplies were delayed.[1078]

The reason for raising more supplies than strictly necessary is obvious: the state needed the flexibility to deal with unexpected circumstances. Raising the bare minimum projected was to invite disaster. Julian captured Raetia and the Cottian Alps at the very start of his campaign east.[1079] If Constantius had been relying on the supplies there to keep his army fed then he would have needed to rapidly raise fresh supplies through forced purchases and superindictions. This could have taken several months during which he could not campaign and his army would be vulnerable. Areobindus' (and later Celer's) Persian campaign likewise faced the danger of having their supplies captured by the enemy, as happened on at least one occasion.[1080]

The amount of wastage on campaign could clearly be very large, even when we lack the numbers to quantify exactly how large. Julian's Persian war provides us with a good example of how wasteful a campaign could be. The Roman willingness to discard resources for the sake of the campaign first appears when Julian ordered supplies prepared along the route leading towards a crossing of the Tigris, only to turn right at Carrhae and march down the Euphrates instead.[1081] The ruse to fool the enemy involved abandoning what must have been hundreds of thousands of *modii* of grain in forts which he knew he would not use. Procopius' army could still make use of some of these supplies and Julian's force was able to take advantage of them on its return, but the

---

1077 Amm. Marc. 19.11.2; Zos. 4.10.4.
1078 Amm. Marc. 17.8.2.
1079 Julian does not lay out the fate of these supplies in his letter to the Athenians, but the fact that he knows the exact figures suggests that he had captured them. The letter was written in the summer of 361, after Julian had passed through the Raetias and the Cottian Alps (Humphries 2012, 77).
1080 Ps-Josh. 55 [282].
1081 Amm. Marc. 23.3.6; Malal. 13.21 [329].

wastage would still be high and the man-hours and transport costs could not be recovered.[1082]

For the actual transport of supplies alongside his expedition Julian had 1,000 ships built at Samosata.[1083] Combined with a large but unspecified number of pack animals, this allowed Julian to bring his supplies with him all the way to Ctesiphon. The large storage capability of the fleet meant that Julian could transport more supplies with him than was typical for a campaign. However, in terms of manpower it was very costly. Nearly 20,000 soldiers (*armati*) were occupied in transporting and guiding the fleet.[1084] That means that one in three men or more was occupied overseeing the transport of food.[1085]

This fleet was highly effective until it crossed the Tigris. At that point the ships were burned along with what must have been a substantial portion of the supplies remaining. This was apparently all a part of the plan from the beginning.[1086] Roman commanders were often willing to waste supplies, even in large quantities, if they felt it was to their advantage. In Ammianus' account of Julian's Alamannic Wars, Julian's rival commander Barbatio seized supplies destined for Julian and burned what he did not use out of spite.[1087] Matthews argues that in reality Julian and Barbatio had failed to coordinate their joint campaign and so Barbatio burned the excess supplies.[1088] Barbatio cannot have been acting outside conventional Roman practice since he would need to justify himself to Constantius. If there was a choice between supplies being destroyed or falling into enemy hands it was Roman practice to deprive the enemy of their resources. Rome's resources were plentiful enough that it could afford to be wasteful on campaign.

The key point is that the empire needed to take a large array of possible outcomes into account when preparing its supplies, even if none of these outcomes then transpired.

[1082] Amm. Marc. 25.8.7.
[1083] Amm. Marc. 23.3.9. The sources all provide a similar number of transport ships. Zos. 3.13.2 says that there were 1100, Magnus of Carrhae (Malal. 13.21 [329]) says there were 1250 ships total, and Zon. 13.13 [66] says that there were 1100 total. See Dąbrowa 2008, 238.
[1084] Amm. Marc. 24.7.4.
[1085] Lib. *Or*. 18.262; Soz. *HE* 6.1, actually place it as high as one in two men.
[1086] Lib. *Or*. 18.262-263. See also Dąbrowa 2008, 238.
[1087] Amm. Marc. 16.11.12.
[1088] Matthews 2007, 299.

A minimal surplus of supplies severely limited the options for waging war or negotiating its preferred political outcome. For that reason there was a high level of intentional waste built into the system, and the level of waste would have increased during major military operations.

2.2 Corruption

A major area of inefficiency that the Roman state had to deal with was corruption. Unlike tolerated losses, the inefficiency of corruption benefitted only the perpetrators and did so at the expense of the recipients designated by the state. For that reason the imperial authorities were less prone to tolerating corruption. Inefficiency was largely unavoidable, but corruption needed to be curtailed. Corruption impaired both efficiency (by imposing greater wastage than was required) and effectiveness (by reducing the amount delivered to the soldiers). Losses due to intentional wastage were accepted because they established a safety net and increased the reliability of the supply system. Losses due to corruption went into the pocket of the officials who took them and damaged the supply system to the extent that every item taken was one less for the government to receive.

Corruption was rife in the Roman Empire, although it is difficult to quantify its prevalence without any reliable record of projected vs. actual resources. One of the chief difficulties in making judgements about corruption comes in defining what is meant by the term. Romans did not see anything inherently wrong with providing positions for family members or friends or rewarding powerful people with material benefits beyond what they were due. In fact, it was considered entirely fitting that someone who had done someone a favor should receive benefits once that person had achieved a position of power.[1089] One of the more striking examples of corruption is the purchasing of posts. To a modern audience this clearly represents corruption, but to an ancient audience this was simply the way matters were run.

Rather than focus on matters like this, which were accepted forms of corruption that existed in the late Roman state, this section shall focus on the abuses that were

---

[1089] Saller 1982, 7-39. See Lib. *Ep*. 54.2, for an unapologetic example of this.

perpetrated contrary to the will of the emperor. The reasons for this focus are twofold. Firstly, there has already been some excellent work done on accepted forms of corruption within the Roman Empire. MacMullen's monograph on corruption and Kelly's on the late Roman prefecture both focus on describing the different ways in which officials were allowed to take advantage of the system.[1090] The second reason for focusing on illegal corruption is that most of the evidence for accepted forms of corruption comes from the works of John Lydus and deal with the judicial side of the prefecture. Both the works discussed above (but particularly Kelly) focus on corruption within the legal field. While there are some examples of men bribing officials to put their names forth for certain taxation positions, the acceptance of bribes when collecting taxes seems to have been much more strictly prohibited than collecting payment for legal procedures. Taxes were the lifeblood of the empire, and anything that interfered with its operation was a danger. The sort of collusion between local elites and imperial officials that might have been permitted in other matters were strictly forbidden when it came to tax. Certain types of officials were not even allowed to communicate with each other for fear that they would conspire to steal tax money.[1091]

Quantifying the extent of this abuse is impossible. It is clear that corruption was present at all levels of the supply system, with the potential seriousness of the abuse increasing the closer we come to the top. However, since we are only given the most extreme examples of corruption it is unclear how indicative they can be for more common forms of corruption. Even if many of these examples are isolated extremes they represent the limits of the profits that could be made from the Roman supply system.

Corruption is a very broad term. Means and targets of corruption varied greatly across the different levels of the supply system. Many forms of corruption targeted taxpayers but others targeted liturgists, the central authorities, or the soldiers directly. All forms of corruption had a powerful impact on the efficiency of the system by definition since they were increasing the difference between the amount raised and the amount

---

[1090] Kelly 2004; MacMullen 1988 (especially 137-167). Both acknowledge the major role that corruption played in administratiuve disfunction during the later empire, with MacMullen attributing to it much of the responsibility for Rome's decline and Kelly's less dogmatic approach still recognizing that it was responsible for several of Rome's ongoing problems.

[1091] *CTh*. 8.1.14 (398).

disbursed. However, this impact could vary depending on the form of corruption practiced and the official associated with it. The impact on effectiveness is more inconsistent. In some cases the impact is only tangential. Extracting more from farmers than they owe does not ultimately deprive the army of any grain. It does, however, decrease the resources available to the farmer and as such can impair his ability to pay future taxes. Forms of corruption that stole from the soldiers obviously had a more immediate impact.

Since each area of the commissariat had access to different forms and targets of corruption it is important to consider them all individually and ask what effect they could have over the efficiency and effectiveness of the system. This is not an attempt to quantify corruption since that is an impossible goal in the absence of detailed records and accurate numbers. However, considering the various officials involved and the difficulties it could cause can provide us with an idea as to the range of possible patterns of corruption.

2.2.1 Taxpayers

For those with no influence with liturgical officials, tax evasion was usually impossible, although that does not mean that people did not try. The main way of avoiding taxes was to hold out for a tax remission. Emperors issued these periodically (an entire chapter of the *Theodosian Code* is dedicated to tax remissions, and there were five novels under Valentinian III alone), so benefitting from one was not impossible.[1092] The emperors were aware of the need to not bleed their taxpayers completely dry and were willing to accept a certain amount of non-payments from people who could not afford it through famine or some other disaster.[1093]

When a tax remission was granted, taxes were forgiven beyond what had been already paid, so the sole beneficiaries were those who had not already payed all their

[1092] *CTh*. 11.28; *NVal*. 1.1 (438), 1.2 (440/441), 12 (443), 1.3 (450), 34.2 (451); *NMarc*. 2 (450); *NMaj*. 2 (458). This likely does not represent a full list of tax remissions. There is no mention of the lost tax revenue that must have followed from Rome's withdrawal from the Danube as per their treaty with Attila.
[1093] *NVal*. 1.3.3 (450).

taxes for the year. Those taxpayers who had paid would not receive any refunds, so they would not gain anything from the remission. Thus, it was in a taxpayer's interests to delay payment as long as possible. Obviously, the people best able to evade the tax collectors in this way were the wealthy elites. With their own men to hold off the tax collectors and potential connections at court or in the cities, collecting taxes from these people could be more difficult than collecting from local peasant farmers. Indeed, some of the local elites would outrank not merely the susceptors collecting the taxes but the governor himself.[1094] In addition, some privileged elites held the right of *autopractorium*, or self-collection. They were allowed to collect their own taxes and ignore the tax collection officials, which obviously made it easier for them to abuse the system.[1095] It was recognized at the time that the wealthy benefitted disproportionately from tax remissions, which was why Julian refused to grant them in Gaul.[1096]

In general though, taxpayers were at a disadvantage when compared to liturgical and officials of the central government. While there were some ways for them to cheat the system, particularly if they were wealthy, they were more frequently seen as victims of the taxation system rather than as exploiters of it.[1097]

2.2.2 Soldiers

Soldiers were strictly prohibited by imperial law from tax gathering.[1098] It is clear that they did so anyway. The only action that they were legally allowed to take when supplies were not delivered to them was to inform the governor and the officials involved in collection, who in turn were strictly forbidden to identify recalcitrant taxpayers to the soldiers or use them in tax enforcement.[1099] However, the laws also provide evidence that

---

[1094] *NTh*. 15.2 (441) actually records an example where the emperor needed to intervene in support of his governor when an allege *vir ilustris* set up in the governor's court and used his slaves to disrupt tax collection. Harries 1999, 167, points out that governors were only *viri clarissimi*, which was the lowest rank on the honors network.
[1095] *CTh*. 11.22.4 (409).
[1096] Amm. Marc. 16.5.15; Matthews 2007, 89.
[1097] See pages 257 to 272 for examples.
[1098] *CTh*. 11.7.16 (401). That this prohibition was taken seriously is shown by the heavy fine that governors were to receive if *opinatores* were used to collect tax arrears.
[1099] *CTh*. 13.10.5 (367), 7.4.26 (401), 11.7.16 (401).

this was indeed happening and we find soldiers intimately involved in the collection process in Abinnaeus' archive. This involvement included the permitted hounding of liturgical magistrates for supplies, but also involved travelling along with them as they collected taxes and even transporting the supplies themselves.[1100]

Using soldiers to collect and supervise their own supplies might be seen as efficient, particularly since it could be done in tandem with other duties such as patrolling the countryside.[1101] In practice, however, it was anything but, since bands of soldiers were more likely to extort or otherwise take advantage of the situation than liturgical officials. Soldiers were a favored group in the empire and among their benefits were immunity from prosecution in a civil court. Instead of being judged before the governor they were to be judged by their commanding general.[1102] Military courts were more likely to take the side of soldiers than of civilians, if the taxpayers could even get a hearing in the first place.

This meant that soldiers collecting the supplies could exploit their position with near impunity. Abuses against the taxpaying population had a strong, albeit indirect, effect on the efficiency of the Roman system of supply. Exploiting the provincials damaged their ability to pay their taxes and forced the government to drive the peasants into penury or else raise the taxes elsewhere.

Most forms of soldierly abuses involved gathering more supplies than they needed and then selling the surplus. Soldiers were issued with set rations, so if they could supplement these supplies by other means then they could sell the state-issued rations at a profit. The easiest way to gain these excess supplies was through extortion. Soldiers had a reputation for violence and arbitrary punishments towards the civilian population. In third-century Anatolia, five separate villages engraved their petitions to the emperor Philip on stone in gratitude for restraining the soldiers enforcing tax collection.[1103] In c.

[1100] *P.Abinn*. 4.9-12, 29; Paul. Nol. *Ep*. 25.5.
[1101] See Isaac 1990, 54-218; Fuhrmann 2012, 123-169, 201-238, for the use of soldiers in peacekeeping activities.
[1102] *NTh*. 4.1 (438); Jones, *LRE* 487-488.
[1103] See Hauken 1998, 35-57 (Ağa Bey Köyü), 58-73 (Kemaliye), 162-168 (Kavacık), 244-246 (Demirci), and 247-250 (Kassar).

400, Augustine considered it a controversial position to state that "indeed, it is not being a soldier but being spiteful that prevents you from doing good", when he was discussing the military's treatment of the poor.[1104] In about the same year, Paulinus of Nola explicitly associated soldiers collecting taxes with violence.[1105] The law codes themselves, while rarely outlining punishments for soldiers (who would have come under the jurisdiction of the *magister militum* and not the lawyers compiling the codes) do refer to examples of soldierly abuses and condemn them.

Another means of raising a surplus was by simply stealing it. This was particularly easy for soldiers reliant on *capita* to keep their animals fed. By feeding their animals on public land, soldiers could sell the *capita* sent in by the liturgical officials.[1106] A more subtle way of stealing extra resources was to demand supplies for nonexistent troops. We can see an example of this in a law from 399, where units of opinators were demanding the baking of bread in regions where no soldiers were stationed so that they could profit from the breadmakers' labor.[1107] This bread could then be sold for profit. Soldiers were capable of hiding corruption behind a legal front, just as civil officials did. One means by which they could steal supplies was to reject the grain brought in by susceptors and demand a replacement.[1108] Unless the susceptors were willing to pay to have the grain shipped back, the rejected supplies would remain in the soldiers' camp where it could then be sold off.

The last means of raising such a surplus was less damaging to the taxpayers but still destructive for the state and local elites. This was the allying of soldiers with the taxpayers, where the soldiers prevented tax collectors and landlords from collecting the tax and rent, and the taxpayers paid them supplies in compensation. Libanius wrote an entire oration complaining about how a band of soldiers had colluded with his tenants to defraud him of rent.[1109] Although taking supplies directly from the farmers, they were still drawing rations from the tax money payed by the rest of the province.

[1104] "Non enim benefacere prohibet a militia, sed a malitia" (August. *Serm*. 302.15).
[1105] Paul. Nol. *Ep*. 25.5.
[1106] *CTh*. 7.7.3 (398), 7.7.4.1 (415), 7.7.5 (415).
[1107] *CTh*. 7.5.1 (399).
[1108] *CTh*. 7.4.21 (396).
[1109] Lib. *Or*. 47; Kelly 2004, 169-172.

The obvious result of these abuses was that the commissariat was providing supplies to soldiers who did not need it.

2.2.3 Commissary Officials

The commissary officials tasked with issuing supplies to the soldiers were distrusted by the state. They were rewarded for completion of their service, but denied the position of *milites* granted to most other civil servants.[1110] As A.H.M. Jones points out, this can only have been intended to leave them liable to torture.[1111] Imperial reasoning seems to have been that officials threatened by the possibility of such treatment would be less likely to take a chance with corrupt practices and would be easier to extract information from if they did.

Ancient writers were not pleased with them either. Aurelius Victor dedicates a lengthy aside to describing the crimes of *actuarii*:

> They are a kind of people, especially in these times, who are worthless, venal, underhand, rebellious, greedy and, so to speak, fashioned by nature for committing and concealing frauds. They control supplies and therefore they are the enemies of those collecting the produce and of the well-being of the farmers since they are proficient in the opportune bribery of those through whose folly and ruin they have amassed their wealth.[1112]

Ammianus was likewise unimpressed with their trustworthiness and describes how one caused a mutiny that killed Jovian's father-in-law once it became clear that the *actuarius* would be found guilty of embezzlement.[1113]

[1110] *CJ* 12.49.9 (472-473).
[1111] Jones, *LRE* 626, as suggested in *CTh*. 8.1.6 (362).
[1112] "Genus hominum, praesertim hac tempestate, nequam venale callidum seditiosum habendi cupidum atque ad patrandas fraudes velandasque quasi ab natura factum, annonae dominans eoque utilia curantibus et fortunis aratorum infestum, prudens in tempore his largiendi, quorum vecordia damnoque opes contraxerit" (Aur. Vict. 33.13).
[1113] Amm. Marc. 25.10.7.

Despite their reputation for corruption the *actuarii* seem to have been popular with and trusted by the soldiers.[1114] This presumably means that the *actuarii* were not stealing from the soldiers but from the taxpayers. Indeed, the opportunities for collusion increased when soldiers were willing partners. Soldiers on leave could, for example, continue to appear on the account books allowing the *actuarii* to profit from their absence. Soldiers on detached duties provided the same opportunity, although they would need to draw grain from another source.[1115]

Emperors tried to limit the extent of this corruption in the same way they limited corruption by liturgical officials: they demanded that every step of the process be documented on paper. *Actuarii* needed to provide a requisition (*pittacia*) to the susceptor in charge of their granaries every day or every two days in order to receive their supplies for the soldiers.[1116] These procedures may have helped restrict large incidents of corruption, but as long as the *actuarii* could collude with the soldiers their opportunities for withdrawing more grain than they required were large.

