



Claudius and the Roman Army Reforms

Author(s): Chris Thomas

Source: *Historia: Zeitschrift für Alte Geschichte*, 2004, Bd. 53, H. 4 (2004), pp. 424-452

Published by: Franz Steiner Verlag

Stable URL: <https://www.jstor.org/stable/4436742>

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

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



JSTOR

Franz Steiner Verlag is collaborating with JSTOR to digitize, preserve and extend access to *Historia: Zeitschrift für Alte Geschichte*

CLAUDIUS AND THE ROMAN ARMY REFORMS

Introduction

The thesis of this article is that there was a deliberate and wide-ranging series of reforms of the Roman military during the reign of the Emperor Claudius. These reforms were probably initiated soon after his accession in 41.¹ They can be shown to have affected most parts of the Roman army, in areas of its organisation, strategy and technology. The changes were such as to have a profound effect on the way that the army was to carry out its functions over the next century, both in the way it acted tactically as well as in the way that it fulfilled its strategic role.

From the end of the second century BC the army of the Republic underwent various reforms, with many far-reaching changes being introduced by C. Marius as part of his military programme. These were built upon by C. Julius Caesar, whose Gallic wars and conquests needed a large semi-permanent army close to Italy.² The army list of legions of the early empire consists of many units, both legionary and auxiliary, that can be traced to Caesar's army of the Gallic wars and civil wars. Many of the remainder can be traced to the later civil wars of Augustus in the late 40s BC.³ After the defeat of M. Antonius and the end of the civil wars in 31 BC the creation of the permanent professional Roman army was one of the most important parts of Augustus' reorganisation of the Roman state in the 20s and 10s BC. The basic structure of the military machine of the empire owes much of its existence to this emperor. The permanent establishment of the army's units, their location in the less settled provinces and the extension of service over decades were only some of the features that soon transformed the nature of the army and of the soldiers.

Tiberius had done little or nothing during his reign to introduce change. In this he respected both Augustus' example as well as following his own inclinations. As co-ruler, with *potestas tribunicia*, from 4, he had probably held effective military control in the last years of Augustus' life. After his accession he saw no reason to change what he had, himself, put in place and in his later years he did not even bother to change *tribuni militum praefectique*.⁴ Caius'

1 All dates are AD (CE) unless stated otherwise

2 Harmand, Jacques, 'Les origines de l'armée impériale. Un témoignage sur la réalité du pseudo-principat et sur l'évolution militaire de l'Occident', *ANRW* II, 1 (1974), 268–79.

3 Keppie, Lawrence, *CAH X* ², 376 and *The Making of the Roman Army* (London 1984), 142–5.

4 Suetonius, *Tib.* 41.

contribution to military reform is shrouded in silence, as are many aspects of his reign. With the possible exception of the formation of the two *legiones Primi-geniae*, there is no record of any change attributable to his four-year rule and it is unlikely that he undertook many initiatives in this area. The evidence points to Claudius as the first reformer of Augustus' work.⁵

Many of the features of the army, such as the budgetary provisions for a pension and discharge scheme, the establishment of some permanent units and many details of the fixing of terms of service and pay, are generally recognised as having been set in place before the accession of Tiberius in 14. However, a number of reforms in these and other areas were implemented at some later stage in the first century and these reforms also had an effect on the army for the remainder of the Principate, well into the crisis years of the late second century.

There is a body of recent and extensive literature on the Roman military, which has dealt with such aspects as the legionary forces, the development of the *auxilia*, the equipping, housing and feeding of the troops, as well as more contentious matters, such as pay scales and the actual sizes of units. These discussions have addressed some of the changes in passing or as topics on their own only as they related to the matters at issue. There has, however, been little attempt to examine the reforms as a whole, in order to try to understand whether they were implemented together or piece-meal, whether in fact they could be part of the 'military reform programme' of a particular emperor.

Background

It might be useful to summarise briefly Claudius' personal history in order to try and give a background and an understanding of some of the possible motives and reasons for his actions. After the adoption into the *gens Iulia* of his uncle, Tiberius, and his elder brother, Germanicus, Claudius was left as the senior male member of the patrician *Claudii Nerones*, one of the oldest families in Rome. From his father, Drusus Nero, he had inherited the *cognomen*, Germanicus, a title, which he used proudly after the death of his brother, even as Emperor.⁶ He was, then, the son, nephew and brother of three of the most important military figures in Rome since Caesar. Not only was he a member of the Claudian family, but he was related to Mark Antony through his mother, Antonia, the Triumvir's daughter. Antony's wife, Claudius' grandmother, Octavia, was also Augustus' sister and Caesar's grand-niece. On his accession he

5 Le Bohec, Yann, *L'armée romaine* (Paris 1989), 197.

6 He called himself Tiberius Caesar Germanicus in his speech at Lyon in 48, even after he had been awarded the *cognomen* Britannicus. *ILS* 212. Most of his inscriptions carry the name Germanicus.

deliberately linked himself with this military past by his adoption of the name Caesar, without however, taking the *nomen* Julius. He was the first *princeps* to do this, as all of his predecessors had been adopted into the *gens Iulia* before their accession. He was, then, linked to most of the great military figures of his age, a fact of which, as an historian, he was well aware.

This military heritage must have been all the more galling to him, because of his physical disabilities, which in the eyes of Rome and of his family, if not his own, ruled him out of participation in any public office.⁷ This would apply especially to a normal military career, which was regarded as mandatory for a man of his class and family. Thus insulted by his family and condemned to exclusion from a senatorial career,⁸ he spent most of his adult life until his fiftieth year in idleness or writing history. This contrast with what might have been expected from a member of the imperial family was accentuated by his senior membership of the junior equestrian order, rather than of the senatorial. This might explain his later interest in some matters of concern to the members of the equestrian order, especially in the reorganisation of the Roman army, including the *auxilia* where it was equestrians who filled the senior military commands.

When he became *princeps* in 41, Claudius immediately embarked on a series of reforms and changes. Apart from his adoption of his name, he emulated Julius Caesar in other ways, so emphasising the connection and reference. He began construction of the Port of Ostia (rejected by Caesar as too expensive), started draining the Fucine Lake⁹ and in 53 he commenced the invasion of Britain. It was this military feat of which he was most proud. He triumphed, built at least one arch, issued commemorative coins, received the *cognomen* Britannicus for himself and gave it to his son. In addition he established his cult at Camulodunum, the first British colony.

This military success is reflected two centuries later in the papyri found at Dura-Europus on the Euphrates. Well into the third century, Claudius' birthday was still commemorated in the *Feriale Duranum* of the *cohors XX Palmyrenorum*, where the celebration on 1 August of the *natalis Divi Claudii* required the sacrifice of an ox. Claudius is included here with most of the important military figures of the empire, including his brother Germanicus.¹⁰ Fink reiterates the

7 Although granted *ornamenta consularia* by Tiberius, presumably early in the latter's principate, he was refused the actual office. Suetonius, *Divus Claud.* 5, 1. He is recorded as the head of an equestrian delegation on two occasions, at least, on Augustus' death in 14, and on Seianus' fall in 31, so he was presumably not a senator by the time of this last occasion. Suetonius, *Divus Claud.* 6, 1. He seems not to have become a senator until his election as consul with Caius in 37. Suetonius, *Divus Claud.* 7, 1.

8 Suetonius, *Divus Claud.* 4, 7 and 5, 1.

9 Ostia, Suetonius, *Divus Claud.* 20, 1; Fucine Lake, Suetonius, *Divus Julius* 44, 3.

10 *P.Dura* 54 (inv. D. P. 2) = *RMR* 117. Fink, R. O., *Roman Military Records on Papyri* (Ann Arbor 1971), 422–29.

point that because this list has no non-Roman gods, it must be the official military calendar, which had existed for the whole imperial period up till that time. Clearly the army regarded Claudius as a 'military' emperor, officially at least.

His planning and participation in the invasion of Britain occupied much of the first three or four years of Claudius' reign, from his accession until his return to Rome in 44. So, in the early years of his principate Claudius was much involved in military matters and it is during this period that the military reforms were planned and initiated. There was also the undoubted zeal of the frustrated politician and historian with a military bent, who in late middle age was in the position to be the 'new broom' after decades of stagnation and eccentric confusion. It is known from his other actions that he was a ruler who was not afraid to address outstanding problems and come up with new and innovative approaches. A complete reform of the army would fit in well with his attitudes and practices.

Organisational changes

Roman historians were addressing an audience of peers, fellow members of the two ruling classes of Rome, the senatorial and equestrian orders. By the second half of the first century AD, each of these two orders had developed a separate career path, the *cursus honorum*, through which individuals moved through the hierarchy. Both of these *cursus* included what we would call civil and military posts, although the Romans did not differentiate between them to the extent that we do. As with other ruling élites, such as the British ruling class of the nineteenth century, a member of the Roman élite was assumed to be fitted for military command by birth and upbringing. Members of both the Roman orders were brought up in a military environment and were, therefore, completely familiar with the facts of army life and its organisation. For this reason it was unnecessary for a Roman writer to address the *minutiae* and detail of military life directly. We often get references to everyday military matters only when they are necessary to illustrate a situation, or as an aside or anecdote, or when something unusual or extraordinary happened. It is for this reason, among others, that there is little specific reference in Roman sources to the way that the army functioned. Also in the case of the reign of Claudius, Books VII to X of Tacitus' *Annales*, which covered the decade from 37 to 47, have unfortunately not survived, so we are deprived of an important source of specific detail for the earliest years of Claudius' principate. Similarly, epigraphy in the form of memorials, gravestones and votive altars, the other major source of evidence for the organisation of the army, is still relatively sparse for the early Principate.

The imperial Roman army was the exclusive province of the emperor. This fact is clear from the beginning when it is recorded that Augustus left his will

with a summary of the numbers of soldiers, where they were stationed and the amount of money he had left, with the names of the administrative staff, the freedmen and slaves, who had the details.¹¹ Obviously such instructions would have been unnecessary if the Senate had previously been involved in administering the army. Such incidents as Tiberius' rebuke to Junius Gallio, *quid illi cum militibus, quos neque dicta nisi imperatoris neque praemia nisi ab imperatore accipere par esset*¹² is an indication of the jealous fashion in which the emperor guarded his powers. Later, Domitian executed a governor of Britain, Sallustius Lucullus, for allowing a new type of lance to be named after him.¹³ Claudius, himself, had the Senate pass a decree forbidding soldiers from entering senators' houses to pay their respects as clients.¹⁴ Clearly, many emperors, especially those who felt less secure, such as Claudius in the first few years of his reign, insisted that they be the sole source of power as far as the military were concerned. This applied particularly to the structure of the army, its hierarchy and officers, because imperial power was exercised through control of patronage, which was a very important feature of life in the empire. Because of this need to control the army, only an emperor could safely undertake an extensive reform of the army. Such a matter could not be left to any subordinate.

The army that Claudius inherited was essentially the same as that which Augustus had established fifty years before. In his settlement after the Civil Wars, Augustus had tended to keep to Republican forms as much as possible, in order that the monarchical nature of his rule should not be more obvious than was necessary. This was especially the case with the military as the army was the base of his power. Therefore, the army's structure and organisation still reflected many of the usages of the Republican army, rather than the new needs of a full-time, professional force. For instance, the method of appointing officers to command auxiliary units was still that of the Republican armies, with centurions, equestrians and senatorials all holding various commands on an *ad hoc* basis.

Army officers

Of one of Claudius' acts, Suetonius wrote *equestris militias ita ordinavit, ut post cohortem alam, post alam tribunatum legionis daret*.¹⁵ What is interesting about this order of promotion from *praefectus cohortis* to *praefectus alae* and then to *tribunus militum* is that it is not the order that was usual when Suetonius

11 Suetonius, *Divus Aug.* 101, 4 and Tacitus, *Ann.* 1, 11.

12 Tacitus, *Ann.* 6, 3.

13 Suetonius, *Domitian.* 10, 3.

14 Suetonius, *Divus Claud.* 25, 1.

15 Suetonius, *Divus Claud.* 25, 1.

was writing his history.¹⁶ Suetonius was fully aware of the structure as it existed in the second century, as were his readers. He was only concerned to inform them that Claudius had restructured the *cursus* for equestrian officers, a reform which had been changed by his time and which he felt no need to mention to his readers, who would have known of it.¹⁷

Prior to Claudius' accession, auxiliary commands were a series of appointments made without any structure rather than postings in a career pattern. The commands were held by senators¹⁸ and *primipilares*,¹⁹ as well as by equestrians. In addition to tribunates, Augustus gave *praefecturae alarum* to young members of the senatorial order, which were shared between two senators.²⁰ To some extent the less structured system of command of Augustus' reign reflects the still partially developed organisation of the *auxilia* itself. The non-citizen force was still in the early stages of its development and it was not until the reign of Tiberius that the system even began to 'take shape'.²¹

After removing them from auxiliary commands, Claudius reserved two military posts exclusively for senators, the senior legionary tribunate and the command of the legion. For the *primipilares*, who had risen through the various grades of the centurionate to their rank, the next military postings were to commands of the city cohorts in Rome, as tribunes in the *vigiles*, the urban cohorts and the praetorian cohorts.²²

By reserving these commands for equestrians as part of a regular *cursus honorum*, Claudius created a recognised path of promotion and so opened up the opportunity for a military career to members of the equestrian order who had such ambitions. In putting the posts in the order that he did, with the tribunate as the senior post, Claudius was probably reflecting the superior status of the command of Roman citizen troops as opposed to that of non-Roman. He perhaps also considered that the tribunate would be good preparation for any civil career that could follow the posting of *tribunus militum*, a post that was mainly concerned

16 At some stage during Nero's reign at the latest, the order of promotion had been changed and the steps were from *praefectus cohortis* to *tribunus militum* and then to *praefectus alae*. ILS 1434; 2730; 2718 and Devijver, H., 'Suétone, Claude, 25, et les milices équestres', *Ancient Society* 1 (1970), 72–5.

17 Suetonius had not only requested an equestrian tribunate for himself from Pliny, which he then requested be transferred to another candidate (Pliny, *Epp.* 3, 8), but, later, at the end of his career, he was Hadrian's *ab epistulis*, the official who handled imperial appointments. SHA *vita Hadriani* 11, 3.

18 ILS 911; 912.

19 ILS 2684; 2686; 2690; 2692; 2693; 2694; 2705.

20 Suetonius, *Divus Aug.* 38, 2.

21 Saddington, D. B., *The Development of the Roman Auxiliary Forces from Caesar to Vespasian* (49 BC – 79) (Harare 1982), 89.

22 Devijver (1970, as in n. 16), 75.

with administration.²³ There were two factors that Claudius' reforms did not take into account and which were probably the reasons for its failure. First, the level of expertise needed to command a cavalry *ala* was much greater than that needed to undertake the duties of one of five legionary tribunes. Secondly, there was probably a lack of willingness and enthusiasm on the part of officers who had held important independent commands for several years to carry on to serve in a subordinate and less demanding post in a legion.²⁴ Eventually it would have been seen as a waste of skill and experience in having such men going backwards in the career. The theoretical reform gave way to practical military needs.

One of the results of the reform of the equestrian military career structure was that the role of the *praefectus fabrum* changed.²⁵ This post had been filled by a relatively experienced officer who acted as chief of staff to the commander of a consular army. Up to the middle of Claudius' reign the post was only being filled by such senior officers as Glitius Barbarus, a *primipilus*, and men like the physician C. Stertinus Xenophon and Balbillus, Claudius' companions²⁶ who were being honoured for their role in accompanying the emperor on the invasion of Britain. With the formalisation of the equestrian career structure the need for this post for such experienced men vanished and until the reign of Hadrian the position became the *beneficium* of a senator who filled the post with a junior equestrian client who was at the start of his career. It then ceased to be a military post at all.²⁷

The Legions

After Augustus' initial military settlement, no new legions were raised until the formation of *legiones XV et XXII Primigeniae*. There is disagreement about the precise date of their formation, but there is no doubt that it was between 37 and 43, under either Caius or Claudius.²⁸ One of the problems with understanding Caius' reign is not only the paucity of the written sources, but also the universal hostility of the evidence from the moment of his death. The reports of 'campaigns' in the north in 39 and 40 are described as cowardly failures or ludicrous fiascos, although Tacitus does say that it was well known that he debated an

23 Devijver (1970), 77.

24 Devijver (1970), 75–8.

25 Dobson, Brian, 'The Praefectus fabrum in the Early Principate', in Jarrett, Michael G. and Dobson, Brian (edd.), *Britain and Rome: Essays presented to Eric Birley* (Kendal 1965), 72f.