2.2.4 Transporters

Imperial law says much about the *navicularii*, but imperial law only rarely mentions those involved in more local transportation liturgies.[1117] *Navicularii* were responsible for the majority of government shipping and they were highly important to the trade networks of the empire.[1118] The *navicularii* were given many favors in exchange for their service, but they were still regulated carefully. As the men who transported supplies from one end of the empire to the other it was easier for them to deceive officials

[1114] Jones, *LRE* 456-459.
[1115] *P.Abinn.* 4.17-20, has an example of soldiers being issued grain when away from the *actuarius*. There is no reason to assume that the soldiers here are an example of corruption, although if they are then the commander is being called out on it since the decurion is asking for his written authorization to supply these men.
[1116] *CTh.* 7.4.13 (365).
[1117] For more on this group see Jones, *LRE* 827-830; Schmidt-Hofner 2008, 290-299; Sirks 1991.
[1118] Karagiorgou 2001, 149-156; Loseby 2012, 339-341; Wickham 1998, 191-193.

on either side of their journey since communication delays meant that officials would have to trust their word.

Since the *navicularii* operated away from official supervision during most of their voyage it would be easy for them to "lose" supplies that they could then sell. In cases of storms, the state was willing to accept the losses incurred, but when cargo was jettisoned to save the ship the proof required was harsh.[1119] Half the crew of the ship were expected to submit to torture in order to be legally absolved of the debt.[1120] If the entire ship was lost then the relatives of half the missing sailors must appear in court to confirm their death. This law seems to have been taken seriously enough that we have two laws clarifying the initial one.[1121]

Another way of stealing revenue from the state was to replace the tax grain with lower quality or rotten grain purchased cheaply. When the *navicularii* arrived in their designated port, they could then give the worthless grain to the government and sell the tax grain to private buyers. Susceptoral officials at both ends of the journey were required to attest in writing that the grain was suitable for the army's use, but with two geographically separated liturgical officials and the *navicularius* all claiming that it was one of the other ones' fault, there was a good chance that they would not be prosecuted. To avoid losing revenue in this way, the emperors made it a capital crime for the *navicularii* to sell public grain.[1122] To further reduce this possibility, *navicularii* were forbidden from carrying grain while they were transporting a public cargo.[1123] This also prevented the mixing of grain, as would typically happen on a grain ship.[1124]

We have few laws concerning the pack animal guilds or others bound by obligation to transport supplies. They were probably under similar restrictions as the *navicularii*, although since they were transporting a shorter distance communication lines would have been easier. What is known about them is that their liturgies were ones that

---

[1119] *CTh*. 13.9.1 (372).
[1120] *CTh*. 13.9.2 (372/375).
[1121] *CTh*. 13.9.3 (380), 13.9.4 (391).
[1122] *CTh*. 13.5.26 (396), 13.5.33 (409).
[1123] *CTh*. 13.8.1 (395).
[1124] *Dig*. 19.2.31.

people avoided if they could.[1125] In order to draft people into this service the emperors forced freedmen to join the guild upon manumission.[1126]

2.2.5 Liturgical Magistracies

One of the most carefully regulated groups in the law codes are the decurions who ran the liturgical networks of raising taxes. Decurions had five complete chapters devoted to them in the *Theodosian Code*, in addition to the numerous laws dealing with them in other sections.[1127] The state had difficulty monitoring these positions. By their very nature the men filling these positions were difficult for the imperial authorities to vet. Each major city had an exactor. Each exactor had an unknown but clearly substantial number of susceptors under him, and each village would have their own officials.[1128] There were simply too many positions to be filled and the men filling them were too far from the imperial center for officials in the capital to know personally.

The lack of direct control worried the imperial authorities. It is clear from the law codes that the emperors considered curial officials to be unreliable and corruptible. To increase their control they tried several methods to encourage the selection of reliable people to these positions. The first recorded means of doing so was to require imperial appointment for higher level curial posts such as the exactor.[1129] However, with several hundred exactors across the empire this was never a practical method for appointing officials and it would undoubtedly lead to a simple imperial rubber-stamping of officials selected locally through bribes or patronage.[1130] Having emperors sign off on exactors' appointments did not change the fact that information on low level officials was hard to come by in the imperial court. A more ambitious attempt to control taxation officials was Valentinian and Valens' attempt to replace the susceptors with ex-*officiales* of the

[1125] *CTh*. 14.3.9 (368/370).
[1126] *CTh*. 14.3.10 (368/370).
[1127] *CTh*. 5.2, 6.23, 12.1, 12.3, 12.18.
[1128] See pages 90-106.
[1129] See page 91.
[1130] See page 91.

provincial government.[1131] When this law met with widespread resistance from *officiales* and governors, the emperors backed off on the change.[1132] Bureaucratic inertia proved more powerful than experimental policies.

Since centralized methods of control were not a practical way of controlling curials, the emperors relied on threats and intimidation to keep the liturgical officials in line.[1133] The possibility of imperial punishment was very real for officials caught stealing money from taxpayers. Stealing from taxpayers was considered theft from the government itself since it damaged taxpayers' ability to support the state. As a law of Valentinian III put it, "a landholder who has been made poorer is lost to Us, but if he is not overburdened, he profits Us" while "without doubt the fisc loses whatever the tax collector increases to his own advantage".[1134]

In order to increase the number of people susceptible to punishment, and therefore with an interest in ensuring that no laws were broken, the emperors decreed that any new liturgical official be nominated by a local notable in the *curia*. This nominator would be somebody who had already held the same or similar positions and who was important enough in the local community for the loss of prestige and wealth to be a significant threat. When a nominator chose an unreliable or corrupt man for the position they were held responsible for covering the losses that their nominee incurred.[1135] This would, in theory, prevent them from selecting unreliable friends or family-members. As a result, the prevention of abuses was made the responsibility of the local *curia*. If their chosen official proved unreliable they, rather than the central government, would have to pay the price.[1136] This was about the best that the imperial authorities could do in the absence of sufficient imperial-appointed officials in all the provinces. Centralization would have been more efficient, but it would also have raised costs exponentially.

[1131] *CTh*. 12.6.7 (364/365), 12.6.5 (365), 12.6.6 (365), 12.6.9 (365/368).
[1132] Lenski 2002, 298-299; Schmidt-Hofner 2008, 120-147.
[1133] *CTh*. 12.1.127 (392), 14.4.10 (419); *NTh*. 15.1.1 (439); Lib. *Or*. 27.42, 28.22; Jones, *LRE* 544.
[1134] "Nobis perit deterior possessor effectus, nobis proficit non gravatus", "amittit sine dubio fiscus, quod commodo suo exactor augmentat" (*NVal*. 1.3.3 [450], tr. Pharr).
[1135] *CTh*. 12.6.1 (321), 12.6.8 (365), 12.6.20 (386).
[1136] See page 93.

The advantages of this system were obvious. The nominator and *curia* would be far more aware of the nominee's character and reliability than the central government could be, and they would not want to take the chance on a corrupt candidate since they would pay the price for his transgressions. It did, however, place the responsibility for this almost solely in their hands. While the governor was required to approve their choice, it seems unlikely that he would have much greater knowledge about the candidate unless he had already received petitions from locals.[1137] The curials would have had almost free rein.

Placing control of tax collection in the hands of curials as selected and monitored by other curials was naturally problematic. There were numerous opportunities to benefit the members of that class at the extent of poorer or rival citizens. Cliques among the curials could easily result in the exploitation of rival groups or common taxpayers. Since the emperor's main source of information about these problems were from the curials themselves it would be hard for an emperor to recognize when his curials were deceiving him. Deception by such cliques did happen. Libanius described how for one *curia*, "in this small number are some very influential, who wreak havoc on the weaker members, imposing their own burdens on them, and the prerequisites of curial rank swells their own wealth".[1138]

To prevent the development of rival power groups, the emperors placed additional hurdles in the way of the liturgical officials appointed to these posts. To undermine the power of cliques they required that the nominee for the position of exactor be made public three months before they were to assume office so that anyone lodging a complaint against them would have time to appeal to the governor.[1139] Any serious complaints would result in the exactor's replacement and a thorough investigation by the governor.[1140]

[1137] *CTh*. 12.6.20 (386).
[1138] ἐν τοῖς ὀλίγοις τούτοις εἰσίν, ὦ βασιλεῦ, μεγάλαι τινὲς δυνάμεις αἳ τοὺς ἀσθενεστέρους ἄγουσι καὶ φέρουσι τούτοις τἀκείνων προστιθεῖσαι, τά τε ἐκ τοῦ πολιτεύεσθαι κέρδη τὰ τούτων αὔξει (Lib. *Or*. 49.8, tr. Norman).
[1139] *CTh*. 12.8.1 (323), 11.7.20 (412).
[1140] *CTh*. 12.6.20 (386).

The theory behind this was that since the governor was not a native of the province he was less likely to have interests at stake in local matters and so could be relied on to be impartial in disputes with rival local factions. While the governor could not be expected to monitor all local power struggles, a legal case would bring the matter to his attention. This check seems unlikely to have been very effective except in the most extreme cases. Replacing an exactor just before the indiction would have too much potential to disrupt the collection of taxes and this remained the government's chief priority.

Even with all these efforts to remove exploitation there were still many acts of corruption within the empire. There are several laws repeating the command that tax officials must not take more than is allowed, a rather weak exhortation that emphasizes how wide-ranging such acts of corruption were and also how powerless the imperial response could be.[1141] Liturgical officials held many advantages over those they were collecting taxes from. They were the guardians of the tax records and accounts, which means that they were able to speak with an authority that would be hard to argue with. There were a myriad of ways to misuse this authority to profit themselves.

The ways in which liturgical officials took advantage of the system varied. At the top of the liturgical ladder, the exactors raised extra taxes from provincials by claiming that they were collecting superexactions.[1142] The *tabularii* in the cities took bribes to transfer tax burdens from wealthy to poorer men.[1143] Susceptors charged taxpayers more than the permitted amount to transport their taxes.[1144] Compulsors were particularly mistrusted, being less answerable to the local authorities and in a strong position for extortion.[1145]

While the appointment of reliable local officials was always going to be an area where the emperors could exert little control, they could still try and limit the ways in

---

[1141] *CTh*. 8.8.7 (395), 11.8.2 (400), 11.8.3 (409). Harries 1999, 78-79, argues that the repetition of laws does not necessarily indicate that they were failing to be fulfilled but rather indicates that state intervention in previously unregulated issues was becoming more common.
[1142] *CTh*. 11.8.1 (397).
[1143] *CTh*. 13.10.1 (313).
[1144] *CTh*. 12.6.3 (349), 12.6.15 (369), 12.6.21.1 (386).
[1145] *CTh*. 1.16.11 (369), 8.8.7 (395), 8.10.3 (400).

which corrupt officials were able to take advantage of the system without punishment. The main way in which they did this was by requiring large amounts of documentation at every stage in the collection process. *Tabularii* kept records of which taxpayers had paid taxes and what was still owed, susceptors issued receipts to taxpayers, the governor passed the records of tax collection on to his successor, etc. In this way officials could keep an eye on their rival officials and any wrongdoing could be proved through documentation.

The growth of paperwork did not help with the efficiency of the system, but it was necessary to limit the extent to which abuses could be committed and therefore reduce the chances of raising insufficient funds. While not flawless as a method of control, it did make it easier to prove when payments were made and by whom. There was little the emperors could do about systemic abuses. The best they could achieve was to make it easier to prove such thefts when they occurred. By ensuring that the process was documented as thoroughly as possible, the emperors could at least make officials work harder to fool the system and increase the chances that a subsequent investigation would unearth the truth.

There were other efforts taken by the emperors to restrict provincial abuses. A law of Valentinian placed the responsibilities on the governors to travel through the villas and villages of their provinces to make sure that compulsors are not extracting too much or too arrogantly.[1146] Later, the emperors permitted compulsors to be punished for abuses without consulting the emperor.[1147] Since the main efforts to reduce corruption involved documentation, the keepers of these records were mistrusted. *Tabularii* were required to remain in the province they had served in for two years after their term of service.[1148] *Tabularii* were also liable to torture if they did not keep adequate records readily available.[1149] This was a sign of the emperors' deep distrust of the *tabularii*. Susceptors and most curial positions were immune from torture.[1150] The sheer number of examples

[1146] *CTh.* 1.16.11 (369).
[1147] *CTh.* 8.10.3 (400).
[1148] *CTh*. 8.1.9.1 (365/368).
[1149] *CTh*. 8.1.9pr. (365/368).
[1150] *CTh*. 9.35.2pr. (376).

for different forms of abuse shows that incidents of corruption were common, even if we lack the ability to quantify it.

2.2.6 Bureaucrats

Just as with liturgical magistracies, the main means by which bureaucrats from the central administration misused the system was through their control of paperwork. Most abuses that the liturgical officials committed could equally be done by an agent of one of the central officials. What made them more dangerous than liturgical officials was their distance from any restraining authority. While the province's governor could handle complaints about the officials selected by the various cities, they had little direct authority over officials sent by higher officials.

Discussores were particular sources of distrust, enough so that the emperors eventually required an imperial command (rather than a prefectural one) to appoint them.[1151] As auditors it was easy for them to take advantage of sloppy paperwork or disorganization to profit at the taxpayers' expense. *Discussores* were accused alongside apparitors of a particularly pernicious form of abuse. After taxes had been collected and the tax receipts issued, the *discussores* would demand to see the receipts again. If the taxpayer had managed to keep their receipts then they would be fine, but if they had misplaced them then the *discussores* would charge them for the full amount of the tax, thus reducing the ability of the taxpayers to contribute to the next indiction.[1152]

This was a difficult form of abuse to prove since the *discussores* were ensuring that there was no paperwork to catch them as the first stage of their fraudulent claims. Any claims of abuse could be excused as innocent mistakes that arose from doing their job diligently. All that the emperors could do was demand that the *discussores* pay back what they stole if it could be proven that they acted illegally. [1153] Later laws were stricter and took their rank as well as four times their pay.[1154]

[1151] *CJ* 10.30.4pr. (530).
[1152] *CTh*. 11.26.2 (400); *NVal*. 1.3.2 (450).
[1153] *CTh*. 11.26.1. (369).
[1154] *CTh*. 13.11.8 (396)

The main bureaucrats involved in tax collection were, as might be expected, those of the prefecture. The praetorian prefect sent officials to oversee tax collection in the provinces as part of his responsibilities as head of the land tax. Theodosius repealed the law the following year in a law which stipulates that the collection is to be continued by the *palatini* as is customary and blames the delegation bringing the complaint for his decision.[1155] Honorius' efforts to make palatine compulsors accountable was simply to weakly insist that they not exceed their authority.[1156] It was not easy resolving issues with agents of the central magistracies.

2.2.7 Military Officers

As with common soldiers, military commanders were the beneficiaries of the supply system and therefore the easiest way for them to profit from it was to gather supplies they did not need and then profit from the surplus. They had the same opportunities as regular soldiers but on a larger scale. Their only disadvantage over their subordinates was that their higher profile made them more likely to be noticed.

The top ranking military commanders in the provinces (the *magistri militum*, *duces* and *comites*) were ideally positioned to take advantage of abuses. As the leaders of the armies, the generals had wide-ranging authority when it came to supply, and were willing to use it. The prime example of a general extorting from the taxpayers is the case of Romanus, *comes Africae*. When responding to complaints about bandits from the city of Lepcis Magna, he demanded supplies and 4,000 camels from the citizens. When they refused he withdrew his army and left the raiders alone.[1157]

This is an extreme example of a common occurrence. Synesius mentions in passing how a *dux Libyarum* extorted from his province by travelling from city to city with his army, not leaving until he was bribed sufficiently.[1158] Synesius is not alarmed or angry about it. In fact, he seems to regard it as normal, just like he regarded it as no more

[1155] *CTh*.11.7.18 (409).
[1156] *CTh.* 8.8.7 (395).
[1157] Amm. Marc. 15.5.36, 28.6.5; Zos. 5.34.6. See Lee 2015, 106.
[1158] Synes. *Ep*. 130.

than a nuisance that an officer had sold off the local soldiers' horses and turned them from mounted bowmen into foot archers.[1159] Presumably they were still getting paid the *capita* for their absent horses. This type of corruption was a general occurrence.

Stealing from the local community could damage the state's ability to extract taxes from the populace, but it did not cost the state directly. More alarming examples of corruption saw officers stealing not from the state but from their soldiers. Libanius describes some officers doing exactly this.[1160] Some forms of this theft were perfectly legal, and took the form of a mandatory payment. *Duces* were allowed to keep 1/12 of the *annona* from their soldiers for example, although even this amount seems to have been regularly exceeded.[1161]

2.2.8 Praetorian Prefects

There are not many laws that directly address corruption at the head of the prefecture. To who would such a law be addressed, unless it was mild enough to merely be a rebuke? In general, the prefects were viewed as the officials tasked to weed out corruption rather than be the sources of it. Thus, when Valentinian III wanted to reduce corruption among the *discussores* he decreed that governors were no longer allowed to appoint men to that position, only the prefects.[1162] Centralized authorities were seen as more reliable than those isolated from imperial power.

There are only two laws that may suggest prefectural corruption in collection of taxes. The first is a law of Constantius which makes clear that it is forbidden for a prefect to issue *annona* in another's diocese.[1163] While further details are not given, it seems that one of his prefects had been issuing orders for the grain to be taken from granaries assigned to another prefect. Another law restricting abuses came from the emperor

---

[1159] Synes. *Ep*. 132.
[1160] Lib. *Or*. 2.37.
[1161] *CTh*. 7.4.29 (407); *NTh*. 24.2 (443).
[1162] *NVal*. 1.3.4 (450). This was not a unambiguous display of trust however, since Aetius' approval was required as well, which at this time was basically the equivalent of requiring imperial authority. Justinian was later to make the appointment of *discussores* entirely an imperial prerogative (*CJ* 10.30.4pr. [530]).
[1163] *CTh*. 1.5.6 (358).