26 CIL 5.6969; IGRR 4.1086; AE 1924, 78.

27 Pflaum, H.-G., 'Principes de l'administration romaine impériale', *Bulletin de la Faculté des lettres de Strasbourg* (1958), 182.

28 Mann, J. C., 'The Raising of New Legions during the Principate', *Hermes* 91 (1963), 483.

invasion.²⁹ We do not know whether he intended to only campaign in Germany and Britain or to invade and permanently occupy them. Suetonius says that he went to Germany to replace members of his bodyguard with Batavians³⁰ and that while he was on the Rhine he crushed the conspiracy of Lepidus and Gaetulicus. If Caius only planned a limited campaign in Germany, then he probably did not need to form new legions. Even if he had intended to occupy any part of Free Germany the legions already on the Rhine would have been moved forward and used as the occupation army for any new province as they had been before Varus' defeat. Caius embarked on no extensive campaign in either Germany or Britain and he may have intended none in the first place.

The formation of new legions indicates that it was intended to occupy permanently new province where there were no existing troops available. Such a case fits that of Britain, far to the west of the Rhine garrison. Claudius probably decided to invade very early in his reign, perhaps within months of his accession. Additional legions were necessary for this invasion despite earlier optimistic assessments.³¹ The two new legions were formed, not to be part of the invasion force themselves, but to take the place of the veteran legions that were to participate. *Legio XV Primigenia* was based at Weisenau near Mogontiacum before going to replace *legio XX* on the lower Rhine and *legio XXII Primigenia* remained at Mogontiacum where it replaced another legion in the invasion force, *legio XIV Gemina*.³²

There is also the question of the reasons for the *cognomen* of these two legions, *primigenia*. *Primigenia* is one of the names of Fortuna, the favourite goddess of Germanicus, as well as of Caius, and it has been argued that Caius gave the name to the legions through filial devotion.³³ But Claudius was as devoted to the memory of his brother, if not more so, than Caius was, so that reasoning applies equally to both men. Claudius was known to have been an inveterate gambler³⁴ and considering the recent improvement in his fortune, what better deity could he honour in forming his new legions. So while there are arguments in favour of either emperor forming these legions, Claudius seems more likely than Caius does.³⁵

29 Suetonius, *C. Caligula* 43–46; Tacitus, *Hist.* 4, 15; Dio 59, 21, 1–3 and Tacitus, *Agr.* 13.

30 Suetonius, *C. Caligula* 43, 1.

31 Although at least four legions and a similar number of auxiliaries were used in the invasion of Britain, Strabo had earlier claimed that the island could be occupied by one legion and some cavalry. Strabo, *Geog.* 4, 5, 3. Roman ignorance of the island was such that it was not until the end of the century that Agricola officially circumnavigated Britain and confirmed its extent. Tacitus, *Agr.* 10.

32 Mann (1963, as in n. 28), 484.

33 Ritterling, *RE*, XII 1 (1924), 1246–7.

34 Suetonius, *Divus Claud.* 5.

35 Parker, H. M. D., *The Roman Legions* (Cambridge 1958), 94–8.

There are other developments that took place in the first century AD relating to the titles of legions and auxiliary forces. Those of the latter will be discussed below. Some republican legions had titles, but they were not universal as each legion was raised and disbanded as it was needed, and so they did not have a continuous history. The establishment of the permanent imperial legions encouraged the growth of traditions and *esprit de corps*. It is difficult to ascertain when permanent *cognomina* became the rule for all legions and while most Augustan legions had titles, not all did. It is perhaps an argument *ex silentio*, but the three legions of Varus, *legiones XVII, XVIII and XIX*, which were destroyed in 9, never have any *cognomina* attributed to them, and nor do at least three other Augustan legions.³⁶ Possibly 'official titles' were not the rule for legions in Augustus' reign, but by 42 they certainly were. The two *legiones Primigeniae* were named at their inception, as were all of the legions that were formed after this date. The two Dalmatian legions, *VII* and *XI* were each honoured as *Claudia pia fidelis* for their loyalty during the Scribonianus Revolt of 42. Lesquier argued that the '*goûts érudits de Claude*' were responsible for the *cognomen* bestowed on *legio XXII Deiotariana*.³⁷

There was another reform that probably applied only to the legions and not to the non-citizen soldiers. In his chapters on the year 44, Dio writes that Claudius gave the 'rights of married men to those serving as soldiers'.³⁸ Since Augustus' establishment of the army, soldiers had been forbidden to marry and it seems that, theoretically at least, they had suffered the penalties imposed on the unmarried and childless. It was these penalties that were presumably removed rather than the soldiers' being given the rights of married men and the rights of those with three children. The removal of this anomaly made perfect sense and it is surprising that it had not been implemented earlier.

The *auxilia*

One of the greatest contrasts between the army of Augustus and the imperial army of the second century AD is increased importance of the auxiliary *alae* and *cohortes*. The development of their command structure has been outlined, but there are changes in other aspects of the organisation of auxiliary units that can be attributed to Claudius.

As the auxiliary units became permanent, like the legions, they too adopted or were given names and titles. These titles eventually consisted of various

36 The *legiones VII* and *XI*, later *Claudiae piae fideles*, and the *XXII Deiotariana*. Parker (1958, as in n. 35), 261.

37 Lesquier, J., *L'armée romaine d'Égypte* (Cairo 1918), 49.

38 Dio 60, 24, 3.

combinations of numbers, tribal names, names of individuals (probably famous ex-commanders³⁹), provincial names, honorifics based on success on campaign, imperial *nomina*, descriptions of size and type of armament and occasionally, records of block grants of citizenship. The reasons for the attribution of some of these titles is not always clear, but perhaps surprisingly the titles of auxiliary units were often longer and more descriptive than those of legions. The confusion over how certain series of cohorts with apparently identical or similar names and numbers related to each other still escapes us. The epigraphic and other evidence, sparse though it is, indicates that few of these developments of titlature had taken place before the Claudian period.⁴⁰

The practice of naming *alae* and *cohortes* after their commander or immediate ex-commander is attested well into the reign of Tiberius.⁴¹ The arguments in favour of an auxiliary unit that has a personal name in the genitive as its title, being named after its current commander, or that has the name in the genitive of an adjectival form, being named after its still unreplaced previous commander, seem compelling.⁴² The units for which we have this evidence were mostly stationed in Egypt, where the survival of papyrus documents provides more evidence than from other parts of the empire. On the Rhine and Danube, which is where much of the army was based during the early principate, documents of wood or papyrus survive less easily. At this time, too, the epigraphic evidence is sparser than it is for later periods. But there is no reason to think that the military was organised differently in this respect outside Egypt. As an example of this titlature, there is a loan agreement dated 25 August 27 from a trooper in *ala Paullini*, made out to a soldier from a cohort, also probably named for its commander, *cohors Ae ...[.] Habeti*, both units being stationed near Alexandria.⁴³ This *terminus post quem* must surely indicate that at this date, late in Tiberius' reign,⁴⁴ it was uncommon for auxiliary units to be described in any other fashion except by the name of their commander.

It is claimed that this practice was 'convenient locally and in the short run', but if that had been the case it would have created confusion in the office of the

39 Birley, E., 'Alae Named after their Commanders', *Ancient Society* 9 (1978), 264–71.

40 Saddington (1982, as in n. 21), 176–7.

41 For *alae*; *ILS* 2490; 2499; 2500; 2501 and for *cohortes*; *cohors Facundi, Flori and Nigri*. These latter were probably all the same unit named after their successive commanders. Birley (1978, as in n. 39), 257–73.

42 Birley (1978, as in n. 39), 257–73; Gilliam, J. F., 'Notes on a New Latin Text: P.Vindob. L 135', *ZPE* 41 (1981), 277–80; Speidel, M. P., 'Auxiliary Units Named after their Commanders: Four New Cases from Egypt', *Aegyptus* 62 (1982), 165–72.

43 *P.Vindob.* L135.

44 It was in this year that Tiberius withdrew to Capreae and it seems most unlikely that any marked change in military policy would have occupied him in this period of stagnation. Tacitus, *Ann.* 4, 67.

ab epistulis in Rome, if nowhere else.⁴⁵ That might seem a reasonable assumption to make, although how much confusion could be created and who would be concerned by that confusion could be questioned. The question arises as to who might be so concerned by such confusion that he would reform the system. It seems unlikely that such a change, affecting the status and honour of equestrian officers who were commanding troops all over the empire, would be taken merely in order to make a freedman or slave official's job easier. A reform of this magnitude fits far more comfortably under Claudius, especially if it were coupled with other reforms of the auxiliary such as restructuring the command system and regulating the granting of citizenship.⁴⁶

It is claimed that some auxiliary units had been allocated permanent names on their initial formation by Augustus.⁴⁷ That being the case, if the unit titles are coupled with the honorific *Augusta*, these units can be assumed to be early formations.⁴⁸ It seems that this early allocation of auxiliary titles is more common with infantry *cohortes* than with cavalry *alae*. The reason for this is probably because of the different history of recruitment for these two branches of the *auxilia*. Each infantry unit was originally recruited from a single ethnic group and as such was generally known by the name of that tribe or people, whether or not it was actually an official title.⁴⁹ The history of the cavalry units is different, because they were initially recruited in smaller units, *turmae*, and only later organised into *alae*. It seems that they were brought together under officers, Roman and non-Roman, and it was from them that the units took their titles.⁵⁰ It was only at a later date that the titles were standardised and brought into line with those of the infantry.

There were six auxiliary units honoured with the title *Claudia*, four units that were new formations and two existing units that were given an extra honour. The title was almost certainly awarded to some of the units; at least those stationed in Dalmatia, at the same time as to *legiones VII* and *XI*, for their loyalty in the Scribonianus Revolt.

It is during the reign of Claudius that we find the first addition of a tribal name to the title of a unit with a personal name (such as *ala Gallorum Petriana*)

45 Speidel (1982, as in n. 42), 167.

46 See below pp. 436–8.

47 Speidel (1982, as in n. 42), 166–7.

48 However, when the emperor who had bestowed the title suffered *damnatio memoriae*, such as happened to Domitian, then an alternative honorific had to be found. Holder, Paul A., 'Studies in the *Auxilia* of the Roman Army from Augustus to Trajan', *BAR International Series* 70 (Oxford 1980), 14–15.

49 The following cohorts date from the reign of Augustus. *Cohors I Corsorum* (CIL 14. 2954), *cohors Ubiorum peditum et equitum* (ILS 2690) and *cohors Trumplinorum* (ILS 847).

50 Speidel (1982, as in n. 42), 168.

and, more importantly from a modern research point of view, the addition of the name of the province where the unit was stationed (such as *ala Augusta Germanica*). This naming of the unit after the province where it was stationed had been established practice for republican legions as well as early imperial legions, but it was a new departure for auxiliary units.⁵¹ This practice not only implies that there was a permanent provincial garrison of auxiliary troops but it also demonstrates their increasing importance in the military structure.

The fleets

The Roman fleets during the reigns of Augustus, Tiberius and Caius consisted of the main Mediterranean units based at Misenum, Ravenna, Alexandria and initially at least at Forum Iulii. Other naval units were progressively formed as they were needed. Drusus, Tiberius and Germanicus each used fleets for their German campaigns. There is no trace of a naval presence at the main bases in the lower Rhine at Bonn in the Augustan and Tiberian period and it is likely that there was at this time no permanent *classis Germanica*. The earliest sign of any permanent naval presence in the German provinces is at Köln-Alteburg and while that presence has been dated to Claudius' reign,⁵² it is not conclusive proof of its establishment, although it is at least plausible that the formation of this fleet could be attributed to Claudius. However, it is almost certain that he established the *classis Britannica* as a part of his preparations for the invasion of Britain and the need to transport troops and supplies there. At the very least a revamping of the naval arrangements for the whole North Sea, Channel and lower Rhine would be necessary as part of the preparations for invasion. The transport of legions and equipment from the upper Rhine and Danube would require a large amount of shipping on both rivers and by sea as the easiest and cheapest transport option.

Claudius' change of the command structure is the most obvious of his reforms of the fleet. Under Augustus and Tiberius, the command of the fleets, especially of the two Italian fleets, had been held as a purely military post, normally after the *praefectura castrorum*, or as a domestic post by an imperial freedman.⁵³ During the long years of peace in the Mediterranean in the early principate, the navy in Italy, especially the *classis Misenensis*, had to some extent lost its military function. With its corps of sailors and skilled tradesman, it had increasingly become an imperial ferry and transport service, '*le mode de transport privilégié de la cour*'.⁵⁴ Such incidents as Tiberius' coming up the

51 Saddington (1982, as in n. 21), 171.

52 Reddé, Michel, *Mare Nostrum* (Rome 1986), 291.

53 Sherwin-White, A. N., '*Procurator Augusti*', *PBSR* 15 (1937), 23.

54 Reddé (1986, as in n. 52), 503. The finding of the body of the soldier killed by the eruption of 79 on the beach at Herculaneum opposite Misenum is an intriguing indication

Tiber to Rome in a trireme, Caius' extravagant building of *deceris Liburnicas* and the building of the bridge across the gulf at Baiae are all examples of the functions of the fleet at Misenum.⁵⁵

As part of his reform of the procuratorial system, Claudius put the commanders of the Italian fleets on the same footing as praesidial procurators as *procurator Augusti et praefectus classis*. He also issued diplomas to the sailors of the fleet at Misenum, thus putting them in the same position as the auxiliaries.⁵⁶ The command situation remained unchanged under Nero, but the experiences of the Civil Wars of 69–70 and the increased military use of the fleets made it clear that a military role was still important. From the Flavian period onwards command of the fleets was changed and it became a regular part of the equestrian *cursus honorum*. As with Claudius' reform of the equestrian military *cursus* from *cohors* to *ala* to legion, his reform of the fleet command structure was not a complete success.

Citizenship

Augustus' attitude to the granting of Roman citizenship was one of extreme reluctance. When his wife, Livia, requested a grant of citizenship for a Gallic client, the most he would allow in that instance was *immunitas*, freedom from taxation.⁵⁷ There was the case of a chief of an Alpine tribe, the Trumplini, who was *praefectus cohortis* of a cohort of his own tribesmen who was only granted *immunitas* and not citizenship.⁵⁸ Interestingly, the Cheruscan Arminius, who defeated Varus in 9, is recorded as being a citizen and an equestrian,⁵⁹ grants that might owe something to Tiberius, with whom he probably served in Pannonia.⁶⁰ So, too, had his father-in-law, Segestes, who claimed to Germanicus in 15, *a divo Augusto civitate donatus sum*.⁶¹ But even Tiberius could not easily convince Augustus to grant such favours to a Greek client without the proposed recipient first appearing and justifying his receipt of the honour

of a soldier's activities. He had both sword and carpenter's tools and a large amount of gold and silver in his wallet. Whether he was a legionary, auxiliary or a sailor is unknown.

55 The trireme on the Tiber; Suetonius, *Tib.* 72, 1, the Liburnians; Suetonius, *C. Caligula* 37, 2, the bridge at Baiae; Suetonius, *C. Caligula* 19, 1–3. Although Suetonius says that these latter were merchant ships, it seems probable that they would have been manned by naval personnel.

56 *ILS* 1986. See below 437–8.

57 Suetonius, *Divus Aug.* 40, 3.

58 *ILS* 847.

59 Velleius Paterculus 2, 118, 2.

60 Birley, E., 'Before Diplomas and the Claudian Reform', in Eck, W. and Wolff, H. (edd.), *Heer und Integrationspolitik: Die römischen Militärdiplome als historische Quelle* (Köln and Wien 1986), 250.

61 Tacitus, *Ann.* 1, 58.

before Augustus, himself.⁶² There is no record as to whether the citizenship was granted in that case. The apparent difference in the treatment of various individuals is puzzling, but perhaps the various incidents happened at different times during Augustus' long reign and his attitude had changed over time.