Valentinian II and established that superindictions were not legal unless authorized by the emperor. This law more directly suggests corruption on the part of the prefects since it states that "no provincial shall pay anything in the name of a superindiction on the sole authority of letters of the prefect".[1164] A prefect must have been caught issuing superindictions without their emperor's permission.

Legal evidence for prefectural corruption may be sparse, but our historical sources view such high-level corruption as commonplace. The most famous example is that of John the Cappadocian, whose greed and malice are attacked by our two most detailed (albeit hostile) sources for the prefecture of the sixth century.[1165] Another famous example is that of Julian's prefect Florentius. When Florentius approached Julian with a superindiction for him to sign, Julian instead investigated the tax records and discovered that the government's needs could be met entirely through the existing methods.[1166] When settling affairs for the winter, Julian left Florentius in charge of Belgia II under the condition that he not raise taxes through force, which shows that Julian expected him to abuse his authority if he had no clear instructions not to.[1167]

Other examples of overtaxation are common, but they are less detailed and separating fact from rhetoric can be difficult. A good example is Valentinian's prefect of Italy and Illyricum, Probus, who Ammianus blames for not restraining (and even encouraging) the emperor's greed.[1168] The harshness of Probus' tax policy was legendary at the time, and is mentioned not only by Ammianus but by Zosimus and Jerome as well.[1169] The main complaint seems to be that Valentinian collected too much of his taxes

---

[1164] "Nihil superindictorum nomine ad solas praefecturae literas […] exsolvat" (*CTh*. 11.6.1 [382]). This practice had already been illegal for decades since we see Julian being presented with his prefect's proposed superindiction for approval in 359 (Amm. Marc. 17.3.5, tr. Pharr).

[1165] Proc. *BV* 3.13.12-20; Lydus, *Mag*. 3.57; Kelly 2004, 34-36. A large part of Lydus' hatred for John comes from the reforms undertaken during his tenure with the intent of streamlining the office. From the perspective of John and the emperor Justinian (who continued to favor John even after his fall) this streamlining would have reduced the staff required to managed the prefecture while increasing the efficiency of the system. For Lydus, the quintessential bureaucrat, this was a meaningless goal that drained men of learning and character from the prefecture. See Carney 1971b; Kelly 2004, 11-104.

[1166] Amm. Marc. 17.3.2-4.

[1167] Amm. Marc. 17.3.6.

[1168] Amm. Marc. 30.5.5-6. See also den Boeft et al. 2015, 112-113.

[1169] Hier. *Chron*. a. 372; Zos. 4.16.1.

from the devastated regions. Indeed, it has been suggested that Jerome's flight to take up the ascetic life in Antioch was in fact an example of Ammianus' claim that distinguished families fled from the region.[1170] Trying to squeeze taxes from devastated provinces was a common complaint, and a particularly ineffective means of raising supplies since it reduced taxpayers to penury or flight.

The few restrictions on a prefect's power must have been a great temptation for abuse. The ubiquity of such abuse is clear from a minor anecdote in John Lydus. He describes how his relative, the prefect, rewarded him for his panegyric with a *solidus* per line.[1171] This was an official reward for service and came from the prefectural chest rather than his relative's pocket.[1172] Taxpayer money was used, not to pay for supplies, but to reward a minor bureaucrat for his praise of the prefect. Lydus' lack of shame (and indeed his pride) in telling this story shows just how common such wastages of taxpayer money must have been.

3. Conclusions

Effectiveness and efficiency were frequently mutually exclusive ideals. Effectiveness required large surpluses in order to handle unexpected difficulties while efficiency required that soldiers be supplied with the bare minimum needed. As such there was an unavoidable conflict between the two goals. When efficiency and effectiveness came into conflict, effectiveness was almost invariably favored. Keeping the army supplied was the entire purpose of the supply system, and the consequences of failure were too high to risk. A failure to feed the army could result in mutiny or destruction. The army was the most important power block in the late Roman state and leaving it unsupplied was not a failure that could be tolerated. Whenever efficiency would reduce the effectiveness of the system it was deprioritized to ensure the army's survival.

[1170] Schmidt-Hofner 2008, 118 n. 4.
[1171] Lydus, *Mag*. 3.27.
[1172] Bandy 1983, xi-xii; Kelly 2004, 52.

Gathering the bare minimum needed for the current circumstances was not advisable since it would limit the flexibility of the Roman state. If substantial stockpiles were not available then any setback or loss of supplies to enemy action (a not uncommon occurrence) would result in the Roman army starving, a situation that the emperors were keen to avoid at all costs. A certain amount of wastage was necessary, in short, in order to be reliable enough to ensure the army's welfare.

This is not to say that efficiency was not a concern of the late Roman state. The emperors constantly demonstrated their concern with disorder and inefficiency when collecting and distributing supplies. Laws demanding the expansion of paperwork, spreading responsibility for corruption as widely as possible, and punishing certain types of official were all designed to improve efficiency. What ties these reforms together is that they deal with corruption rather than attempt systematic reform. The distinction is key. Abuses were a form of waste that benefited individuals at the expense of the intended beneficiaries. As such, the emperors could crack down on them hard without any risk of endangering the effectiveness of their supply line. Indeed, such reforms benefitted the system by increasing the revenue coming to the state.

When it came to restructuring the system to make it more efficient the efforts were less effective. Diocletian obviously provides a successful example of an effort to rationalize a confusing system by means of centralization and standardization, even if his changes were not as extensive as is sometimes stated. Valentinian and Valens attempted a major reform on this scale, but these reforms went nowhere as they then spent the next several years granting exemptions and undoing their initial work.[1173] These were the two major attempts to improve the overall efficiency of the system.

The difficulty was that any effort to improve efficiency would require closer central government involvement in the provinces. By maintaining a hands-off approach and leaving the actual collection and transport of supplies in the hands of local authorities, the emperors were able to benefit from cheap curial labor. Efforts such as those of Valens and Valentinian were doomed because they tried to rely on individuals

[1173] See page 165.

whose social status was not based around the fulfillment of civic obligations. A genuine attempt to create an efficient system would have meant the introduction of new, paid officials and the administration to appoint and oversee them. The municipal systems were the most inefficient part of the system but had to be tolerated because they were what kept the costs of the commissariat so low.

Efforts to stamp out corruption were similarly limited by government reluctance to get involved. While the emperors were happy to be seen as champions of justice and punish corrupt officials brought to their attention, this relied entirely on the drive and resources of locals willing to bring the case to imperial attention. This often involved great expense and was a gamble. As shown by the case of Romanus, failed prosecutions could come with serious consequences.[1174] To truly cut down on corruption would have required the creation of positions for hunting out corrupt officials at state expense. Without this, low level officials could rely on their anonymity and high level ones their power and connections for immunity from prosecution.

The other changes to the system throughout late antiquity were all primarily concerned with making sure that the government benefitted as much as it could from the taxes raised. In this category falls the return to a land tax gathered in coin. This was the single largest change to the late antique taxation system but it made the system more complicated by requiring the additional step of selling the grain before paying it in taxes, only to then use this coin to purchase grain for the army at set rates. The successful changes to the municipal taxation system were likewise concerned with effectiveness. The sale of offices and near permanent posts given to already powerful local elites can only have increased the unfairness of tax-gathering procedures. Priority was given to a reliable supply.

The two prefectural posts created during this period were likewise more concerned with the issue of effectiveness than efficiency. The surpluses raised by the supply prefect in the Anastasian War clearly demonstrate where the priority lay. If they had been intended primarily to make the supply system more efficient then there was no

[1174] Amm. Marc. 28.6. See page 159.

reason to wait until the start of a war to send them out. Wars always required a higher level of waste than peacetime, simply to ensure that the soldiers were effectively fed. The use of supply prefects may or may not have been more efficient than the existing system (although having two prefects issuing orders within the region is likely to have decreased rather than increased efficiency) but the temporary nature of the position shows that it was primarily created to ensure the army's survival rather than as a permanent way of reducing inefficiency.

The *quaestor exercitus* was similarly created to make army supply more effective. A group of such disparate provinces connected under a single administration could not help but be inefficient, yet it could ensure that the soldiers in the garrisons were reliably supplied. With the *quaestor* though, we must consider the limitations that the emperors were working under. Accepting the need to keep troops stationed on the Danubian frontier as a given there was no solution to the problem that could be anything but inefficient. The solution they came up with was as efficient as it could have been under the circumstances.

The modifications made to the supply system over the centuries were designed to ensure its effectiveness. Of all the major modifications to the system, the only ones concerned with improving efficiency were the tax official reforms of Valentinian and Valens, and these were quickly abandoned. In general, developments after Diocletian were in the direction of improved effectiveness over improved efficiency. In the sixth century in particular, the earlier efforts at uniformity was replaced with regionally diverse methods that adapted the system to local needs in exchange for improved reliability. Effectiveness and efficiency were two sides of the same coin. Ideally a system would be both, but in practice the improvement of one meant a decline in the other. The emperors always knew which took priority.

Conclusion

The late Roman army used to be seen as a debased and inferior version of the army that had conquered the Mediterranean during the Republic and Principate.[1175] Recent studies have rightly modified this view and present the late Roman army as a highly effective institution.[1176] While the Western empire did ultimately fall, the fourth-century Roman army remained the most potent force in the Mediterranean basin. The Roman Empire maintained a standing army in the hundreds of thousands, deployed across a vast area, and was generally able to keep them supplied as needed. While Rome could no longer consider itself without serious rivals, its armies largely continued to hold their own against their neighbors. The military efficacy of these forces presupposes a commissariat of equal efficacy, and the fundamental concern of this thesis has been to elucidate the evolution and underpinnings of that commissariat, and assess its performance. The main advances in understanding which this thesis has proposed will be highlighted below, but first the significance of the late Roman commissariat can be further appreciated by placing it in the context of subsequent developments across the longue durée of European history.

* * *

The late Roman commissariat was an institution of unparalleled scope and was unlike any that would be seen in Europe for over a millennium. The medieval kingdoms that followed kept many of the same laws and institutions, yet despite this adaptation of proven methods the system began to fall apart and within a century they were unable to match the Roman commissariat for effectiveness *or* efficiency. The Franks came closer than anyone in Europe to reestablishing the Roman Empire, but even under Charlemagne their logistical methods were primitive. Charlemagne set aside the produce of his royal estates to pay for his armies and set aside as much as two-thirds of the land in some

---

[1175] Gibbon 1781a, 174-182; Gibbon 1781b, 187; Rostovtzeff 1957, 510-512; Ferrill 1986, 47-50, 83-85, 152-153.

[1176] Bury 1923, 308-313, provides an early example of the rejection of military decline as an explanation for Rome's fall. For more recent examples see Lee 1998, 232-237; Nicasie 1998, esp. 97-116; Elton 2007; Lee 2007, esp. 9-14.

regions as grazing for his army.[1177] This shows the attention he paid towards matters of supply, but it was still far more personal and limited than the Roman model. Even this was exceptional though, since soldiers were expected to pay for the first three months of provisions themselves.[1178] Unsurprisingly the Franks suffered recurrent supply failures.

Two centuries earlier, Gregory of Tours was able to describe a process of supply in Merovingian Gaul that sounded much more similar to the Roman model. Supplies were gathered from the local countryside and placed in granaries in advance so that the army could resupply itself as it passed through.[1179] But already it is clear that there are problems. The army sent against Milan in 590 suffered repeated supply problems. First the army plundered the countryside while still in Frankish territory and then they found themselves needing to rely on plunder in Italy since they did not bring enough food to supply themselves. After three months in Italy the army was starving and had to return home.[1180]

What caused the surviving elements of the Roman commissariat to disappear in the two centuries between Gregory and Charlemagne? The most obvious answer is the decline of the cities and the gradual extinction of the curial class. Just as in the surviving empire in the East, the western kingdoms were forced to replace their city councilors with powerful magnates in order to keep the supply system running. We can see some evidence for this in what is called the "commissariat law" in the *Visigothic Code*.[1181] This law decrees that food supplies (annona) are to be collected for storage in cities and key forts, but the figures responsible for this collection are royal governors or other chosen nobles. The curials are not a factor. Unlike the East, even this solution seems to have fallen apart in favor of entirely makeshift supply chiefs chosen because they were judged able to achieve the goal. It has been suggested that Charlemagne selected the sites

[1177] Halsall 2003, 126-130, 149-151.
[1178] Bachrach & Bachrach 2017, 109-111.
[1179] Greg. Tur. *HF* 7.24, 7.35, 8.30.
[1180] Greg. Tur. *HF* 10.3.
[1181] *LV* 9.2.6. King 1972, 72, has used this to argue that this means the Visigoths maintained a (small) standing army, but Halsall 2003, 60, rightly points out that there is no mention made of such a force and that this is almost certainly describing preparations made for a military campaign. Likely the Frankish preparations described by Gregory would have looked similar in the laws.

of monastic foundations along major highways with care so that he could rely on them to provide supplies for his armies as they passed through.[1182] New circumstances meant different hierarchies.

If it was the decline of cities that led to the collapse of the old Roman commissariat it is worth asking why a similarly advanced system took so long to appear after the regrowth of cities during the medieval period. It certainly was not due to a lack of interest in the Roman past. The Roman way of doing things was considered an exemplar among the educated classes and that this extended to military matters as can be seen by the intense interest in Vegetius, whose work has been described as “the most influential military manual in use during the Middle Ages”.[1183]

There are some signs of centralization in the late middle ages. In England, Edward I started the use of the “prise system” to make compulsory purchases for his army under the same authority he used to make purchases for his household. [1184]While this was clearly more centralized than simply having his soldiers provide their own food or the infamous *chevauchée* ravaging it can hardly be said to be as efficient as the Roman system. Prices for grain do not seem to have been set at standard rates and the variation between what different sheriffs claimed they paid for the grain is extreme enough that we are likely looking at serious cases of corruption.[1185]

It might be thought that the Early Modern Era contained the ideal conditions for a return to an advanced commissariat, with expanding cities, increased government centralization, and standing armies, but while there were changes it was not until after the Thirty Years’ War that the states of Europe were able to establish even an effective commissariat. The supply methods used during that conflict were atrocious. There was no official in the army with overall responsibility for logistical functions so it became the duty of the unit commander to ensure that his men were fed.[1186] Since tax revenue only came in once a year this need was met through a combination of short-term loans and the

---

[1182] Halsall 2003, 126-130.
[1183] Lester 1988, 7. See also Allmand 2011.
[1184] Bradbury 2004, 279.
[1185] Prestwich 1998, 278.
[1186] Perjés 1970, 31-35 (139-143).

Kontributionssystem. The latter was a system of extortion (more extreme than even the medieval chevauchée) whereby the army took what it wanted from the populace where it was stationed regardless of whether they were enemy, ally, or neutral.[1187] The officers would use the money extracted in this way to pay off their loans and purchase more food and supplies. It is hard to think of a way that the system could be less efficient. It was not effective either since supply shortages and delays were common. The supply system was so poor that it could ruin campaigns. A French army invading Flanders in 1635 started off with 22,000 infantry and 4,500 cavalry but by mid-June this had shrunk to 13,000 foot and 4,000 horse and by the end of the year to less than 8,000 foot and 2,000 horse, despite having received reinforcements in July. Losses to desertion of between 50 and 75% were typical.[1188]

It was in the aftermath of this war that the commissariats started to improve. The office of quartermaster general started appearing immediately after the war and there were other innovations that ensured the devastation that the war brought to Germany would not recur.[1189] The system to arise out of this devastation was advanced and comparable to the Roman one in the level of organization it required, but otherwise bore no similarities to what came before. Instead of a system reliant on unpaid civic elites, the system of the Early Modern Period was based around banking. Banking had been one of the innovations of the Middle Ages and had nothing really comparable in the Classical Era. What banking gave the Early Modern commissariats was the ability to raise money at any point without the need for sudden and time-consuming tax gathering. Instead of small personal loans by generals and their armies, the state was able to take out large loans based on the reliability of the nation. Maurice of Orange was the first to figure this out in the 1620s, and once the Thirty Years' War died down the Netherlands' example was followed by the other European powers.[1190]

The complete disappearance of Roman methods of supply needs some explanation given their successes and the perception of success which they carried

[1187] Parrott 1995, 241-244.
[1188] Parrott 1995, 244.
[1189] Perjés 1970, 31-35 (139-143).
[1190] Parker 1995, 46-48.

throughout the Middle Ages. With their example close to hand why did nobody try to follow their example, particularly given the popularity of Vegetius as a reliable handbook to contemporary warfare? What unique set of circumstances made the late Roman commissariat suitable for that government and not the ones that followed? The most obvious element which no subsequent European state was able to match was their sheer size. The Carolingian Empire managed to rule an area about half the size of the Western Roman Empire but it only managed to hold this territory for a little under a century and for most of that time it was divided into three or more kingdoms. Without the resources of a vast area to draw on no European state could match the Roman's strength.

Another element that was missing from medieval states were the powerful communal civic organizations of the Classical era. The *curiae* were at the heart of the Roman supply system since they provided the manpower and connections necessary to perform the taxgathering function. While civic institutions continued to exist in the Middle Ages, and were growing in importance by the Early Modern Era, the power base of the nobility was the countryside. The nobility was naturally suspicious of the idea of giving control over taxation to the cities and the merchant communities that dominated there, yet by their very nature they were incapable of filling the role held by curials themselves. Powerful and independent lords in command of well-fortified castles did not make for good servants.

It is worth remembering too that the supply methods described here were not those used for the majority of Rome's lifespan. In western Europe the late Roman commissariat was operational for less than two centuries. In some areas it was barely operational for one and in others it was not operational at all. Many of the countries that make up modern Europe would have been enemy territory to the Romans. The supply system which developed in the empire during the third century was in many ways the aberration rather than the rule. It could only develop with a powerful and organized central authority after centuries of subordinate but important civic elites coming to terms with raising taxes on behalf of a larger state rather than just their own city.