But these cases all involve high status chiefs and personal clients of members of the imperial family. The first definite examples of rank and file auxiliaries receiving citizenship from a reigning emperor fall in the principate of Tiberius.⁶³ An examination of the length of service of some of the recipients of his grants and the fact that they were still serving in their units might indicate that he granted citizenship as a way of avoiding discharging troops. He is said to have avoided paying off legionary troops in order to save money,⁶⁴ as Augustus apparently did too.⁶⁵ However, these grants of citizenship were generally *virittane*, even though sometimes coupled with grants of *conubium* and *immunitas*. They, therefore, represent quite a different policy from the later granting of rights to whole units as a condition of enlistment. The attitudes of his predecessors are in marked contrast to those of Claudius, as typified in his speech to the Senate in 48, when he sympathetically recounted the history of the extension of Roman citizenship over the centuries.⁶⁶

There were two reforms that Claudius implemented in connection with auxiliary conditions of service.⁶⁷ The first was the regularising of the thirty-year length of service, which was probably implemented soon after the invasion of Britain. This can be dated earlier than the second reform, the regularising of the granting of citizenship, because there is the evidence of a peregrine veteran who was discharged after thirty-six years, but still without a grant of citizenship.⁶⁸ The second reform, the most important and far-reaching of Claudius' reforms of the *auxilia*, was the granting of *civitas* and *conubium* to auxiliaries after twenty-five years or more of service.⁶⁹ It was not merely the added status of citizenship that was important to these veterans. It was the right of *conubium*, the legitimisation of their offspring, which gave Roman citizenship to their children and descendants. For ambitious men the increase in status and position, as well as increased legal rights, which came to themselves and their families, were good reasons to join auxiliary units.

62 Suetonius, *Divus Aug.* 40, 3.

63 *CIL* 3.4844, 4846, 4847 and 11554.

64 Suetonius, *Tib.* 48, 2.

65 The policy of Augustus (and Tiberius as effective co-emperor) is witnessed by the actions of the legionaries who mutinied on Augustus' death in 14 claiming to have served thirty or forty *stipendia* without any discharge. Tacitus, *Ann.* 1, 17 and 35.

66 *ILS* 212 and Tacitus, *Ann.* 11, 24.

67 Holder (1980, as in n. 48), 47–8.

68 *ILS* 2529.

69 Birley (1986, as in n. 60), 249–50.

For a retired veteran, perhaps settling somewhere where his past was unknown, proof of his and his family's rights was ensured by the possession of the so-called diploma. Claudius was responsible for the first issue of these diplomas, which recorded those rights that had been granted to soldiers *qui quina et vicena stipendia aut plura meruerant* ... and to whom *civitatem dedit et conubium*.⁷⁰ This formula is from the earliest extant diploma, which together with another fragmentary one, is dated to 54, the final year of Claudius' reign.⁷¹ It seems certain that Claudius was responsible for the introduction of this reform.

Strategic changes

This section deals exclusively with the situation on the northern boundary of the Empire. There is debate about Augustus' imperial ambitions and aims on the northern frontier regions of Germany, Bohemia and beyond. It has been thought that he was concerned to expand and take over Germany and Bohemia merely in order to secure safe and defensible frontiers in the north. More recently it has been considered that the Augustan belief in the Roman destiny *regere imperio populos*⁷² was better reflected in the concept of endless expansion to the limits of the known world. However, the Romans' geographical knowledge of northern Europe at this time was rudimentary and it was often very inaccurate. This ignorance no doubt contributed to the belief that such an expansion was even possible.

After the defeat of Varus in 9, there was an abrupt halt to Roman expansion into Germany. Tiberius accepted Augustus' posthumous injunction to stay within the bounds of the empire⁷³ and apart from Germanicus' campaigns against the north German tribes between 14 and 16, there was little military activity on the northern frontiers. The *status quo* was maintained until Caius' forays across the Rhine in 40/41. There seems to have been little considered re-examination nor change of policy in relation to the northern frontier between 16 and 41. The whole is marked by stagnation and inactivity rather than by the implementation of any specific considered policy.

70 CIL 16. 3.

71 Alföldy, Géza, 'Zur Beurteilung der Militärdiplome der Auxiliarsoldaten', *Historia* 17 (1986), 216.

72 Virgil, *Aeneid*. 6, 851.

73 Tacitus, *Ann.* 1, 12.

Britain and the Rhine

The most obvious departure from Augustan foreign policy was Claudius' invasion of Britain in 43. This was the first major expansion of the Empire for nearly forty years and it represented a deliberate contrast with the policy of the past. Claudius must have started planning the British invasion soon after his accession and that had implications for the military on the whole Rhine-Danube frontier because of the need to find troops. The four legions that were needed for the invasion were partly compensated for by the newly formed *legiones XV* and *XXII Primigeniae*, but as other measures were also needed to find the necessary numbers, *legio IX Hispana* was withdrawn from Pannonia and *legio II Augusta* from Argentoratum. There was obviously felt to be little immediate threat on the upper Rhine and Balkans. The auxiliary contingent of the invasion force may have numbered nearly half of the total of 40,000 soldiers, but it is difficult to ascertain how many were pre-existing units and how many were newly raised. It seems likely that the eight *cohortes Batavorum* and the unknown number of *cohortes Tungrorum* that appear at about this time were raised for the invasion.⁷⁴ Recruiting large numbers of males of military age from these peoples would have also diminished the chances of trouble or revolt in the region of the lower Rhine for many years.

On receiving the news of the initial successes, Claudius travelled to Britain to oversee the final battle. After the victory over the Catuvellauni and a sixteen day stay on the island, he returned to Rome taking about five or six months for the journey.⁷⁵ The initial stages of the journey from Britain were most likely by the Rhine and Danube rivers. Ease of transport, the need to review and inspect the troops and installations of the army in Germany and probably some desire to see places connected with his family, all made this route the most expedient. This route through the camps of his German army brought him to places and units associated with his father and brother. The wish to bask in his newly found military glory in the midst of his loyal army would also have been strong.⁷⁶ The Rhine and Danube rivers pass through the three frontier provinces of Germany, Raetia and Noricum, all of whose garrisons and infrastructures were reorganised at this time. The *via Claudia Augusta*, which Claudius completed in 46 and which had been planned by his father, ran from the Danube to Augusta Vindelicorum through Raetia, finally descending from the Brenner Pass to Tridentum. Claudius' return route included the Po Valley and Ravenna, as is attested by

74 Cheeseman has these as the *octo auxiliarium cohortes* sent by Nero in 61 mentioned by Tacitus (*Ann.* 14, 38). Cheeseman G. L., *The Auxilia of the Roman Imperial Army* (Oxford (1914), 19, n. 4. Saddington considers that they were part of the original invasion force. Saddington (1982, as in n. 21), 92.

75 Dio 60, 23.

76 Levick, Barbara, *Claudius* (London 1990), 143.

Pliny's report of his trip on the Adriatic in a 'floating palace'.⁷⁷ This last anecdote, the completion of the *via Claudia Augusta* and the extensive changes in all three provinces, all indicate a military review by the Emperor in person.

Military installations

During the Republican and Augustan/Tiberian periods, the standard camp shape of the Roman army was polygonal with the defences following the contours of the land. During Claudius' principate the shape of the forts changed to a rectangular, or sometimes a square shape.⁷⁸ Another innovation was in the change of the layout of some forts. Where previously the main street, the *via principalis*, had run longitudinally down the axis of the fort, it now ran along the shorter axis. This became the standard design for forts from this time on.⁷⁹ Also at this time, forts and fortresses on the left bank of the Rhine became permanent with legionary buildings beginning to be built in stone. At Vetera, the hospital was rebuilt in stone, although the rest of the fortress was not completed until Nero's reign.⁸⁰ Not only legionary forts on the Rhine were affected. Further south, at Köln-Alteburg, the remains of what was probably the main base of *classis Germanica* have been found. This fort consisted of an irregular polygonal shaped camp which can now be dated to Claudius' reign on ceramic evidence, not to that of Tiberius, as had been previously thought.⁸¹

Mogontiacum was the site of the memorial tumulus to Claudius' father, Drusus, and Suetonius wrote that ceremonies were held there in commemoration of his death.⁸² These were held on 14 September, while the ceremonies for Germanicus were held (not at Mogontiacum) on 10 October. Both events would have provided a focus for an imperial occasion for Claudius and it seems likely that he visited the fortress, the base of the newly formed *legio XXII Primigenia*, on his way up the Rhine.⁸³

At some stage during Claudius' reign the line of forts in Raetia was brought up from the interior of the province to the south bank of the Danube. Communications back to Italy were made easier with the completion of the *via Claudia Augusta*. In this area the fort at Oberstimm in the east of the province (one of the

77 Pliny, *NH* 3, 119.

78 There is an exception to this pattern at Hofheim, as well as the naval camp at Köln-Alteburg. Johnson, Anne, *Roman Forts* (London 1983), 234.

79 Johnson (1983, as in n. 78), 239.

80 Johnson (1983), 234.

81 Reddé (1986, as in n. 52), 291–2.

82 Suetonius, *Divus Claud.* 1, 5.

83 Levick (1990, as in n. 76), 143.

few to be excavated) was occupied from c. 40 until 69/70 and provides one of the best examples of the new type of Claudian fort.⁸⁴

In Noricum to the east there were also similar occurrences. The *via Claudia Augusta* opened this province to trade and traffic across the Brenner Pass and the increased number of urban foundations at this period also led to economic growth. Here too the army was moved up to the line of the Danube. During Claudius' reign, the mining centre of Magdalensberg was abandoned, as were other military posts in the interior and at least four, if not more timber and earth forts were built on the south bank of the river.⁸⁵

These are all indications of the development of permanent installations and a change in concept and function for the military. The army can now be seen as guarding the frontier, whereas previously it had seemed to be to some extent an army of occupation waiting to move on. On the Danube, especially, the move from the interior to the river boundary can be seen as shielding the newly enfranchised province of Noricum.⁸⁶ This seems to have been a factor in the reorganisation of Raetia too.

It seems that further east, in Pannonia and Moesia, the changes from the policies of Augustus and Tiberius were minimal.⁸⁷ These provinces were not on the direct road to Italy and it seems unlikely that Claudius went through them on his way to Rome. There seems to be a relationship between the provinces that had an imperial visit and had consequent reorganisation and development, and those that did not receive a visit and underwent less change.

Foreign policy

Although Tacitus questions his motives, Tiberius' instructions to Germanicus to wind up operations in Germany and leave some *materiem Drusi fratris gloriae*⁸⁸ may have in fact been sincere. With hindsight, however, we know that the energies of the reign were to be consumed in the politics of dynasty and succession, but that was by no means obvious in 16. With two adult Caesars and half a dozen younger males in the next generation, it might be thought that the German wars might be a military training ground for Roman princes for decades, as they had been for the previous thirty years. However, within seven years both Germanicus and Drusus were dead and their children were too young or too distrusted by Tiberius to be sent away from Rome, especially in control of armies.

84 Johnson, (1983, as in n. 78) 238.

85 Alföldy, Géza, *Noricum* (London 1974), 103–4.

86 Alföldy (1974, as in n. 85), 84.

87 Mócsy, András, *Pannonia and Upper Moesia* (London 1974), 40–1.

88 Tacitus, *Ann.* 2, 26.

On the Rhine Claudius' actions were, on the surface, similar to those of Tiberius, in that there was little offensive military action. But on closer examination they seem to have reflected a different policy. There were still to be no wars of aggression, because the Rhine and Danube were now regarded as permanent frontiers, hence the building of permanent forts and the replacement of timber buildings with stone, both indications of permanence. The Germans on the east bank were to be fought with diplomacy rather than force of arms. So Italicus, Arminius' nephew, was despatched to be ruler of the Cherusci and though he was later expelled from Germany, he returned later, but without much aid from the Romans, who were content to let him be a disruptive factor in German tribal politics.⁸⁹ In addition, Corbulo was forbidden from making war on the tribes of the east bank of the Rhine and was instructed to withdraw back across the river.⁹⁰ These changes mark an official acknowledgement of a new policy. Henceforth, the Germans were to be left alone and encouraged to fight each other and the period of expansion to the north was recognised as closed.

Military technology

The most obvious signs of reform in the military are apparent in the area of technology. An examination of the development and change in military equipment that occurred during the first century AD shows that many different basic items underwent change, some of it quite major, all at about the same time at some stage in the 40s or 50s. Even in cases where it is not possible to be very precise with the dating because of the paucity of the remains, as for instance with the shield (*scutum*) and javelin (*pilum*), it is still clear that the changes fall over the same time span as the changes in those items which we can date more securely, such as the sword (*gladius*), helmets and body armour.

This points to a deliberate and planned reform in most areas of military technology and weaponry, which can only be explained by attributing it to a series of orders and instructions to all parts of the Roman army. Such a reform can have only come from the centre, and more particularly from the 'master of the soldiers', the Emperor himself.

While some of the changes took longer to implement than others, and many of them involved great labour and expense, the initiative and the instructions for them can be placed in the first few years of Claudius' reign, in the early 40s and in the period when the new *princeps* was reforming other areas of government and administration.

89 Tacitus, *Ann.* 11, 16–17.

90 Tacitus, *Ann.* 11, 19–20.

Swords

During the 40s and 50s there was an abrupt change in the design of the infantry sword. The sword of the early Principate was developed from the *gladius Hispaniensis* of the Republican legions, which it closely resembled. This weapon was ideal for the type of swordplay, which had been traditional in the Roman army for centuries, namely thrusting with the point of the weapon rather than slashing with the edge.⁹¹ Apart from the finds buried by the eruption of Mount Vesuvius at Pompeii and Herculaneum, most of these swords in the archaeological record have been found in the military zone on the northern frontier. It has been argued that the reason for the predominance of finds in the north, as oppose to finds from other parts of the Empire, is because of the Germanic and Celtic custom of depositing valuables, especially weapons, in water as offerings to deities. Many of the finds come complete with scabbards, and this could be more easily explained if the deposit were deliberate, rather than accidental.

The first imperial type of *gladius*, with a waisted blade and slender point, is classified by Ulbert as the 'Mainz' type.⁹² These swords were common on the northern frontiers, especially on the Rhine, with many examples found near Mainz itself (including the 'Sword of Tiberius') and at other sites such as Haltern,⁹³ Neuss and Rheingönheim.⁹⁴ They are also found in the context of the pre-Claudian frontier zone in Noricum at Magdalensberg and Salzburg, and in Germany at Vindonissa and Argentoratum, both legionary fortresses that were occupied throughout the first century AD. 'Mainz' type swords are also found at sites such as Chichester⁹⁵ and Fulham, both of which are Claudian sites associated with the invasion of 43. The majority of the finds of 'Mainz' type swords were found in contexts that are either pre-Claudian or from the first years of Claudius' reign. The latest known example, that from Rheingönheim, was found on a skeleton in the auxiliary fort that was destroyed in the fighting during the Civilis Revolt of 70, but the sword itself has an Augustan date.⁹⁶

91 Polybius, *Hist.* 6, 39. It was to remain the preferred method of hand to hand combat for the Roman army well into the imperial period, as is witnessed by Tacitus' description of the Battle of Mons Graupius in 83/84, when the Batavian and Tungrian auxiliary cohorts were called in to 'fight it out at a sword's point'. Tacitus, *Agri.* 36.

92 Ulbert, Gunter, 'Gladii aus Pompeij. Vorarbeiten zu einem Corpus römischer Gladii', *Germania* 47 (1969), 118–19.

93 Haltern (Aliso?) and Oberaden were both double-legion camps, which were abandoned immediately after the defeat of Varus in 9, thus giving a firm date for any finds at the sites.

94 Ulbert (1969, as in n. 92), 118–19 and 127–8.

95 'From the Plautian phase (i.e. 43–47)'. Lang, Janet, 'Study of the Metallography of some Roman Swords', *Britannia* 19 (1988), 203.

96 Bishop, M. C. and Coulston, J. C. N., *Roman Military Equipment* (London 1993), 192.

This may reflect the 'handing down' of legionary equipment to auxiliary forces,⁹⁷ or it may indicate the re-issue of weapons which had been placed in storage in the intervening years and which were only issued in a time of crisis, such as during a revolt or a civil war.