This thesis opens opportunities for further study in this area. By establishing the groundwork for the late Roman period it provides a point of comparison for studies in the successor kingdoms. How were Roman supply methods adapted to suit the needs of the new inhabitants of the land and how many elements of the system continued into medieval Europe? Why were Roman logistical methods ignored when so many other aspects of their military success were imitated? Comparison with earlier periods is also possible. The commissariat of the late Roman period developed out of the supply methods of the Principate and the study of supply methods in that period can benefit from reference to later material. To what extent did the municipal liturgies change during the later empire and how much do they represent a line of continuity?

*   *   *

Having placed the late Roman commissariat in the context of subsequent developments in European history, and thereby gained a greater appreciation of the circumstances and conditions which facilitated its evolution in the third and fourth centuries, it remains to review the most important advances to understanding which this thesis has proposed. Many of the areas under discussion have already received attention in earlier scholarship, but there has never been an attempt to consider the functioning of the late Roman commissariat as a whole. At the most general level, this thesis has aimed to provide a detailed assessment of the operation of the late Roman commissariat over time. The thesis has argued that the late Roman commissariat was a unified system, despite being spread out between various hierarchies and areas of authority. The commissariat officials together formed a single functional unit that operated from the fourth through the early seventh century with largely minor modifications. This unit was a loose one that allowed for great flexibility and adaptation, and it was highly effective at keeping the army supplied.

Within this broader argument, the thesis has made particular contributions of importance on a number of fronts. First, it has offered a clearer understanding of how the office of praetorian prefect evolved during the third century from one with primarily military duties to one whose primary duties involved administrative oversight of the supply of the army. By focusing on the growing emphasis on their supply duties during the third century, especially in the context of eastern campaigns, the thesis has been able to follow the shift in their priorities and show how the logistical system transitioned into the better-documented one of the fourth century.

Secondly, the thesis has demonstrated the value of using the twin criteria of effectiveness and efficiency as a means of assessing the potential and limitations of the late Roman commissariat. Since “quality” is a vague concept, and one prone to interpretations that are essentially moral judgements, this approach allows for a better understanding of the nuances of what success or failure meant for the various groups affected by the logistical system. By considering the question of efficiency from multiple viewpoints, this thesis shows that there can be no overarching definition that encompasses the goals of all parties. The Roman commissariat was only inefficient from the viewpoint of the taxpayers and municipal officials. For the Roman state, access to free labor in the form of liturgies made the system very efficient. Inefficiency was often a necessary part of Roman supply methods since it was needed to ensure effectiveness. When effectiveness and efficiency are conflated, this vital factor is easier to overlook since the system was generally very effective at keeping the army supplied. Only by distinguishing between these two goals is it possible to recognize the benefits and drawbacks of the system and which groups were most affected by them.

Turning in more detail to the subject matter of the individual chapters, the Roman commissariat of late antiquity was much more carefully structured than the one of the early empire (Chapter 1). The largest difference between the late and early imperial commissariats was the expansion of the central administration. While early imperial armies had relied on the provincial governors to keep the armies they commanded supplied, the later empire relied upon a more tightly structured system based on four regional prefectures and a network of praetorian and municipal figures serving in independent but connected hierarchies. This change in structure was closely tied to the changing nature of the praetorian prefect. The praetorian prefect gained wide-ranging power over the armies during their service as regents to a series of child-emperors (Elagabalus through Alexander Severus and Gordian III) in the early third century. These powers included the oversight for the supply of the army, which by necessity involved an oversight for taxation and provincial administration. Despite at least one attempt to remove these powers from the prefect, the administrative authority already granted to the prefects in the first part of the century ensured that the prefects' control over supply only grew.

The late Roman army mainly relied on the grain raised from the land tax (*annona militaris*) to feed its army (Chapter 2). While they had access to other means of raising supplies, these were strictly secondary and meant to supplement the grain raised in this way. Although the praetorian prefects' role in the taxation system represents a centralization of authority, the collection of taxes remained highly localized. The main movers of the system were municipal officials chosen by the various cities and who served under a variety of titles. The considerable regional variations meant that the system as outlined in the law codes was never identical to the system used in practice. Centralization was most visible in the supervisory role that the prefects assumed and in the appearance of prefectural officials sent to monitor or speed up the process. Centralization made the tax system highly flexible. The prefect's annual budget meant that the government could vary the amount of tax revenue raised depending on local circumstances and could solve a wide range of difficulties by the transfer of tax revenue between the provinces. Supplies needed beyond this could be acquired through superindictions or forced purchases. In this way, the mix of centralized and decentralized authority increased the potential for the system and allowed for it to be highly adaptable.

The empire's ability to store and transport its supplies was just as important as its ability to raise them, and in this area too the Roman commissariat was well equipped (Chapter 3). There were a variety of officials capable of transporting supplies for long distances by land and sea, and granaries in all the major cities of the empire capable of storing vast quantities of grain for the army. While determined to ensure its continued functioning, the state actually had little direct involvement with the transport and storage of supplies. Rather than state officials, the main individuals responsible were municipal magistracies serving under a liturgical obligation. This is true from the susceptors and *praepositi horreorum* who managed the granaries to the *navicularii* and other liturgists who transported supplies to be stored in them. The state's role was simply to delineate their obligations and check to ensure that these obligations were being met. While similarly decentralized, the situation of officials responsible for distribution and for transport on campaign was different. These officials were appointed by the military commanders and had no connection to the cities.

The army was supplied through means of this basic system throughout late antiquity, with only minor adjustments, but the empire itself underwent some changes in the fifth and sixth centuries that required adaptations of the existing system. The largest change was the largely stationary nature of the emperors after Theodosius I. Large armies relied on an imperial commander, with a praetorian prefect at his side to oversee the supplies. Fourth-century emperors had been military commanders with experience commanding armies. The stationary nature of later emperors and prefects meant that new approaches needed to be taken to ensure the supply of the army.

There were several adaptations needed to accommodate the unique situations that arose during the fifth and sixth century (Chapter 4). The earliest permanent change was the transition back to a coin-based land tax in the late fourth and early fifth century. This increased the flexibility of the commissariat, since they could now stockpile surpluses without danger of decay and transport taxes more easily, but it did so at the expense of efficiency. Now grain was sold for coin to pay the taxes, and that coin was then used to purchase further grain. The late fifth century saw further changes to the taxation system through the addition of new tax supervisors such as *vindices* and *praepositi pagorum*. These officials were a replacement for the exactors, but they were not applied systematically or universally. Their presence demonstrates both a shift away from liturgical officials and a decline in the standardization of top level positions in the taxation system. The regional variations that had been present throughout late antiquity were now getting more formal recognition.

Another change during the fifth century was the use of prefectural officials as supply chiefs for important armies. The supply prefects arose to compensate for the absence of emperors (and their accompanying prefects) from campaigns after Theodosius I. While small campaigns could be conducted while the prefect remained in Constantinople, larger expeditions required a powerful quartermaster general who could remain with the army and respond to emergencies as they occurred. Having to send back to Constantinople for authorization to requisition or transfer supplies was not practical. It was still possible for the regular prefects to raise supplies, but their transport and preparation required rapid decisions that distant prefects simply could not provide. The presence of a quartermaster general in the campaign zone made the commissariat more adaptable and responsive to change.

The *quaestor exercitus* was another prefectural official placed at the head of army supply. The quaestor is like the supply prefect in many ways, and demonstrates the willingness of the sixth-century Roman state to experiment with new positions and new methods. Like the *vindices* and the *praepositi pagorum* (and to a lesser degree the increasingly standardized supply prefects), the *quaestor exercitus* demonstrated a willingness to allow broader regional variations than had previously been permissible. While the quaestor cannot be considered entirely effective, it was successful enough that the armies on the Danube did not starve, and it did this with minimal resources taken from provinces outside the *quaestura*. It had been made largely self-sufficient. In many ways these changes represent the beginning of the end for the fourth century supply system as irregular positions became more common (even at the highest levels) and the liturgical officials decline in power.

The Roman empire was highly effective at keeping its army supplied (Chapter 5). While there are several failed campaigns during this period, the only one where starvation was a danger was Julian's Persian campaign. The effectiveness of the Roman commissariat was built on its ability to call on a large surplus of supplies. The scale of the empire and its ability to transport the necessary supplies from one region of the empire to the other prevented any local supply difficulties from becoming ruinous. Because of this, the commissariat was able to be flexible and adapt to changing circumstances in a way that their barbarian opponents simply could not. Even during civil wars, where conflicting lines of authority had the potential to place supply lines in danger, the emperors were generally able to access sufficient reserves to keep their armies supplied.

While the commissariat was effective at keeping the army supplied, this often came at the cost of efficiency. The efficiency of any supply system is dependent on keeping as small a surplus as possible, which ran directly contrary to the goal of effectiveness. For that reason the emperors were not overly concerned with keeping the supply system efficient. The major exception was their treatment of corruption. Since corruption did not aid the creation of surpluses or improve the effectiveness of the commissariat in any meaningful way this was an area where the emperors could reduce the amount taken from provincials in taxation without decreasing the amount held by the state.

* * *

Finally, it remains to suggest various ways in which the advances of this thesis might be pursued in various directions in future work. First, by establishing a clearer understanding of the commissariat in the late Roman period, the thesis provides a point of comparison for studies in the western successor kingdoms. Although this Conclusion has sketched out some of the differences, there remains scope for more detailed work on this subject. How were Roman supply methods adapted to suit the needs of the new inhabitants of the land and how many elements of the system continued into medieval Europe? Why were Roman logistical methods ignored when so many other aspects of their military success were imitated?

Secondly, comparison with earlier periods is also possible. The commissariat of the late Roman period developed out of the supply methods of the Principate and the study of supply methods in that period can benefit from reference to later material. In particular, to what extent did the municipal liturgies change during the later empire and how much do they represent a line of continuity?

Thirdly, the efficiency/effectiveness approach has potential application in the study of commissariats in other periods of history, and is also potentially useful for areas of research outside of the commissariat. It is often difficult to assess the success of administrative organizations since there are so many different definitions of success. A straight tally of an administration's accomplishments does not seem adequate as a lone measure of success any more than an account of their expenditure of resources would be. If the two considerations of efficiency and effectiveness are not considered independently, the costs risk being ignored in favor of the more easily definable achievements. The two considerations together, however, provide a means of assessing an administration’s success without placing an overreliance on bare achievements. As this thesis has demonstrated, they certainly provide a valuable and novel approach to assessing the performance of the late Roman commissariat.

Bibliography

Primary Sources

Abinnaeus, Flavius. *Archive*. Edited and translated by H.I. Bell, V. Martin, E.G. Turner, and D van Berchem. Oxford: Clarendon Press, 1962.

Agathias. *The Histories*. Edited by Rudolfus Keydell. Berlin: Walter De Gruyter, 1967. Translated by Joseph D. Frendo. Berlin: Walter De Gruyter., 1975.

Ammianus Marcellinus. *Res Gestae*. Edited and translated by John C. Rolfe. Cambridge, MA: Harvard University Press, 1935.

"Anonymous Continuator of Cassius Dio". In Karl Müller, ed. *Fragmenta Historicorum Graecorum*, Vol. 4. Paris: Institutum Franciae Typographo, 1851: 191-199.

"Anonymus Valesianus". In Ammianus Marcellinus. *Res Gestae*. Edited and translated by John C. Rolfe. London: William Heinemann, 1939.

Aristides, Publius Aelius. *Orationes*. Edited by Bruno Keil. Berlin: Weidmann, 1963. Translated by Charles A. Behr. Leiden: Brill, 1986.

Athanasios of Emesa. *Das Novellensyntagma des Athanasios von Emesa*. Edited and translated by Dieter Simon and Spyros Troianos. Frankfurt: Löwenklau, 1989.

Augustine of Hippo. *Sermons*. Edited by Marcella Recchia. Rome: Nuova Biblioteca Agostiniana, 1986. Translated by Edmund Hill. Hyde Park: New City Press, 1994.

Aurelius Victor, Sextus. *Liber De Caesaribus*. Edited by Pierre Dufraigne. Paris: Les Belle Lettres, 1975. Translated by H.W. Bird. Liverpool: Liverpool University Press, 1994.

Cassiodorus, Magnus Aurelius. *Variae*. Translated by S.J.B. Barnish. Liverpool: Liverpool University Press, 1992.

Cedrenus, George. *Σύνοψις Ἱστορία* (*Compendium Historiarum)*. Edited by B.G. Niebuhr. Bonn: Corpus Scriptorum Historiae Byzantinae, 1838.

"Chronicle of 1234". In *The Seventh Century in the West-Syrian Chronicles*. Translated by Andrew Palmer. Liverpool: Liverpool University Press: 111-121.

"Chronicle of Edessa, The" In B. Harris Cowper, ed. *The Journal of Sacred Literature, New Series,* Vol. 5. London: Williams and Norgate, 1864: 28-45. <http://www.tertullian.org/fathers/chronicle_of_edessa.htm>.

Chronicon Paschale. Edited by Ludwig August Dindorf. Bonn: Impensis ed. Weberi, 1832. Translated by Michael and Mary Whitby. Liverpool: Liverpool University Press, 1989.

Claudian. *In Eutropium*. Edited and translated by Maurice Platnauer. Cambridge, MA: Harvard University Press, 1922.

Dio, Cassius. *Roman History*. Edited and translated by Earnest Carey. Cambridge, MA: Harvard University Press, 1927.

Epitome de Caesaribus. Edited by Franz Pichlmayr and Roland Gruendel. Leipzig: B. G. Teubner, 1966. Translated by Thomas M. Banchich. Buffalo: Canisius College Translated Texts, 2009.

Eugippius. *The Life of Saint Severinus*. Edited by Theodor Mommsen. Berlin: MGH, 1898. Translated by George W. Robinson. Cambridge, MA: Harvard University Press, 1914.

Eunapius. "History". In Blockley 1983: 2-150.

Eunapius. *Lives of the Philosophers and Sophists*. Edited and translated by Wilmer Cave Wright. London: William Heinemann, 1921.

Eusebius. *Ecclesiastical History*. Edited and translated by Kirsopp Lake. Cambridge, MA: Harvard University Press, 1926.

Eusebius. *Life of Constantine*. Edited by F. Winkelmann. Berlin: Akademie-Verlag, 1975. Translated by Averil Cameron and Stuart G. Hall. New York: Oxford University Press, 1999.

Eutropius. *Breviarum*. Edited by Hans Droysen. Berlin: Monumenta Germaniae Historica, 1878. Translated by H.W. Bird. Liverpool: Liverpool University Press, 1993.

Evagrius. *Ecclesiastical History*. Edited by J. Bidez and L. Parmentier. London: Methuen, 1898. Translated by Michael Whitby. Liverpool: Liverpool University Press, 2000.

Frontinus, Sextus Julius. *Strategemata*. Edited and translated by Charles E. Bennett. Cambridge, MA: Harvard University Press, 1925

Gaius. *Institutes*. Edited and translated by Francis de Zalueta. Oxford: Clarendon Press, 1946.

George of Sykeon. *Vie de Théodore de Sykéôn*. Edited and translated by André-Jean Festugière. Brussels: Société des Bollandistes, 1970.

Herodian. *Histories*. Edited and translated by C.R. Whittaker. Cambridge, MA: Harvard University Press, 1969.

Herodotus. *The Histories*. Edited by A. D. Godley. Cambridge, MA: Harvard University Press. 1920. Edited by Robert B. Strassler. Translated by Andrea L. Purvis. New York: Pantheon Books, 2007.

Historia Augusta. Edited and translated by David Magie. London: William Heinemann, 1974.

Hyginus Gromaticus. "De Condicionibus Agrorum". Edited by Karl Lachmann. In *Gromatici Veteres*. Berlin: George Reimer, 1848: 115-123.

Isidore of Seville. *The Etymologies*. Edited by W.M. Lindsay. Oxford: Oxford University Press, 1911. <http://penelope.uchicago.edu/Thayer/E/Roman/Texts/Isidore/home.html>.

Jerome. *Chronicle*. Edited by José Miguel Blasco Ibáñez. Translated by Roger Pearse et al. 2005. <http://www.tertullian.org/fathers/index.htm#JeromeChronicle>.

John of Antioch. *Historia Chronica*. Edited and translated by Sergei Mariev. Berlin: Walter de Gruyer, 2008.

John of Ephesus. *Ecclesiastical History*, *Third Part*. Translated by E.W. Brooks. Leuven: Corpus Scriptorum Christianorum Orientalium, 1936.

John of Lydia. *On Powers or The Magistracies of the Roman State*. Translated by Anastasius C. Bandy. Philadelphia: American Philosophical Society, 1983.

John of Lydia. *On the Months (De Mensibus)*. Edited by Anastasia Bandy, Demetrios J. Constantelos, and Craig J. N. de Paulo. Translated by Anastasius C. Bandy. Lewiston: Edwin Mellen Press, 2013.

John of Nikiu. *Chronicle*. Translated by R.H. Charles. London: Williams & Norgate, 1916. <http://www.tertullian.org/fathers/nikiu2_chronicle.htm>.

Julianus, Flavius Claudius. *Letter to the Athenians*. Edited and translated by Wilmer C. Wright. Cambridge, MA: Harvard University Press, 1923.

Julianus, Flavius Claudius. *Misopogon*. Edited and translated by Wilmer C. Wright. Cambridge, MA: Harvard University Press, 1913.

Julian. *Epitome Iuliani*. Edited by Gustav Hänel. Osnabrück: Otto Zeller, 1965.

Jus Graeco-Romanum III: Novellae Constitutiones Imperatorum Post Justinianum. Edited by Karl Eduard Zachariae von Lingenthal. Leipzig: T.O. Weigel, 1857.

Justinian. *The Codex of Justinian*. Edited by Bruce W. Frier. Translated by Fred H. Blume. Cambridge: Cambridge University Press, 2016.

Justinian. *Digest of Justinian, The*. Edited by Theodor Mommsen and Paul Krueger. Translated by Alan Watson. Philadelphia: University of Pennsylvania Press, 1985.

Justinian. *Novellae Constitutiones et Edicta*. Edited by Rudolf Schöll and Wilhelm Kroll. Berlin: Weidmann, 1895. Translated by Fred H. Blume. <http://www.uwyo.edu/lawlib/blume-justinian/ajc-edition-2/novels/index.html>.

Lactantius. *De Mortibus Persecutorum*. Edited and translated by J.L. Creed. Oxford: Clarendon Press, 1984.

Leo VI. *Taktica*. Editred and translated by G. T. Dennis. Washington DC: Dumbarton Oaks, 2010.

Libanius. *Autobiography and Selected Letters*, Vol. 2. Edited and translated by A.F. Norman. Cambridge, MA: Harvard University Press, 1992.

Libanius. *Selected Works*, Vol. 1. Edited and translated by A.F. Norman. London: William Heinemann, 1969.

Libanius. *Selected Works*, Vol. 2. Edited and translated by A.F. Norman. London: William Heinemann, 1977.

Lucian of Samosata. *The Ship*. Edited and translated by K. Kilburn. London: William Heinemann, 1959.

Malalas, John. *The Chronicle*. Edited by Ioannes Thurn. Berlin: Walter De Gruyter, 2000. Translated by Elizabeth Jeffreys, Michael Jeffreys, and Roger Scott. Melbourne: Australian Association for Byzantine Studies, 1986.

Malchus. “History”. In Blockley 1983: 402-462.

Marcellinus Comes. *The Chronicle of Marcellinus*. Translated by Brian Croke. Sydney: Australian Association for Byzantine Studies, 1995.

Martial. *Epigrams*. Edited and translated by D. R. Shackleton Bailey. Cambridge, MA: Harvard University Press, 1993.

Maurice. *Strategikon*. Edited and translated by George T. Dennis. Vienna: Apud Academiam Scientiarum Austriacam, 1981. Philadelphia: University of Pennsylvania Press, 1984.

Menander the Guardsman. *The History*. Edited and translated by R.C. Blockley. Liverpool: Francis Cairns, 1985.

Michael the Syrian. *The Syriac Chronicle of Michael Rabo*. Translated by Matti Moosa. Teaneck, NJ: Beth Antioch Press, 2014.

Movses Dasxurants'i. *History of the Aghuans*. Translated by Robert Bedrosian. <http://www.attalus.org/armenian/mdtoc.html>.

Nikephoros Kallistos Xanthopoulos. *Ecclesiastical History*. Edited by Jacques-Paul Migne. *Patrologia Græca*, Vol. 145-147. Paris: Traditio Catholica, 1865.

Nikephoros, Patriarch of Constantinople. *Breviarum Historiae*. Edited and translated by Cyril Mango. Washington DC: Dumbarton Oaks, 1990.

Notitia Dignitatum. Edited by Otto Seeck. Frankfurt: Minerva, 1962.

Olympiodorus. "History". In Blockley 1983: 152-220.

Optatus of Milevis. *Against the Donatists*. Edited by Karl Ziwsa. Vienna: F. Tempsky, 1893. Translated by Mark Edwards. Liverpool: Liverpool University Press, 1997.

Orosius, Paulus. *Seven Books of History against the Pagans* (*Historiae Adversum Paganos*). Edited by Karl Zangemeister. Vienna: Corpus Scriptorum Ecclesiasticorum Latinorum, 1882. Translated by A. Fear. Liverpool: Liverpool University Press, 2010.

Panegyrici Latini. Edited by Roger Mynors. Oxford: Clarendon Press, 1964. Translated by C.E.V. Nixon and Barbara Saylor Rodgers. Berkeley: University of California Press.

Patricius, Magonus Sucatus. *Epistola ad Coroticum*. Edited and translated by Ludwig Bieler. Dublin: Royal Irish Academy, 1993.

Paulinus of Nola. *Letters*. Edited by Guilelmi de Hartel. Vienna: F. Tempsky, 1894. Translated by P.G. Walsh. London: Longmans, Green & Co, 1967.

Peter the Patrician. *The Lost History of Peter the Patrician*. Translated by Thomas M. Banchich. London: Routledge, 2015.

Philostorgius. *Church History*. Translated by Philip R. Amidon. Atlanta: Society of Biblical Literature.

Pliny the Elder. *Natural History*. Edited and translated by H. Rackham. Cambridge, MA: Harvard University Press, 1938.

Polybius. *The Histories*. Edited and translated by W.R. Paton. London: William , Priscus. “History”. In Blockley 1983: 222-400.

Procopius of Caesarea. *Anecdota*. Edited by Henry Bronson Dewing. London: William Heinemann, 1935. Translated by Anthony Kaldellis. Indianapolis: Hackett Publishing, 2010.

Procopius of Caesarea. *Buildings*. Edited and translated by Henry Bronson Dewing. London: William Heinemann, 1940.

Procopius of Caesarea. *The Wars of Justinian*. Edited and translated by Henry Bronson Dewing. London: William Heinemann, 1914-1928. Revised by Anthony Kaldellis. Indianapolis: Hackett Publishing, 2014.

Pseudo-Joshua the Stylite. *The Chronicle*. Translated by Frank R. Trombley and John W. Watt. Liverpool: Liverpool University Press, 2000.

Pseudo-Zachariah Rhetor. *The Chronicle of Pseudo-Zachariah Rhetor: Church and War in Late Antiquity*. Translated by Robert R. Phenix and Cornelia B. Horn. Liverpool: Liverpool University Press, 2011.

Sebeos. *The Armenian History Attributed to Sebeos*. Translated by R.W. Thompson. Liverpool: Liverpool University Press.

Severus, Patriarch of Antioch. *Letters*. Edited and translated by E. W. Brooks. Oxford: Williams and Norgate, 1902. Qqe

Shapur I. *Shapur on the Ka’ba-ye Zartosht*. Edited by André Maricq. In Maricq 1958. Translated by Richard N. Frye. In Richard N. Frye. *The History of Ancient Iran*. Munich: Verlag C.H. Beck, 1984.

Sidonius Apollinaris. *Carmina*. Edited and translated by W.B. Anderson. London: William Heinemann, 1936.

Socrates Scholasticus. *Historia Ecclesiastica*. Edited by Günther Christian Hansen. Berlin: Akademie Verlag, 1995. Translated by A.C. Zenos. Grand Rapids: Wm. B. Eerdmans, 1890: 1-178.

Sozomen, Salminius Hermias. *Historia Ecclesiastica*. Edited by Joseph Bidez and Günther Christian Hansen. Berlin: Akademie Verlag, 1960. Translated by Chester D. Hartranft. Grand Rapids: Wm. B. Eerdmans, 1890: 1-178.

Statius. *Silvae*. Edited and translated by J. H. Mozley. Cambridge, MA: Harvard University Press, 1928.

Suetonius Tranquillus, Gaius. *Lives of the Caesars*. Edited and translated by J.C. Rolfe. Cambridge, MA: Harvard University Press, 1914.

Syncellus, George. *Εκλογή Χρονογραφίας* (*Chronographia*). Edited by Barthold Georg Niebuhr. Bonn: Corpus Scriptorum Historiae Byzantinae, 1829.

Synesius of Cyrene. *Letters*. Edited by Antonius Garzya. Rome: Istituto poligrafico e zecca dello Stato, 1979. Translated by Augustine Fitzgerald. London: Oxford University Press, 1926.

al-Tabari, Abu Ja'far Muhammad ibn Jarir. *The History,* Vol. 5. Translated by C.E. Bosworth. Albany: State University of New York Press, 1999.

Tacitus, Cornelius. *Annals*. Edited and translated by John E. Jackson. Cambridge, MA: Harvard University Press, 1931.

Theodorus Scholasticus of Hermopolis. *Theodori Epitome Novellarum*. Edited by Karl Eduard Zachariae. Leipzig: Johann Ambrosius Barth Verlag, 1843. Translated by Jacek Wiewiorowski. In Wiewiorowski 2006: 325.

Theodosian Code, *The*. Edited by Paul Krueger. Berlin: Weidmann, 1877. Translated by Clyde Pharr, Theresa Sherrer Davidson, and Mary Brown Pharr. Princeton: Princeton University Press, 1952.

Theophanes the Confessor. *The Chronicle*. Edited by Carl Gotthard de Boor. Leipzig: B.G. Teubner, 1883. Translated by Cyril Mango and Roger Scott. Oxford: Clarendon Press, 1997.

Theophylact Simocatta. *The History*. Edited by Carl Gotthard de Boor and P. Wirth. Stuttgart: B.G. Teubner, 1972. Translated by Michael and Mary Whitby. Oxford: Clarendon Press, 1986.

Ulpianus, Gnaeus Domitius Annius. *Libri Singularis Regularum Reliquiae*. Edited by P.E. Huschke. Leipzig: B.G. Teubner, 1886.

Vegetius Renatus, Flavius. *Epitoma Rei Militaris*. Edited by Leo F. Stelten. New York: P. Lang, 1990. Translated by N. P. Milner. Liverpool. Liverpool University Press, 1993.

Victor Vitensis. *Historia Persecutionis Africanae Provinciae*. Edited by Charles Halm. Berlin: Weidmann, 1879. Translated by John Moorhead. Liverpool: Liverpool University Press, 1992.

Visigothic Law. Edited by K. Zeuner. Hanover: Monumenta Germaniae Historica, 1902.

Zonaras, John. *The History*. Edited by John Augustus Henry Tittmann. Leipzig: Siegfried Leberecht Crusius, 1808. Translated by Thomas M. Banchich and Eugene N. Lane. London: Routledge, 2009.

Zosimus. *New History*. Edited by François Paschoud. Paris: Les Belles Lettres, 1971-1986. Translated by Ronald T. Ridley. Melbourne: Australian Association for Byzantine Studies, 1982.

SECONDARY SOURCES

Absil, Michel, 1997. *Les Préfets du Prétoire d'Auguste à Commóde*. Paris: De Boccard.

Adams, Colin, 2007. *Land Transport in Roman Egypt*. Oxford: Oxford University Press.

Adams, John Paul, 1976. *Logistics of the Roman Imperial Army.* Yale University PhD Thesis.

Adams, John Paul, 1979. "The Roman Imperial Army in the East: Social and Governmental Problems". *Ancient World* 2, No. 4: 129-137.

Allmand, Christopher, 2011.*The De Re Militari of Vegetius: The Reception, Transmission and Legacy of a Roman Text in the Middle Ages*. Cambridge: Cambridge University Press.

Anderson, James D., 1992. *Roman Military Supply in North-East England*. Oxford: BAR Series.

Arnaud, Pascal, 2007. "Diocletian's Prices Edict: The Prices of Seaborne Transport and the Average Duration of Maritime Travel." *JRA* 20: 321-336.

Arnheim, M.T.W., 1970. "Vicars in the Later Roman Empire". *Hist.* 19, No. 5: 593-606.

Bachrach, Bernard S, 1993. "Animals & Warfare in Early Medieval Europe". In Bernard S. Bachrach, ed. *Armies and Politics in the Early Medieval West*. Aldershot: Variorum: 708–751.

Bachrach, Bernard S., and David S. Bachrach, 2017. *Warfare in Medieval Europe, c. 400-c. 1453*. New York: Routledge.

Badian, Ernst, and Tony Honoré, 2012. “Quaestor”. In Simon Hornblower, Antony Spawforth, and Esther Eidinow, eds. *The Oxford Classical Dictionary* 4th Edition. Oxford: Oxford University Press: 1249.

Bagnall, R.S., 1989. “Fourth-Century Prices: New Evidence and Further Thoughts”. *ZPE* 76: 69-76.

Bagnall, Roger S., 1993. *Egypt in Late Antiquity*. Princeton: Princeton University Press.

Bagnall, Roger S., 2005. “Evidence and Models for the Economy of Roman Egypt”. In J.G. Manning and Ian Morris, eds. *The Ancient Economy: Evidence and Models*. Stanford: Stanford University Press: 187-204.

Baker, Derek, 1976. “Theodore of Sykeon and the historians”. In Derek Baker, ed. *The Orthodox Churches and the We*st. Oxford: Basil Blackwell: 83-96.

Barnes, Timothy D., 1982. *The New Empire of Diocletian and Constantine*. Cambridge, MA: Harvard University Press.

Barnish, Sam, A.D. Lee, and Michael Whitby, 2000. “Government and Administration”. In Averil Cameron, Bryan Ward-Perkins, and Michael Whiby, eds. *Cambridge Ancient History*, Vol. 14 2nd Ed. Cambridge: Cambridge University Press: 164-206.

Behr, Charles A. 1981. *Aelius Aristides: Orations*, Vol. 2. Leiden: E.J. Brill.

Bell, Gertrude, 1982. *The Churches and Monasteries of the Ṭur ʿAbdin*. Commentary and notes by Marlia Mundell Mango. London: Pindar Press.

Bérard, François, 1984. “La Carrière de Plotius Grypus et le Ravitaillement de l’Armée Impériale en Campagne”. *Mélanges de l’Ecole française de Rome* 96: 259-324.

Beresford, James, 2013. *The Ancient Sailing Season*. Leiden: Brill.

Berger, Adolf, 1953. *Encyclopedic Dictionary of Roman Law*. Philadelphia: American Philosophical Society.

Bevan, Edwyn, 1968. *The House of Ptolemy*. Chicago: Argonaut.

Bidwell, Paul, and Stephen Speak, 1994. *Excavations at South Shields Roman Fort*, Vol. 1. Newcastle: Society of Antiquaries of Newcastle upon Tyne.

Billings, John D., 1887. *Hardtack and Coffee*. Boston: George M. Smith & Co.

Bingham, Sandra, 2013. *The Praetorian Guard*. Waco: Baylor University Press.

Birley, Anthony R., 1966. *Marcus Aurelius*. New York: Routledge.

Birley, Anthony R., 1998. “Decius Reconsidered”. In Edmond Frézouls and Hélène Jouffroy, eds. *Les empereurs illyriens*. Strasbourg: AECR: 57-80.

Bleckmann, Bruno, 1997. “Honorius und das Ende des römischen Herrschaft in Westeuropa”. *Hist.* 265, No. 3: 561-595.

Blockley, R.C., 1981. *The Fragmentary Classicising Historians of the Later Roman Empire*, Vol. 1. Leeds: Francis Cairns.

Blockley, R.C., ed. and trans., 1983. *The Fragmentary Classicising Historians of the Later Roman Empire*, Vol. 2. Leeds: Francis Cairns.

Boak, A.E.R., 1915. "The Roman *Magistri* in the Civil and Military Service of the Empire". *Harvard Studies in Classical Philology* 26: 73-164.

Bounegru, Octavian, and Mihail Zahariade, 1996. *Les Forces Navales du Bas Danube et de la Mer Noire Aux I^{er}–VI^{e} Siècles*. Oxford: Oxbow Books.

Bowman, Alan K., 1976. "Papyri and Roman Imperial History, 1960-75". *JRS* 66: 153-173.

Bowman, Alan K., 2005. "Diocletian and the First Tetrarchy, AD 284-305". In Bowman, Garnsey & Cameron 2005: 67-89.

Bowman, Alan K., Peter Garnsey, and Averil Cameron, eds, 2005. *Cambridge Ancient History,* Vol. 12 2nd Ed. Cambridge: Cambridge University Press.

Bowman, Alan K., Peter Garnsey, and Dominic Rathbone, eds, 2005. *Cambridge Ancient History,* Vol. 11 2nd Ed. Cambridge: Cambridge University Press.

Bowman, A.K., and D. Rathbone, 1992. "Cities and Administration in Roman Egypt". *JRS* 82: 107–127.

Bradbury, Jim, 2004. *The Routledge Companion to Medieval Warfare*. London: Routledge.

Brunt, P.A., 1975. "The Administrators of Roman Egypt." *JRS* 65: 124-147.

Burgess, R.W., 2008. "The Summer of Blood: The 'Great Massacre' of 337 and the Promotion of the Sons of Constantine". *DOP* 62: 5-51.

Bury, J.B., 1923. *History of the Later Roman Empire,* Vol. 1. New York: Dover, 1958.

Caldwell, Craig H., 2012. “The Balkans”. In Scott Fitzgerald Johnson, ed. *The Oxford Handbook of Late Antiquity*. Oxford: Oxford University Press: 92-114.

Cameron, Averil, 1985. *Procopius and the Sixth Century*. London: Routledge.

Cameron, Averil, ed, 1995. *The Byzantine and Early Islamic Near East*, Vol. 3. Princeton: Darwin Press.

Cameron, Averil, and Peter Garnsey, eds., 1998. *Cambridge Ancient History*, Vol. 13 2nd Ed. Cambridge: Cambridge University Press.

Campbell, J. Brian, 2006. “Aerarium militare”. Hubert Cancik and Helmuth Schneider, eds. *Brill’s New Pauly*. [Online]. Available at <http://referenceworks.brillonline.com/entries/brill-s-new-pauly/aerarium-militare-e12218890> [Accessed 8 Jun 2015].

Campbell, Brian, 2012. *Rivers and the Power of Ancient Rome*. Chapel Hill: University of North Carolina Press.

Capponi, Livia, 2005. *Augustan Egypt*. New York: Routledge.

Carney, T.F., 1971. *Bureaucracy in Traditional Society*. Lawrence, KA: Coronado Press.

Carney, T.F., 1971a. “A Survey of Roman and Byzantine Bureaucracies”. In Carney 1971.

Carney, T.F., 1971b. “Byzantine Bureaucracy from Within”. In Carney 1971.

Carney, T.F. 1973. “Prosopography: Payoffs and Pitfalls”. *Phoenix* 27: 156-179.

Casey, P.J., 1994. *Carausius and Allectus*. London: B.T. Batsford.

Casey, P.J., 1996. "Justinian, the *Limitanei*, and Arab-Byzantine Relations in the Sixth Century". *JRA* 9: 214-222.