The newer type of sword, which is classified as the 'Pompeii' type, is typified by the four examples from Pompeii and the one from Herculaneum and consequently has a *terminus ante quem* of 24 August 79.⁹⁸ The shape of this sword is quite different from the 'Mainz' type, having a parallel-edged blade and a shorter point. Other examples of the 'Pompeii' type quoted by Ulbert are from the fort at Newstead in the north of Britain.⁹⁹ There is a piece of scabbard from Verulamium in a pre-Boudiccan context (so before 61), which has 'possibly the earliest archaeological manifestation' for this weapon. There are also examples from Hod Hill and Waddon Hill, the latter dated to before 64.¹⁰⁰

This was an abrupt change in the shape of the infantry short sword that can most rationally be explained if there was a change in sword-fighting tactics. Any change in such a basic and common feature of military practice must have been implemented over a short period of time throughout the whole army. The system of transfers and promotions between different legions and between legions and auxiliary units, would require a degree of standardisation in both training and equipment for all soldiers. Such things as the promotion of legionary *milites* to auxiliary centurion, the stationing of legionary and auxiliary units together, the moving of units around the Empire, for instance from the Rhine armies to the East and back, would all have been more difficult if there were major differences of training, logistics and equipment.

Ulbert dates the introduction of the new sword to Claudius' principate and its being brought into general use in the second half of the first century.¹⁰¹ Lang, in her study of the metallography of Roman swords, gives c. 50 as the date of the changeover from the 'Mainz' type to the 'Pompeii' type.¹⁰² She also makes the point that the swords that she examined showed that those made later (the 'Mainz' type after 50) were of inferior quality to the earlier swords, which had been quenched and autotempered. This gave the earlier swords a better cutting edge than the later 'Pompeii' type, as well as most Iron Age swords in general. She concludes that the changes in technology were related to 'changes in recruitment policy and organisation within the Roman army' without being

97 Ulbert (1969, as in n. 92), 118–19. We do not know whether there was any sort of priority in the issue of equipment between legionary and auxiliary forces, although it has been assumed that the legions got new equipment first.

98 Ulbert (1969, as in n. 92), 118.

99 Ulbert (1969), 126.

100 Bishop and Coulston (1993, as in n. 96), 71.

101 Ulbert (1969, as in n. 92), 126.

102 Lang (1988, as in n. 95), 209.

specific about what the changes might have been.¹⁰³ The 'Pompeii' type was perhaps better suited to slashing as well as thrusting, but it is difficult to know what effect recruitment or organisation could have had on such weaponry in the Roman army.

As to the question of the inferiority of the metal in the swords themselves, there are many explanations that could explain a variation and drop in standards of military equipment. One is that it was as a consequence of a decision to replace standard items very quickly. Swords do not easily wear out and they would last for many years without needing replacement. For instance, the Augustan-dated example found at Rheingönheim was still in use at least sixty years after its manufacture. The replacement of the 'Mainz' type sword by the 'Pompeii' type necessitated the manufacture of tens of thousands of new swords over a relatively short space of time. The need to use smiths as part of a crash programme of replacement, men who may not have been armourers and were less experienced in making weapons, could explain an inferiority in production.

Whatever the reason for this very costly change in equipment, it is certain that it took place during the early years of Claudius' principate. Even if all of the swords were not replaced immediately, which would surely have been an impossible task, the decision to make the change was made early in order for it to have been completed as early as it was.

Helmets

The study of Roman imperial army helmets of the first century AD has thrown up a profusion of types and sub-types. To confuse the matter further, there are at least two systems of classification, one a linear British system developed by Robinson¹⁰⁴ and the other a continental system with types based on site names.¹⁰⁵ It is not necessary to go into the whole study of Roman helmets, and an examination of the change from Robinson's Coolus type/the continental Hagenau type to his Imperial-Gallic type/the Weisenau type will suffice.

The Coolus/Hagenau type has its origins in Italian helmet design and is a development from the Montefortino type. Because its simple shape and bronze composition it was cheap to make and supply to the armies of the late Republic and to the later armies of the civil wars and early Principate. It was used, though with some minor changes, into the Augustan and Tiberian periods. These minor changes involved adding protection to the neck by extending the neck-guard and soldering reinforcing peaks to the brow of the helmet. However, the Imperial-Gallic/Weisenau type is an adaptation of the classic Gallic helmets of

¹⁰³ Lang (1988), 210.

¹⁰⁴ Robinson, H. Russell, *The Armour of Imperial Rome* (London 1975), 26–8.

¹⁰⁵ Bishop and Coulston (1993, as in n. 96), 93.

the first century BC and it reflects the often superior metal-working traditions of the Gauls. Being most often made of iron (though occasionally of bronze), it required a far higher level of skill and expertise to make. Unlike bronze, iron cannot be spun, so the bowl shape of the Coolus/Hagenau type was replaced by a beaten head-piece with a deeper and larger neck-guard, which provided far greater protection than the earlier types because of the harder iron and the changed shape and depth. The helmet is deeper at the front and the back extends further down the head, with the neck-guard so wide and angled as to nearly rest on the shoulders. There was also more decoration on the later helmets with the addition of bronze and silver fittings.

The Coolus/Hagenau type helmets are found in Augustan and Tiberian contexts in the German provinces, at sites such as Nijmegen, Mainz, Haltern and Oberaden as well at Schaan in Liechtenstein. They are also found at southern British sites that are associated with the invasion of 43, namely from the river Thames at Kew, from Hod Hill and from Bosham harbour on the south coast (dated to 43/44).¹⁰⁶ None are found at British sites that do not have connections with the initial invasion and all of the examples date to the period 43–50.¹⁰⁷

There are occasional examples of the Imperial-Gallic/Weisenau type from before Claudius' reign, such as the one in the burial at Nijmegen (Imperial-Gallic A), which is probably Augustan, and one from Haltern (which must be Augustan from pre-9), but the vast majority date from the 40s.¹⁰⁸ The Valkenburg example, dated to 39–42/43, which Robinson calls Imperial-Gallic E, is the earliest example of the common issue of these helmets which by the 60s was the main type of Roman army helmet.¹⁰⁹ Lang in her study of swords also notes that the change in sword design 'roughly coincides with a change in the helmet shape in the reign of Claudius',¹¹⁰ and it is this coincidence which is important. Like the change in sword design, the change in helmet design may reflect a change in fighting tactics. Also, like the change in swords, a change in helmet design is not one that could be implemented overnight, and similarly it is a change that involved some expense and effort. This change must have been implemented throughout the Empire, as the find of a helmet at Hebron(?) in Judaea witnesses.¹¹¹

106 Robinson (1975, as in n. 104), 27–37.

107 Robinson (1975), 33.

108 Robinson (1975), 45–6.

109 Robinson (1975), 56. The fort at Valkenburg was built just before the invasion of Britain and may have initially been intended as a supply base for Caius' projected campaigns in Germany or Britain or for Claudius' actual invasion. Johnson (1983, as in n. 78), 235.

110 Lang (1988, as in n. 95), 200.

111 Imperial-Gallic G according to Robinson. Robinson (1975, as in n. 104), 71. However, the relatively sparse evidence for the east makes firm conclusions more problematic. The transfer of western units to Vespasian's army in Judaea may account for the presence of these items.

This helmet was not invented in the 40s or 50s, but was in limited use early in the principate. But it is clear that the army was supplied with a new and improved helmet sometime during Claudius' reign. Like any manufactured item in pre-industrial society, the huge number of helmets needed would have taken many years to make. The decision to make the change would have predated the actual completion of the process by many years, but unlike the changeover to a different sword, the change to a different helmet would have been less urgent. This decision can be reasonably placed in the early 40s in the first few years of Claudius' reign.

Armour

By the end of the Republic, the standard Roman legionary body armour was the *lorica hamata*, a chain mail shirt of Gallic derivation, which had been in use since the second century BC.¹¹² Very flexible and durable, it weighed about 7 kilogrammes, with extra flaps over the shoulders, which doubled the thickness of the mail on the vulnerable upper part of the body. It remained in use to a greater or lesser extent at least up until the end of the Principate in the third century.¹¹³ By the second half of the first century AD legionary soldier (at least) were wearing a new form of body armour, the name of which is unknown, but which has been called *lorica segmentata*. The *lorica segmentata* was a carapace made up of laminated girdles of soft iron plates, fixed to leather straps on the inside. The whole assembly is held together on the outside by hinged buckles and straps and it probably weighed as little as 5.5 kilogrammes. Over more than two centuries of its use, it went through various adaptations, but the earliest type is known as Corbridge A and it is the introduction of this type which is considered here.¹¹⁴

Like the changes in other items of equipment, this was a deliberate and costly technological development, again possibly relating to changed tactical needs. Chain mail protects the body, but does not spread the shock of the blow and a slashing or piercing blow could still drive in to the flesh with the flexible

112 Polybius, *Hist.* 6, 23, 9.

113 It is not only found on military sites throughout the period, but it is portrayed on sculpture like Trajan's Column, the *Tropaeum Traiani* at Adamklissi and on the Arch of Severus. Robinson (1975, as in n. 104), 170–1.