Casson, Lionel, 1950. "The Isis and Her Voyage". *Transactions and Proceedings of the American Philological Association* 81: 43-56.

Casson, Lionel, 1971. *Ships and Seamanship in the Ancient World*. Princeton: Princeton University Press.

Casson, Lionel, 1992. *Travel in the Ancient World* 2nd Ed. Baltimore: Johns Hopkins University Press.

Chastagnol, André, 1987. "Les préfets du prétoire de Constantin". In *L'Italie et l'Afrique au Bas-Empire: Études administratives et prosopographiques*. Presses Universitaires de Lille: 179-210.

Chastagnol, André, 1989. "Un nouveau préfet du prétoire de dioclétien: Aurelius Hermogenianus". *ZPE* 78: 165-168.

Chaumont, M.L., 2011. "Antioch (1)". *Encyclopædia Iranica*. [Online]. Available at <http://www.iranicaonline.org/articles/antioch-1-northern-syria>. (accessed on 4 June 2014).

Chevallier, Raymond, 1976. *Roman Roads*. Translated by N.H. Field. London: B.T. Batsford.

Christie, Neil, and Alexander Sarantis, eds, 2013. *War and Warfare in Late Antiquity*. Leiden: Brill.

Chrysos, E.K., 1971. "Die angebliche Abschaffung der städtischen Kurien durch Kaiser Anastasios". *Byzantina* 3: 93-102.

Claude, Dietrich, 1969. *Die byzantinische Stadt im 6 Jahrhundert*. Munich: C.H. Beck.

Clemens, Lukas, 2001. "Sankt Irminen: Römisches Wohnquartier, spätantike Speicheranlagen (horrea) und frühmittelalterliche Klostersiedlung". In H.P. Kuhnen, ed. *Das römische Trier, Führer zu archäologischen Denkmälern in Deutschland* 40. Stuttgart: 166-175.

Collingwood, R.G., and F. Haverfield, 1920. "The Provisioning of Roman Forts". *Cumberland and Westmorland Antiquarian and Archaeological Society* 20: 127-142.

Collins, Rob, 2012. *Hadrian's Wall and the End of Empire*. London: Routledge.

Contamine, Philippe, 1984. *War in the Middle Ages*. Translated by Michael Jones. Oxford: Blackwell.

Cooper, John P., 2014. *The Medieval Nile*. Cairo: American University in Cairo Press.

Corbier, Mireille, 1991. "City Territory and Taxation" In John Rich and Andrew Wallace-Hadrill, eds. *City and Country in the Ancient World*. London: Routledge.

Corbier, Mireille, 2000. "Coinage and Taxation: The State's Point of View". In Bowman, Cameron, and Garnsey 2000: 327-392.

Corbier, Mireille, 2005. “Coinage and Taxation: The State’s Point of View, A.D. 193-337”. In Bowman, Garnsey & Cameron 2005: 327-392.

Corbier, Mireille, 2006. “Munus, Munera”. Hubert Cancik and Helmuth Schneider, eds. *Brill’s New Pauly*. [Online]. Available at <http://dx.doi.org/10.1163/1574-9347_bnp_e812060>. [Accessed 31 October 2016].

Corcoran, Simon, 1996. *The Empire of the Tetrarchs*. Oxford: Clarendon Press.

Coşkun, Altay, 2004. “Die Praefecti praesent(al)es und die Regionalisierung der Praetorianerpraefecturen im vierten Jahrhundert”. *Millennium* 1: 279-328.

Criscuolo, Lucia, and Giovanni Geraci, eds., 1989. *Egitto e storia antica. Dall'ellenismo all'età araba*. Bologna: Cooperativa Libraria Universitaria Editrice Bologna.

Croke, Brian, 1984. “Marcellinus on Dara: A Fragment of His Lost ‘De Temporum Qualitatibus et Positionibus Locorum’”. *Phoenix* 38, No. 1: 77-88.

Crook, John, 1955. *Consilium Principis*. Cambridge: Cambridge University Press.

Curta, Florin, 2001. *The Making of the Slavs*. Cambridge: Cambridge University Press.

Dąbrowa, Edward, 2007. “Naval Operations During Persian Expedition of Emperor Julian (363 AD)”. In Ariel S. Lewin and Pietrina Pellegrini, eds. *The Late Roman Army in the Near East from Diocletian to the Arab Conquest*. Oxford: BAR International Series: 237-242.

Dalby, Andrew, 2003. *Food in the Ancient World from A to Z*. London: Routledge.

Davies, C.S.I., 1963. "Les rations alimentaires de l'armée et de la marine anglaise au XVI^e^ siècle". *Annales. Économies, Sociétés, Civilisations* 18, No. 1: 139-141.

Delaplace, Christine, 2015. *La fin de l'Empire romain d'Occident*. Rennes: Presses Universitaires de Rennes.

de Blois, Lukas, 2001. "Roman Jurists and the Crisis of the Third Century A.D. in the Roman Empire". In Lukas de Blois, ed. *Administration, Prosopography and Appointment Policies in the Roman Empire*. Amsterdam: J.C. Gieben: 136-153.

Delmaire, Roland, 1989. *Largesses sacrées et res privata: L'aerarium impérial et son administration du IV^e^ au VI^e^ siècle*. Rome: École Française de Rome.

Deligiannakis, Georgios, 2008. "The Economy of the Dodecanese in Late Antiquity". In Charikleia Papageorgiadou-Banis and Angeliki Giannikouri, eds. *Sailing in the Aegean: Readings on the Economy and Trade Routes*. Athens: National Hellenistic Research Foundation: 209-233.

Deligiannakis, Georgios, 2016. *The Dodecanese and the Aegean Islands in Late Antiquity, AD 300-700*. Oxford: Oxford University Press.

den Boeft, Jan, Jan Willem Drijvers, Daniël den Hengst, and H.C. Teitler, 2015. *Philological and Historical Commentary on Ammianus Marcellinus XXX*. Leiden: Brill.

Devijver, Hubert, 1989. "L'Égypte et l'histoire de l'armée romaine". In Criscuolo & Geraci 1989: 37-54.

Dixon, Karen R., and Pat Southern, 1996. *The Late Roman Army*. London: Routledge, 2000.

Dore, J.N., and J.P. Gillam, 1979. *The Roman Fort at South Shields*. Newcastle: Society of Antiquaries.

Downey, Glanville, 1939. *A Study of the Comites Orientis and the Consulares Syriae*. Princeton.

Drinkwater, John F., 1987. *The Gallic Empire*. Stuttgart: Franz Steiner Verlag.

Duncan-Jones, Richard, 1990. *Structure and Scale in the Roman Economy*. Cambridge: Cambridge University Press.

Duncan-Jones, Richard, 1994. *Money and Government in the Roman Empire*. Cambridge: Cambridge University Press.

Durry, Marcel, 1968. *Les Cohortes Prétoriennes*. Paris: Éditions E. De Boccard.

Eck, Werner, 2000. "The Growth of Administrative Posts". In Bowman, Garnsey, and Rathbone 2000: 238-265.

Eck, Werner, 2006. "Praefectus castrorum". In *Brill's New Pauly* [Online]. Edited by Hubert Cancik and Helmuth Schneider. Available at <http://referenceworks.brillonline.com/entries/brill-s-new-pauly/praefectus-e1006960>. [Accessed 9 August 2014].

Eck, Werner, and Kirsten Groß-Albenhausen, 2006. "Rationibus, a". Hubert Cancik and Helmuth Schneider, eds. *Brill's New Pauly*. [Online]. Available at

<http://referenceworks.brillonline.com/entries/brill-s-new-pauly/rationibus-a-e1019060> [Accessed 25 May 2015].

Eiden, H., 1949. “Untersuchungen an den spätrömischen Horrea von St. Irminen in Trier”. *Trierer Zeitschrift für Geschichte und Kunst des Trierer Landes und seiner* 18: 73-98.

Elton, Hugh, 1996. *Warfare in Roman Europe, AD 350-425*. Oxford: Clarendon Press.

Elton, Hugh, 2005. “Military Supply and the South Coast of Anatolia in the Third Century AD”. In Stephen Mitchell and Constantina Katsari, eds. *Patterns in the Economy of Roman Asia Minor*. Swansea: Classical Press of Wales: 289-304.

Encyclopædia Britannica, Vol. 6 11th Ed. Edited by Hugh Chisholm. Cambridge: Cambridge University Press 1911.

Engels, Donald W., 1978. *Alexander the Great and the Logistics of the Macedonian Army*. Berkeley: University of California Press.

Enßlin, W., 1939. “The Senate and the Army”. In S.A. Cook, F.E. Adcock, M.P. Charlesworth, and N.H. Baynes, eds. *Cambridge Ancient History*, Vol. 12. Cambridge: Cambridge University Press: 57-95.

Erdkamp, Paul, 1998. *Hunger and the Sword*. Amsterdam: J.C. Gieben.

Evans, James Allan, 2005. *The Emperor Justinian and the Byzantine Empire*. London: Greenwood.

Ferrill, Arther, 1986. *The Fall of the Roman Empire*. London: Thames & Hudson.

Fink, Robert O., 1971. *Roman Military Records on Papyrus*. London: Case Western Reserve University.

Finley, Moses I., 1973. *The Ancient Economy*. London: Chatto and Windus.

Finley, Moses I., 1985. *Ancient History: Evidence and Models*. New York: Viking.

Foss, Clive F.W., 1991. “Opsikion”. In Kazhdan 1991: 1528-1529.

Foxhall, L., and H.A. Forbes, 1982. “Σιτομετρεία: The Role of Grain as a Staple Food in Classical Antiquity”. *Chiron* 12: 41-90.

Frakes, Robert M., 2001. *Contra Potentium Iniurias: The Defensor Civitatis and Late Roman Justice*. Munich: C.H. Beck.

Fuchs, Jördis, 2011. *Spätantike militärische horrea an Rhein und Donau*. PhD Thesis. Vienna.

Fuhrmann, Christopher J., 2012. *Policing the Roman Empire: Soldiers, Administration, and Public Order*. Oxford: Oxford University Press.

Galliou, Patrick, 1981. “Western Gaul in the Third Century”. In Anthony King and Martin Henig, eds. *The Roman East in the Third Century*. Oxford: BAR International Series: 259-286.

Garnsey, Peter, 1983. “Grain for Rome”. In Peter Garnsey, Keith Hopkins, and C.R. Whittaker, eds. *Trade in the Ancient Economy*. Berkeley: University of California Press, 118-130.

Garnsey, Peter, 1988. *Famine and Food Supply in the Graeco-Roman World: Responses to Risk and Crisis*. Cambridge: Cambridge University Press.

Gascou, Jean, and Denis Feissel, 1995. “Documents d’archives romains inédits du Moyen Euphrate (IIIe s. après J-C): I. Les pétitions (P.Euphr. 1 à 5)”. *Journal des Savants* 1: 65-119.

Gibbon, Edward. *The History of the Decline and Fall of the Roman Empire*, Vol. 1 (1776), Vol. 2 (1781a), Vol. 3 (1781b). Edited by J.B. Bury. London: Methuen, 1925.

Gilliver, Kate, 2007. “The Augustan Reforms and the Structure of the Imperial Army”. In Paul Erdkamp, ed. *A Companion to the Roman Army*. Oxford: Blackwell: 183-200.

Gizewski, Christian, 2006. “Eminentissimus”. Hubert Cancik and Helmuth Schneider, eds. *Brill’s New Pauly*. [Online]. Available at <http://referenceworks.brillonline.com/entries/brill-s-new-pauly/eminentissimus-e329850> [Accessed 8 June 2015].

Goffart, Walter, 1974. *Caput and Colonate: Towards a History of Late Roman Taxation*. Toronto: University of Toronto Press.

Goffart, Walter, 1980. *Barbarians and Romans, AD 418–584*. Princeton: Princeton University Press.

Goldsworthy, Adrian, 1996. *The Roman Army at War, 100 BC-AD 200*. Oxford: Clarendon Press.

Goldsworthy, Adrian, 2009. *How Rome Fell: Death of a Superpower*. New Haven: Yale University Press.

Gračanin, Hrvoje, and Jana Škrgulja, 2014. “The Ostrogoths in Late Antique Southern Pannonia”. *Acta Archaeologia Carpathica* 49: 165-205.

Graham, Alexander John,1974. “The Limitations of Prosopography in Roman Imperial History (With Special Reference to the Severan Period)”. In Hildegard Temperini, ed. *Aufstieg und Niedergang der römischen Welt* 2.1. Berlin: Walter de Gruyer: 136-157.

Greatrex, Geoffrey, 1998. *Rome and Persia at War, 502-532*. Leeds: Francis Cairns.

Grierson, Philip, 1951. “The Isaurian Coins of Heraclius”. *Numismatic Chronicle and Journal of the Royal Numismatic Society* 11, No. 41: 56-67.

Grinter, P., 2007. “Seeds of Destruction: Conflagration in the Grain Stores of Dichin”. In Poulter 2007: 279-285.

Groß-Albenhausen, Kirsten, 2006a. “Perfectissimus.” Hubert Cancik and Helmuth Schneider, eds. *Brill’s New Pauly*. [Online]. Available at <http://referenceworks.brillonline.com/entries/brill-s-new-pauly/perfectissimus-e913420> [Accessed 2 May 2015].

Groß-Albenhausen, Kirsten, 2006b. “Vacantes”. In *Brill’s New Pauly* [Online]. Edited by Hubert Cancik and Helmuth Schneider. Available at <http://referenceworks.brillonline.com/entries/brill-s-new-pauly/vacantes-e1226620>. [Accessed 2 June 2014].

Grosse, Robert E., 1920. *Römische Militärgeschichte von Gallienus bis zum Beginn der byzantinischen Themenverfassung*. Berlin: Weidmann.

Guest, P., 2007. “Coin Circulation in the Balkans in Late Antiquity”. In Poulter 2007: 295-308.

Gutsfeld, Von Andreas, 1998. “Der Prätorianerpräfekt und der kaiserliche Hof im 4. Jahrhundert n. Chr.” In Aloys Winterling, ed. *Comitatus: Beiträge zur Erforschung des spätantiken Kaiserhofes*. Berlin: 75-102.

Gutsfeld, Andreas, 2006. “Vicarius”. Hubert Cancik and Helmuth Schneider, eds. *Brill’s New Pauly*. [Online]. Available at <http://referenceworks.brillonline.com/entries/brill-s-new-pauly/vicarius-e12203980> [Accessed 25 May 2015].

Gwynn, David M., ed. *A. H. M. Jones and the Later Roman Empire*. Leiden: Brill.

Haarer, Fiona K., 2006. *Anastasius I: Politics and Empire in the Late Roman World*. Cambridge: Francis Cairns.

Haarer, Fiona K., 2015. “Developments in the Governance of Late Antique Cities”. In Umberto Roberto and Laura Mecella, eds. *Governare e riformare l’impero al momento della sua divisione: Oriente, Occidente, Illirico*. Rome: Publications de l’École française de Rome. <http://books.openedition.org/efr/2815?lang=de#ftn46> [Accessed 28 July 2017].

Habermann, Wolfgang, 1990. “Statistische Datenanalyse an den Zolldokumenten des Arsinoites aus römischer Zeit II,” *Münsterische Beiträge zur antiken Handelsgeschichte* 9, No. 1: 50-94.

Haldon, John F., 1984. *Byzantine Praetorians*. Bonn: Dr. Rudolf Habelt.

Haldon, J.F., 1990. *Byzantium in the Seventh Century*. Cambridge: Cambridge University Press.

Haldon, John, 1999a. *Warfare, State and Society in the Byzantine World, 565-1204*. London: Routledge.

Haldon, John, 1999b. “Theory and Practice in Tenth-Century Military Administration”. *Travaux et Mémoires* 13: 201-352.

Haldon, John, 2005. “Feeding the Army: Food and Transport in Byzantium, *ca* 600-1100”. In Wendy Mayer and Silke Trzcionka, eds. *Feast, Fast or Famine*. Brisbane: Australian Association for Byzantine Studies: 85-100.

Haldon, John, ed, 2006. *General Issues in the Study of Medieval Logistics*. Leiden: Brill.

Halsall, Guy, 2003. *Warfare and Society in the Barbarian West 450–900*. London: Routledge.

Hammond, Mason, 1959. *The Antonine Monarchy*. Rome: American Academy in Rome.

Hanson, Victor Davis, 1980. *Warfare and Agriculture in Ancient Greece*. Stanford University PhD Thesis.

Harper, Kyle, 2008. “The Greek Census Inscriptions of Late Antiquity”. *JRS* 98: 83-119.

Harries, Jill, 1999. *Law & Empire in Late Antiquity*. Cambridge: Cambridge University Press.

Hauken, Tor, 1998. *Petition and Response: An Epigraphic Study of Petitions to Roman Emperors, 181-249*. Bergen: Norwegian Institute at Athens.

Heather, Peter, 1998. "Senators and Senates". In Cameron & Garnsey 1998: 184-210.

Heather, Peter, 2005. *The Fall of the Roman Empire*. London: MacMillan.

Heather, Peter, 2008. "Running the Empire: Bureaucrats, Curials, and Senators". In Gwynn 2008: 97-119.

Hebblewhite, Mark, 2017. *The Emperor and the Army in the Later Roman Empire, AD 235-395*. London: Routledge.

Hekster, Olivier, 2002. *Commodus: An Emperor at the Crossroads*. Amsterdam: J.C. Gieben.

Hendy, Michael, 1972. "Mint and Fiscal Administration under Diocletian, His Colleagues, and His Successors A.D. 305-224". *JRS* 62: 75-82.

Hendy, Michael F., 1985. *Studies in the Byzantine Monetary Economy c. 300-1450*. Cambridge: Cambridge University Press.

Hermansen, Gustav, 1982. *Ostia: Aspects of Roman City Life*. Edmonton: University of Alberta Press.

Herz, Peter, 1988a. "Der *praefectus annonae* und die Wirtschaft der westlichen Provinzen". *Ktema* 13: 69-85.

Herz, Peter, 1988b. *Studien zur römischen Wirtschaftsgesetzgebung*. Stuttgart: Franz Steiner Verlag.

Heuberger, Richard, 1971. *Rätien im Altertum und Frühmittelalter: Forschungen und Darstellung*. Innsbruck: Scientia Verlag Aalen.

Hickey, Todd, 2012. *Wine, Wealth, and the State in Late Antique Egypt*. Ann Arbor: University of Michigan Press.

Honoré, Tony, 1982. *Ulpian*. Oxford: Clarendon Press.

Honoré, Tony, 1998. *Law in the Crisis of Empire, 379-455 AD*. Oxford: Clarendon Press.

Hopkins, Keith, 1982. "The Transport of Staples". *Technical Change, Employment and Investment: Eight International Economic History Congress Budapest 1982*. Budapest: 81-87.

Howard-Johnston, James, 1995a. "The Siege of Constantinople in 626". In C. Mango and G. Dagron, eds. *Constantinople and its Hinterland*. Aldershot: Ashgate: 131-142.

Howard-Johnston, James, 1995b. "The Two Great Powers in Late Antiquity: A Comparison". In Cameron 1995: 117-226.

Howard-Johnston, James, 1999. "Heraclius' Persian campaigns and the Revival of the Eastern Roman Empire, 622-630". *War in History* 6: 1-44.

Howe, Laurence Lee, 1942. *The Pretorian Prefect from Commodus to Diocletian (A.D. 180-305)*. Chicago: University of Chicago Press.

Humphries, Mark, 2012. “The Tyrant’s Mask? Images of Good and Bad Rule in Julian’s *Letter to the Athenians*”. In Nicholas Baker-Brian and Shaun Tougher, eds. *Emperor and Author*. Swansea: Classical Press of Wales, 75-90.

Huttner, Ulrich, 2008. “Von Maximinus Thrax bis Aemilianus”. In Klaus-Peter Johne, Udo Hartmann, and Thomas Gerhardt, eds. *Die Zeit der Soldaten-Kaiser*. Berlin: Akademie Verlag, 161-221.

Isaac, Benjamin 1988. “The Meaning of the Terms *Limes* and *Limitanei*”. *JRS* 78: 125-147.

Isaac, Benjamin, 1990. *The Limits of Empire: The Roman Army in the East*. Oxford: Clarendon Press.

Jasny, Naum, 1944. *The Wheats of Classical Antiquity*. Baltimore: Johns Hopkins.

Johnson, Allan Chester, and Louis C. West, 1949. *Byzantine Egypt: Economic Studies*. Amsterdam: Adolf M. Hakkert.

Jones, A.H.M., 1964. “Collegiate Prefectures”. *JRS* 54: 78-89.

Jones, A.H.M., 1964. *The Later Roman Empire: A Social Economic and Administrative Survey*. Norman: University of Oklahoma Press.

Jones, A.H.M., 1971. *The Cities of the Eastern Roman Provinces* 2nd Ed. Oxford: Clarendon Press.

Jones, A.H.M., 1974. *The Roman Economy: Studies in Ancient Economic and Administrative History*. Edited by P.A. Brunt. Oxford: Basil Blackwell.

Jones, A.H.M, J.R. Martindale, and J. Morris, 1971. *The Prosopography of the Later Roman Empire, Vol. 1: A.D. 260-395*. Cambridge: Cambridge University Press.

Jones, Brian W., 1992. *The Emperor Domitian*. London: Routledge.

Jördens, Andrea, 2012. "Government, Taxation, and Law". In Christina Riggs, ed. *The Oxford Handbook of Roman Egypt*. Oxford: Oxford University Press: 56-67.

Kaegi, W.E., 1973. "New Evidence on the Early Reign of Heraclius". *BZ* 66, No. 2: 308-330.

Kaegi, W.E., 1979. "Two Notes on Heraclius". *Revue des études byzantines* 37: 221-227.

Kaegi, Walter Emil, 1981. *Byzantine Military Unrest, 471-843*. Amsterdam: Adolf M. Hakkert.

Kaegi, Walter Emil, 1982. "Two Studies in the Continuity of Late Roman and Byzantine Military Institutions". *BF* 8: 87-113.

Kaegi, Walter E., 2003. *Heraclius, Emperor of Byzantium*. Cambridge: Cambridge University Press.

Kaldellis, Anthony, 2004. *Procopius of Caesarea: Tyranny, History, and Philosophy at the End of Antiquity*. Philadelphia: University of Pennsylvania Press.

Karagiorgou, Olga, 2001. "LR2: A Container for the Military Annona on the Danubian Border?" In Sean Kingsley and Michael Decker, eds. *Economy and Exchange in the East Mediterranean During Late Antiquity*. Oxford: Oxbow: 129-166.

Kazhdan, Alexander P., ed, 1991. *The Oxford Dictionary of Byzantium*. Oxford: Oxford University Press.

Kazhdan, Alexander P., 1991a. “Senator”. In Kazhdan 1991: 1869-1870.

Kazhdan, Alexander P., 1991b. “Theme”. In Kazhdan 1991: 2034-2035.

Kelly, Christopher, 1998. “Emperors, Government and Bureaucracy”. In Cameron & Garnsey 1998: 138-183.

Kelly, Christopher, 2004. *Ruling the Later Roman Empire*. London: Belknap Press.

Kettenhofen, Erich, 1982. *Die römisch-persischen Kriege des 3. Jahrhunderts n. Chr. Nach der Inschrift Šāpuhrs I. an der Ka’be-ye Zartošt (ŠKZ)*. Wiesbaden: Dr. Ludwig Reichert Verlag.

Kettenhofen, Erich, 1983. “The Persian Campaign of Gordian III and the Inscription of Šāpuhr I. at the Ka’be-ye Zartošt”. In Stephen Mitchell, ed. *Armies and Frontiers in Roman and Byzantine Anatolia*. Oxford: BAR International Series 156: 151-171.

Kim, Hyun Jin, 2013. *The Huns, Rome and the Birth of Europe*. Cambridge: Cambridge University Press.

King, P.D., 1972. *Law and Society in the Visigothic Kingdom*. Cambridge: Cambridge University Press.

Kirsten, Ernst, 1958. “Die byzantinische Stadt”. In Franz Dölger, ed. *Berichte zum XI. Internationalen Byzantinisten-Kongress*. Munich: C.H. Beck: 1-48.

Kissel, Theodor K., 1995. *Untersuchungen zur Logistik des römischen Heeres in den Provinzen des griechischen Ostens (27 v. Chr. – 235 n. Chr.)*. St. Katharinen: Scripta Mercaturae Verlag.

Kolb, Anne, 2000. *Transport und Nachrichtentransfer im Römischen Reich*. Berlin: Academie Verlag.

Körner, Christian, 2002. *Philippus Arabs*. Berlin: Walter de Gruyer.

Kulikowski, Michael, 2007. *Rome's Gothic Wars*. Cambridge: Cambridge University Press.

Kyrris, Costas P., 1992. "Cyprus and the Black Sea in the Early Middle Ages: An Outline". In Vassil Gjuzelev, ed. *Bulgaria Pontica Medii Aevi III*. Sofia: St. Clement d'Ochride: 9-17.

Laiou, Angeliki E., & Cécile Morrisson, 2007. *The Byzantine Economy*. Cambridge: Cambridge University Press.

Lallemand, Jaqueline, 1963. *L'administration civile de l'Égypte de l'avènement de Dioclétien à la création du diocèse (284-382)*. Brussels: Palais des Académies.

Laniado, Avshalom, 2002. *Recherches sur les notables municipaux dans l'empire protobyzantin*. Paris: Collège de France.

Laurence, Ray, 1999. *The Roads of Roman Italy*. London: Routledge.

Lavan, Luke, ed., 2001. *Recent Research in Late Antique Urbanism*. Portsmouth, RI: JRA: 89-105.

Leadbetter, Bill, 2009. *Galerius and the Will of Diocletian*. London: Routledge.

Le Bohec, Yann, 1994. *The Imperial Roman Army*. London: B.T. Batsford.

Lee, A.D., 1993. *Information & Frontiers: Roman Foreign Relations in Late Antiquity*. Cambridge: Cambridge University Press.

Lee, A.D., 1998. “The Army”. In Cameron & Garnsey 1998: 211-237.

Lee, A.D., 2007a. “Warfare and the State”. In Sabin, van Wees & Whitby 2007: 379-423.

Lee, A.D., 2007b. *Warfare in Late Antiquity: A Social History*. Oxford: Blackwell.

Lee, A.D., 2013. *From Rome to Byzantium*. Edinburgh: Edinburgh University Press.

Lee, A.D., 2015. “Emperors and Generals in the Fourth Century”. In Johannes Wienard, ed. *Contested Monarchy*. Oxford: Oxford University Press: 100-118.

Leighton, Richard M. “Logistics (Military)”. *Encyclopædia Britannica*. [Online] Available at <https://www.britannica.com/topic/logistics-military#ref511472>.

Lenski, Noel, 2002. *Failure of Empire: Valens and the Roman State in the Fourth Century A.D.* Berkeley: University of California Press.

Lester, Geoffrey, 1988. *The Earliest English Translation of Vegetius de Re Militari*. Heidelberg: Universitätsverlag.

Lewis, Naphtali, 1997. *The Compulsory Public Services of Roman Egypt* 2nd Ed. Florence: Papyrologica Florentina.

Liebeschuetz, J.H.W.G., 1973. “The Origin of the Office of the Pagarch”. *BZ* 66, No. 1: 38–46.

Liebeschuetz, J.H.W.G., 1974. “The Pagarch: City and Imperial Administration in Byzantine Egypt”. *JJP* 18: 163-168.

Liebeschuetz, J.H.W.G., 2001. *Decline and Fall of the Roman City*. Oxford: Oxford University Press.

Liebeschuetz, J.H.W.G., 2007. “The Lower Danube Region under Pressure: From Valens to Heraclius”. In Poulter 2007: 104-134.

Lo Cascio, Elio, 2005. “The Age of the Severans”. In Bowman, Cameron, and Garnsey 2000: 137-155.

Lo Cascio, Elio, 2007. “The Early Roman Empire: The State and the Economy”. In Walter Scheidel, Ian Morris, and Richard Saller, eds. *The Cambridge Economic History of the Greco-Roman World*. Cambridge: Cambridge University Press: 619-647.

Loseby, Simon T., 2012. “Post-Roman Economies” In Walter Scheidel, ed. *Cambridge Companion to the Roman Economy*. Cambridge: Cambridge University Press: 334-360.

Louth, Andrew, 2008. “Byzantium Transforming (600-700)”. In Jonathan Shepard, ed. *The Cambridge History of the Byzantine Empire, c. 500-1453*. Cambridge: Cambridge University Press: 221-248.

Luttwak, Edward, 1976. *The Grand Strategy of the Roman Empire from the First Century AD to the Third*. Baltimore: Johns Hopkins University Press.

Maas, Michael, 1986. “Roman History and Christian Ideology in Justinianic Reform Legislation”. In *DOP* 40: 17-31.

MacCoull, L., 1988. *Dioscorus of Aphrodito: His Word and His World*. Berkeley: University of California Press.

MacGeorge, Penny, 2002. *Late Roman Warlords*. Oxford: Oxford University Press.

MacMullen, Ramsay, 1982. “The Epigraphic Habit in the Roman Empire”. *AJP* 103, No. 3: 233-246.

MacMullen, Ramsay, 1988. *Corruption and the Decline of Rome*. New Haven: Yale University Press.

Madgearu, Alexandru, 1998. “The Last Period of the Danubian Limes (A.D. 576-619)”. In Mihail Zahariade and Ioan Opriş, eds. *The Roman Frontier at the Lower Danube, 4th-6th Centuries*. Bucharest: Romanian Institute of Thracology: 221-228.

Maenchen-Helfen, Otto, 1973. *The World of the Huns: Studies in Their History and Culture*. Berkeley: University of California Press.

Mann, J.C., 1988. “The Organization of *Frumentarii*”. *ZPE* 74: 149-150.

Maricq, André, 1958. “Classica et Orientalia 5: Res Gestae Divi Saporis”. *Syria* 35, No. 3/4: 295-360.

Martindale, J.R., 1980. *The Prosopography of the Later Roman Empire, Vol. 2: A.D. 395-527*. Cambridge: Cambridge University Press.

Martindale, J.R., 1992. *The Prosopography of the Later Roman Empire, Vol. 3: A.D. 527-641*. Cambridge: Cambridge University Press.

Matthews, John F., 2000. *Laying Down the Law*. New Haven: Yale University Press.

Matthews, John, 2006. *The Journey of Theophanes: Travel, Business, and Daily Life in the Roman East*. New Haven: Yale University Press.

Matthews, John, 2007. *The Roman Empire of Ammianus* 2nd Ed. Ann Arbor: Michigan Classical Press.

Mathisen, R.W, 1992. "Fifth-Century Visitors to Italy: Business or Pleasure?" In John Drinkwater and Hugh Elton, eds. *Fifth-Century Gaul: A Crisis of Identity?* Cambridge: Cambridge University Press: 228-238.

McGeer, Eric, 1991. "Praefectus Militum". In Alexander P. Kazhdan, Alice-Mary Talbot, Anthony Cutler, et al., eds. *The Oxford Classical Dictionary of Byzantium*. Oxford: Oxford University Press: 1709.

McGiffert, Arthur Cushman, 1904. "Eusebius: Church History from A.D. 1-324". In Philip Schaff, ed. *Nicene and Post-Nicene Fathers, Series II,* Vol. 1. Grand Rapids: Wm. B. Eerdmans: 81-404.

Meier, Mischa, 2009. *Anastasios I. Die Entstehung des Byzantinischen Reiches*. Stuttgart: Klett-Cotta.

Mennen, Inge, 2011. *Power and Status in the Roman Empire, AD 193-284*. Leiden: Brill.

Merrills, Andy, and Richard Miles, 2010. *The Vandals*. Oxford: Wiley-Blackwell.

Migl, Joachim, 1994. *Der Ordnung der Ämter*. Frankfurt: Peter Lang.

Millar, Fergus, 1964. "Some Evidence on the Meaning of Tacitus 'Annals XII'. 60". *Hist.* 13, No. 2: 180-187.

Millar, Fergus, 1965. "The Development of Jurisdiction by Imperial Procurators: Further Evidence". *Hist.* 14, No. 3: 362-367.

Millar, Fergus, 1977. *The Emperor in the Roman World (31 BC – AD 337)*. London: Duckworth.

Millar, Fergus, 1993. *The Roman Near East (31 BC-AD 337)*. Cambridge, MA: Harvard University Press.

Mitchell, Stephen, 1976. "Requisitioned Transport in the Roman Empire: A New Inscription from Pisidia". *JRS* 66: 106-131.

Mitchell, Stephen, 1993. *Anatolia: Land, Men, and Gods in Asia Minor*, Vol. 2. Oxford: Clarendon Press.

Mitthof, Fritz, 2001. *Annona Militaris: Die Heeresversorgung im spätantiken Ägypten*. Florence: Papyrologica Florentina.

Mommsen, Theodore, 1889. "Das Römische Militärwesen Seit Diocletian". *Hermes* 24: 195-279.

Morimoto Kosei, 1981. *The Fiscal Administration of Egypt in the Early Islamic Period*. Kyoto: Dohosha.

Morrisson, Cécile & Jean-Piere Sodini, 2002. "The Sixth-Century Economy". In Angeliki E. Laiou, ed. *The Economic History of Byzantium: From the Seventh Through the Fifteenth Century*. Washington D.C.: Dumbarton Oaks: 171-220.

Nicasie, M.J., 1998. *Twilight of Empire: The Roman Army from the Reign of Diocletian Until the Battle of Adrianople*. Amsterdam: J.C. Gieben.

Oliver, H., 1978. "The Piety of Commodus and Caracalla and the Εἰς Βασιλέα". *GRBS* 19: 375-388.

Oltean, Ioanna A., 2007. *Dacia: Landscape, Colonisation and Romanisation*. London: Routledge.

Onur, Fatih, 2017. "The Anastasian Military Decree from Perge in Pamphylia. Revised 2nd Edition". *Gephyra* 14: 133-212.

Oost, Stewart Irvin, 1966. "The Revolt of Heraclian". *CPhil.* 61, No. 4: 236-242.

Ostrogorsky, George, 1969. *History of the Byzantine State*. New Brunswick: Rutgers University Press.

ORBIS: The Stanford Geospatial Network Model of the Roman World. Walter Scheidel and Elijah Meeks. < http://orbis.stanford.edu/>.

Pack, Edgar, 2006. "Susceptor". Hubert Cancik and Helmuth Schneider, eds. *Brill's New Pauly*. [Online]. Available at <http://dx.doi.org/10.1163/1574-9347_bnp_e1126290>. [Accessed 22 October 2016].

Palme, Bernhard, 1989. *Das Amt des ἀπαιτητής in Ägypten*. Vienna: Brüder Hollinek.

Palme, Bernhard, 2007. "The Imperial Presence: Government and Army". In *Egypt in the Byzantine World, 200-700*. Edited by Roger S. Bagnall. Cambridge: Cambridge University Press, 226-270

Parker, A.J., 1992. *Ancient Shipwrecks of the Mediterranean & the Roman Provinces*. Oxford: BAR International Series.

Parker, Geoffrey, 1995. "The 'Military Revolution, 1560–1660'—A Myth?" In Roberts 1995: 37-54.

Parrott, David A., 1995. "Strategy and Tactics in the Thirty Years' War: The 'Military Revolution'". In Roberts 1995:227-252.

Parsons, P.J., 1967. "Philippus Arabs and Egypt". *JRS* 57, No. 1/2: 134-141.

Passerini, Alfredo, 1939. *Le Coorti Pretorie*. Rome: Angelo Signorelli.

Patrich, Joseph, 2011. *Studies in the Archaeology and History of Caesarea Maritima: Caput Judaeae, Metropolis Palaestina*. Leiden: Brill.

Perjés, G., 1970. "Army Provisioning, Logistics and Strategy in the Second Half of the 17th Century". *Acta Historica Academiae Scientificarum Hungaricae* 16: 1-52. In

Jeremy Black, ed. *Warfare in Wurope 1650–1792*. Aldershot: Ashgate, 2005: 109-160.

Petersen, Leif Inge Ree, 2013. *Siege Warfare and Military Organization in the Successor States (400-800 AD)*. Leiden: Brill.

Pflaum, Hans-Georg, 1940. “Essai sur le *cursus publicus* dans le Haut-Empire”. *Mémoires présentés à l'Académie des inscriptions et belles-lettres* 14, No. 1: 189-391.

Pflaum, Hans-Georg, 1950. *Les Procurateurs Équestres Sous le Haut-Empire Romain*. Paris: Librairie d’Amérique et d’Orient.

Pflaum, Hans-Georg, 1960. *Les Carrières Procuratoriennes Équestres Sous le Haut-Empire Romain*. Paris: Librairie Orientaliste Paul Geuthner.

Phang, Sara Elise, 2007. “Military Documents, Languages, and Literacy”. In Paul Erdkamp, ed. *A Companion to the Roman Army*. Oxford: Blackwell: 286-305.

Pillon, Michel, 2005. “Armée et défense de l’Illyricum byzantin de Justinien à Héraclius (527-641). De la réorganisation justinienne à l’émergence des ‘armées de cité’”. *Erytheia* 26: 7-85.

Pohl, Walter, 1988. *Die Awaren, Ein Steppenvolk in Mitteleuropa 567-822 n. Chr*. Munich: Verlag C.H. Beck.

Porena, Pierfrancesco, 2003. *La Origini della Prefettura del Pretorio Tardantica*. Rome: L’Erma di Bretschneider.

Porena, Pierfrancesco, 2007. “À l’Ombre de la pourpre: l’évolution de la prefecture du prétoire entre le IVe siècle”. In *Cahiers du Centre Gustave-Glotz* 18. Geneva: Droz: 237-262.

Potter, David S., 1999. *Literary Texts and the Roman Historian*. London: Routledge.

Potter, D.S., 2014. *The Roman Empire at Bay* 2nd Edition. London: Routledge.

Poulter, A.G., ed, 2007. *The Transition to Late Antiquity on the Danube and Beyond*. Oxford: Oxford University Press.

Poulter, A.G., 2007a. “The Transition to Late Antiquity on the Lower Danube: the City, a Fort, and the Countryside”. In Poulter 2007: 51-97.

Prestwich, Michael, 1998. “Military Logistics: The Case of 1322“. In Matthew Strickland, ed. *Armies, Chivalry and Warfare in Medieval Britain and France*. Stanford: Paul Watkins: 276-288.

Purcell, Nicholas, 1983. “The Apparitores: A Study in Social Mobility”. *PBSR* 51: 125-173.

Rankov, N.B., 1990. “*Frumentarii*, the Castra Peregrina and the Provincial Officia”. *ZPE* 80: 176-182.

Rathbone, D.W., 1983. “The Weight and Measure of Egyptian Grains”. *ZPE* 53: 265-275.

Rathbone, Dominic W., 1989. In Criscuolo & Geraci 1989: 159-176.

Rathbone, Dominic, 2007. “Warfare and the State: Military Finance and Supply”. In Sabin, van Wees & Whitby 2007: 158-176.

Rawlinson, George, 1885. *Seven Great Monarchies of the Ancient Eastern World*, Vol. 3. New York: John B. Alden.

Rea, John R., 1996. “Receipt for Pay Advanced by an Actuarius”. *ZPE* 114: 162-164.

Reynolds, P.K. Baillie, 1923. “The Troops Quartered in the *Castra Peregrinorum*”. *JRS* 13: 168-189.

Rhodes, Peter J., 2006. “Liturgy”. Hubert Cancik and Helmuth Schneider, eds. *Brill’s New Pauly*. [Online]. Available at <http://dx.doi.org/10.1163/1574-9347_bnp_e707770>. [Accessed 31 October 2016].

Richmond, I.A., and James McIntyre, 1938/9. “The Agricolan Fort at Fendoch”. *Proceedings of the Society of Antiquaries of Scotland* 73: 110-154.

Rickman, Geoffrey, 1971. *Roman Granaries and Store Buildings*. Cambridge: Cambridge University Press.

Rickman, Geoffrey, 1980. *The Corn Supply of Ancient Rome*. Oxford: Clarendon Press.

Rizos, Efthymios, 2010. *Roman-Christian Peloponnese*. <https://www.academia.edu/17532021/Roman-Christian_Peloponnese>.

Rizos, Efthymios, 2013. “Centres of the late Roman military supply network in the Balkans: a survey of horrea”. *Jahrbuch des Römisch-Germanischen Zentralmuseums* 60: 659-696.

Rizos, Efthymios, 2015. "Remarks on the logistics and infrastructure of the *Annona militaris* in eastern Mediterranean and Aegean Areas". *Antiquité Tardive* 23: 287-302.

Roberts, Andrew, 2014. *Napoleon: A Life*. New York: Viking.

Roberts, Michael, 1995. "The Military Revolution, 1560–1660". In Roberts 1995: 13-36.

Rogers, Clifford, ed., 1995. *The Military Revolution Debate: Readings on the Military Transformation of Early Modern Europe*. Boulder, CO: Westview Press.

Rosser, John, 1985. "The Role of the Great Isthmus Corridor in the Slavonic Invasions of Greece". *BF* 9: 245-253.

Rostovtzeff, M., 1957. *The Social and Economic History of the Roman Empire*, 2nd Ed. Oxford: Clarendon Press.

Rouillard, Germaine, 1928. *L'administration civile de l'Égypte byzantine* 2nd Ed. Paris: Paul Geuthner.

Roth, Jonathan P., 1999. *The Logistics of the Roman Army at War (264 B.C. – A.D. 235)*. Leiden: Brill.

Rowlandson, Jane, 1996. *Landowners and Tenants in Roman Egypt*. Oxford: Clarendon Press.

Sabin, Philip, Hans van Wees, and Michael Whitby (eds.), 2007. *The Cambridge History of Greek and Roman Warfare*, Vol. 2. Cambridge: Cambridge University Press.

Saller, Richard P., 1982. *Personal Patronage Under the Early Empire*. Cambridge: Cambridge University Press.

Salway, R.W.B., 1994. *The Creation of the Roman State, AD 200-340: Social and Administrative Aspects*. DPhil Thesis. Oxford.

Salway, R.W. Benet, 2007. "The Praetorian Prefecture of Africa under Constantine: A Phantom?" In Marc Mayer I Olivé, Giulia Baratta, and Alejandra Guzmán Almagro, eds. *XII Congressus Internationalis Epigraphiae Graecae et Latinae: Provinciae Imperii Romani Inscriptionibus Descriptae*. Barcelona: Monografies de la Secció Històrico-Arqueològica: 1281-1286.

Salway, Benet, 2014. "Late Antiquity". In Christer Bruun and Jonathan Edmondson, eds. *The Oxford Handbook of Roman Epigraphy*. Oxford: Oxford University Press: 364-393.

Sarantis, Alexander, 2009. "War and Diplomacy in Pannonia and the Northwest Balkans during the Reign of Justinian: The Gepid Threat and Imperial Responses". *DOP* 63: 15-40.

Sarantis, Alexander, 2016. *Justinian's Balkan Wars*. Prenton: Francis Cairns.

Sarantis, Alexander, and Neil Christie, eds., 2013. *War and Warfare in Late Antiquity: Current Perspectives*. Leiden: Brill.

Sarantis, Alexander, and Conor Whately, 2013. "Logistics". In Christie & Sarantis 2013: 211-220.

Sarris, Peter, 2006. *Economy and Society in the Age of Justinian*. Cambridge: Cambridge University Press.

Scharf, Ralf, 1991. "Die Familie des Fl. Eutolmius Tatianus". *ZPE* 85: 223–231.

Scharf, Ralf, 2001. "Praefecti Praetorio Vacantes – Generalquartiermeister des Spätrömischen Heeres". *BF* 17: 223-233.

Schmidt-Hofner, Sebastian, 2008. *Reagieren und Gestalten.* Munich: C.H. Beck.

Seager, Robin, 2005. *Tiberius* 2nd Ed. Malden: Blackwell.

Seston, William, 1946. *Dioclétien et la Tétrarchie,* Vol. 1*: Guerres et Réformes (284-300)*. Paris: Bibliothèque des Écoles Françaises d'Athènes et de Rome.

Sijpesteijn, P.J., 1992. "The Meanings of ἤτοι in the Papyri". *ZPE* 90: 241-250.

Sinnigen, William G.H., 1961. "The Roman Secret Service". *Classical Journal* 57, No. 2: 65-72.

Sippel, Donald V., 1987. "Some Observations on the Means and Cost of the Transport of Bulk Commodities in the Late Republic and Early Empire," *Ancient World* 16: 35–45.

Sirks, Boudewijn, 1991. *Food for Rome*. Amsterdam: J.C. Gieben.

Skeat, T.C., 1964. *Papyri from Panopolis in the Chester Beatty Library*. Dublin: Hodges Figgis.

Slootjes, Daniëlle, 2006. *The Governor and His Subjects in the Later Roman Empire*. Leiden: Brill.

Sodini, J.-P., 2007. “The Transformation of Cities in Late Antiquity within the Provinces of Macedonia and Epirus”. In Poulter 2007: 311-336.

Southern, Pat, 2008. *Empress Zenobia: Palmyra’s Rebel Queen*. London: Continuum.

Stathakopoulos, Dionysios Ch., 2004. *Famine and Pestilence in the Late Roman and Early Byzantine Empire*. Aldershot: Ashgate.

Stein, Ernest, 1949. *Histoire du Bas-Empire*, Vol. 2: *De la disparition de l’Empire d’Occident à la mort de Justinien (476-565)*. Bruges: Desclée de Brouwer.

Swan, Vivien G., 2007. “Dichin (Bulgaria): Interpreting the Ceramic Evidence in its Wider Context”. In Poulter 2007: 251-280.

Swift, L.J., 1966. “The Anonymous Encomium of Philip the Arab”. *GRBS* 7: 267-289.

Teall, John L., 1967. “The Age of Constantine: Change and Continuity in Administration and Economy.” *DOP* 21: 11-36.

Thomas, J. David, 1959. “The Office of Exactor in Egypt”. *Chronique d’Egypte* 34, No. 67: 124-140.

Thomas, J. David, 1975. “The Introduction of the Dekaprotoi and Comarchs into Egypt in the Third Century AD”. *ZPE* 19: 111-119.

Thomas, J. David, 1983. “Compulsory Public Service in Roman Egypt”. In Günter Grimm, Heinz Heinen, and Erich Winter, eds. *Das römisch-byzantinische Ägypten*. Mainz: Philipp von Zabern: 35-39.

Thomas, J. David, 1985. “The Earliest Occurance of the *Exactor Civitatis* in Egypt”. *YClS* 28: 115-125.

Thomas, J. David, 1989. “Exactores in the Papyri and in the Legal Codes”. In Criscuolo & Geraci 1989: 683-691.

Thomas, J. David, 1995. “Strategos and Exactor in the Fourth Century: One Office or Two?” *Chronique d’Egypte* 70, No. 139-140: 230-239.

Thorburn, J.E., 2003. “Lixae and Calones: Following the Roman Army”. *CB* 79: 47-61.

Thorne, James A., 2001. “Warfare and Agriculture: The Economic Impact of Devastation in Classical Greece”. *GRBS* 42: 225-253.

Tougher, Shaun, 2007. *Julian the Apostate*. Edinburgh: Edinburgh University Press.

Torbatov, S., 1997. “*Quaestura Exercitus*: Moesia Secunda and Scythia under Justinian”. *Archaeologia Bulgarica* 3: 78-87.

Townsend, Prescott W., 1934. “The Administration of Gordian III”. In *YClS* 4:59-132.

Treadgold, Warren, 1995. *Byzantium and Its Army, 284-1081*. Stanford: Stanford University.

Treadgold, Warren, 2014. "Paying the Army in the Theodosian Period". In Ine Jacobs, ed. *Production and Prosperity in the Theodosian Period*. Leuven: Peeters: 303-318.

Turtledove, Harry Norman, 1977. *The Immediate Successors of Justinian*. Los Angeles: University of California PhD Dissertation.

Urano Satoshi, 2011. "'Kolletiones' and 'frumentarii': New Readings of 'TAM' V 3, 1417-1418 Two Petitionary Inscriptions from Ağabey Köy and Mendechora". *ZPE* 176: 179-188.

Van Berchem, Denis, 1937. "L'annone Militaire dans l'Empire Romain au III^e Siècle". In *Mémoires de la Société Nationale des Antiquaires de France*, 8^th Series, Vol. 10. Paris: C. Klincksieck : 117-202.

Van Berchem, Denis, 1977. "L'annone Militaire est-elle un Mythe?". In *Armées et Fiscalité dans le Monde Antique*. Paris: Centre National de la Recherche Scientifique: 331-339.

Vannesse, Michaël, 2012. "Ammianus Marcellinus on Julian's Persian Expedition (363 A.D.): A Note on the Supply Chain". In C. Deroux, ed. *Studies in Latin Literature and Roman History*. Brussels: Éditions Latomus: 639-645.

van Ginkel, Jan Jacob, 1995. *John of Ephesus: A Monophysite Historian in Sixth-Century Byzantium*. Rijksuniversiteit Groningen PhD Thesis.

Velkov, Velizar, 1977. *Cities in Thrace and Dacia in Late Antiquity*. Amsterdam: Adolf M. Hakkert.

Vervaet, Frederik J., 2007. “The Reappearance of the Supra-Provincial Commands in the Late Second and Early Third Centuries C.E.: Constitutional and Historical Considerations”. In Olivier Hekster, Gerda de Kleijn, and Daniëlle Slootjes, eds. *Crises and the Roman Empire*. Leiden: Brill: 125-139.

Vogt, Joseph, 1967. *The Decline of Rome: The Metamorphosis of Ancient Civilisation*. Translated by Janet Sondheimer. London: Weidenfeld and Nicolson.

von Premerstein, Anton, 1903. “Die Büchführung einer ägyptischen Legion sabtellung”. *Klio* 3: 1-46.

Wallace, Sherman LeRoy, 1938. *Taxation in Egypt from Augustus to Diocletian*. Princeton: Princeton University Press.

Ward-Perkins, Bryan, 2008. “Jones and the Late Roman Economy”. In Gwynn 2008: 193-211.

Weaver, P.R.C., 1965. “The Father of Claudius Etruscus: Statius, Silvae 3.3”. *CQ* 15, No. 1: 145-154.

Wells, Benjamin W., 1923. “Trade and Travel in the Roman Empire”. *Classical Journal* 19, No. 2: 67-78.

Whately, Conor, 2013. “El-Lejjūn: Logistics and Localisation on Rome’s Eastern Frontier in the 6th c. A.D.”. In Sarantis & Christie 2013: 893-924.

Whitby, Michael, 1988. *The Emperor Maurice and His Historian*. Oxford: Clarendon Press.

Whiby, Michael, 1995. "Recruitment in Roman Armies from Justinian to Heraclius (ca. 565-615)". In Cameron 1995: 61-124.

Whitby, Michael, 2005. "War and State in Late Antiquity: Some Economic and Political Connections". In Burkhard Meißner, Oliver Schmitt, and Michael Sommer, eds. *Krieg - Gesellschaft - Institutionen: Beiträge zu einer vergleichenden Kriegsgeschichte*. Berlin: De Gruyter: 355-386.

Whitby, Michael, 2007. "War". In Sabin, van Wees & Whitby 2007: 310-341.

Whittow, Mark, 1990. "Ruling the Late Roman and Early Byzantine City: A Continuous History". *Past & Present* 129, No. 1: 3-29.

Whittow, Mark, 1996. *The Making of Orthodox Byzantium, 600-1025*. London: MacMillan.

Whittow, Mark, 2013. "How Much Trade was Local, Regional and Inter-Regional? A Comparative Perspective on the Late Antique Economy". *Late Antique Archaeology* 10: 133-165.

Wickham, Chris, 1988. "Marx, Sherlock Holmes and Late Roman Commerce". *JRS* 78: 183-193.

Wiewiorowski, Jacek, 2006. "Quaestor Iustinianus Exercitus – A Late Roman Military Commander?" *Eos* 93: 319-342.

Wiewiorowski, Jacek, 2013. "Agentes Vices Praefectorum Praetorio, Comites Provinciarum and Vicars as the Tool of Constantine the Great". In Dragiša

Bojović, ed. *Saint Emperor Constantine and Christianity,* Vol. 1. Niš: Centar za Crkvene Studije: 283-293.

Wijnendaele, Jeroen W.P., 2015. *The Last of the Romans: Bonifatius − Warlord and Comes Africae*. London: Bloomsbury.

Wotschitzky, A., 1959. "Veldidena. Zweiter vorläufiger Bericht über die Ausgrabungen". *Jahreshefte des Österreichischen Archäologischen Institutes in Wien* 44: 5-70.

Zahariade, Mihail, 2006. *Scythia Minor: A History of a Later Roman Province (284-681)*. Amsterdam: Adolf M. Hakkert.

Zemmer-Plank, Liselotte, 1989. "Die neuen Ausgrabungen in Innsbruck-Wilten, dem römischen Veldidena". In Elisabeth Zacherl and Giuseppe Richebuono, eds. *Die Römer in den Alpen/I Romani nelle Alpi*. Bolzano: Verlagsanstalt Athesia: 131-137.

Zuckermann, Constantine, 1988. "Legio V Macedonica in Egypt. CLP 199 Revisited". *Tyche* 3: 279-288.

Zuiderhoek, Arjan, 2009. "Government Centralization in Late Second and Third Century A.D. Asia Minor: A Working Hypothesis". *Classical World* 103, No. 1: 39-51.