114 The three main types, Corbridge A, Corbridge B and Newstead are all named for examples found at the two British sites. At Corbridge, a wooden chest was found (dated to 98–100) with sets of plates complete with leather straps, hinges and buckles. This allowed analysis and reconstruction of finds at other sites, finds which were generally confined to the more fragile hinge and buckle parts, but rarely the plates. Robinson (1975, as in n. 104), 174–81.

mail, causing a wound. The laminates strips of the *lorica segmentata*, which were made of soft iron, perhaps deliberately, absorbed and spread the force of the blow much more effectively. While mail is very flexible, it seems as if the new type of armour also provided sufficient flexibility but with added protection. The laminated shoulder plates would have provided far more protection than the doubled mail shoulder flaps, perhaps an incentive for change when dealing with downward slashing blows of long Celtic swords.¹¹⁵

Like the sword and helmet, the mass use of the *lorica segmentata* can also be dated to Claudius' reign. Finds of parts of Corbridge A *lorica* come from the lower Rhine at Valkenburg (the fort is dated to 39–42/43), from Magdalensberg (abandoned c. 45), from Chichester (deposited by 47?) and from Camulodunum (left by *legio XX* when it moved west in 49).¹¹⁶ Fragments of a shoulder plate have been identified at Gamala, the site of a siege by Vespasian in 68.¹¹⁷ It was probably used by the eastern legions as well.

The find of a piece of laminated shoulder plate at Kalkriese, the site of the defeat of Varus' army at the Teutoburg Forest in 9, as well as the find at Dangstetten (dated to around 9 BC), indicates that the armour was not a new invention in Claudius' time.¹¹⁸ It has been argued that this find proves that the introduction of *lorica segmentata* belongs, therefore, to the Augustan period.¹¹⁹ However, the existence of this armour in military contexts before Claudius is not incompatible with its mass introduction to legions by that Emperor. The individual soldier was permitted a wide degree of latitude in equipping himself and it was quite in order for a wealthy soldier, even perhaps special troops, to be equipped with better equipment than their fellows. In addition the Augustan finds, while incomplete, are of a type different to that of the late first century AD. They share characteristics with the later Corbridge types, but the fittings are of a completely different form.¹²⁰ They do however still appear in Claudian sites in Britain.

115 Tacitus claimed that the Germans *rari gladiis aut maioribus lanceis utuntur*. Tacitus, *Germ.* 6. Perhaps the renewal of warfare with the British Celtic warriors with their Gallic long swords provided this incentive for technological change.

116 Bishop and Coulston (1993, as in n. 96), 85 and Bishop, M. C., *Lorica Segmentata. Vol 1. A Handbook of Articulated Roman Plate Armour* (Duns 2002), 31.

117 See n. 108.

118 Schlüter, Wolfgang, 'The Battle of the Teutoburg Forest: archaeological research at Kalkriese near Osnabrück', in Wilson, R. J. A. and Creighton, J. D. (edd.), *Roman Germany: Studies in Cultural Interaction* (Portsmouth RI 1999), 136; Bishop (2002, as in n. 116), 23–5.

119 Wilson, R. J. A. and Creighton, J. D., 'Introduction: Recent Research on Roman Germany', in Wilson, R. J. A. and Creighton, J. D. (edd.), *Roman Germany* (as in n. 118), 14.

120 Bishop (2002, as in n. 116), 23.

It is unlikely that *lorica segmentata* was produced to make up for the loss of the equipment in the destruction of the *legiones XVII*, *XVIII* and *XIX* in 9. When Augustus reformed the army after Actium, he had nearly 60 legions around the world, many certainly under-strength and under-equipped, but he discharged tens of thousands of soldiers to be left with a final total of 28 legions. The armouries of the Roman world must have had spare sets of *lorica hamata* for decades, surely enough to equip the new cohorts that were formed after the massacre. It would also have been impossible to manufacture quickly the thousands of sets of *lorica segmentata* that were needed for the emergency formation of approximately thirty *cohortes voluntariorum* and *ingenuorum*. The raiding of armouries around the Mediterranean, even of client kingdoms in the east, was surely a more practical solution. Also, the appearance of the *lorica* becomes more common towards the 40s and 50s rather than in the years immediately after the *clades Variana*. While not conclusive, there are good reasons to place the mass supply of this armour to the army as a whole in the Claudian period.

Shields

The traditional Roman oval shield had been in use since the fourth century BC. By the beginning of Augustus' reign the shape had changed with the top and bottom being chopped off giving it a 'wrapped-around clipped oval' shape. Sometime in the first century AD, there was a third change to the traditional imperial shape, the 'wrap-around rectangular' legionary shield. Very few actual shields have been found, which is not surprising when one considers that they were made from plywood and do not survive well in damp conditions.¹²¹ What have survived more commonly, especially in the damper conditions of the northern frontier, are the goatskin leather covers, whole or in fragments, which were used to protect the shield when not in use. These date to at least Caesar's time.¹²² Among the leather material found in the legionary fortress at Vindonissa were several of these shield covers and they give a good idea of the shape of the shields, as well as showing a wide variety of types, not all of which had been previously known.¹²³ However, it is not possible to date the change in shield type from 'wrap-around clipped oval' to 'wrap-around rectangular' more precisely than to some time in the mid first century AD. This is at least not

121 Those that have been found have not been from the first century AD and have mostly been found in the dryer conditions to the east, at Dura-Europus in Syria and in the Fayum in Egypt. Bishop and Coulston (1993, as in n. 96), 58 and 149.

122 Caesar refers to the speed of the attack by the Nervii in 57 that left no time to remove these covers. Caesar, *BG* 2, 21.

123 Bishop and Coulston (1993, as in n. 96), 82.

incompatible with a suggested reform of all military equipment under Claudius in the 40s.

Pila

The shock weapon of the Roman legionary was the *pilum*. Thrown in a volley just before the moment of impact of the battle line, its armour piercing point could penetrate shield and body armour to impale the warrior behind. Modern experiments show that standard early *pilum* can penetrate 30 mm of pine or 20 mm of plywood when thrown from 5 metres.¹²⁴ Those *pila* were reconstructions of some found complete with rivets, collets and wedges at the legionary fortress at Oberaden that was abandoned c. 8/7 BC. However on the Cancelleria Relief in the Museo Vaticano, which portrays Domitian in c. 90 accompanied by members of the *cohors praetoria* there are sculptures of several *pila* of a new type. These have a bulbous shape between the shank and the shaft, which is carved with an eagle and are perhaps lead weights to give added penetration power. There are no known examples of this weapon, but it was probably introduced in the first century AD and it is impossible to be more exact than that.

Artillery

According to Vegetius, each *legio antiqua* was equipped with a certain number of artillery pieces. These consisted of a *ballista*, a heavy stone thrower, for each cohort, and a *carroballista*, an arrow firing catapult, for each century.¹²⁵ The bolt from one of these artillery pieces was found buried in the spine of one of the British dead from Maiden Castle, killed in the storming of the defences by Vespasian's *legio II Augusta* in 45. It is a graphic demonstration of the power of these weapons. A late version of the *carroballista* is portrayed on Trajan's Column, wheeled and with the mule or ass, which towed it.¹²⁶

This late version was made of iron, and was less likely to be affected by humidity and damp, unlike the earlier version which had far more wood used in its construction. Part of the earlier version was a bronze front plate on the top of the machine face. There is a unique surviving plate of this type that was found on the site of the battlefield of the Second Battle of Cremona which was fought in October 69.¹²⁷ The plate, now firmly identified as a catapult part (rather than

124 Bishop and Coulston (1993), 48.

125 Vegetius, *Epitoma rei militaris* 2, 25.

126 Scene xl and lxvi.

127 *ILS* 2283.

the key-hole of a treasure chest), belonged to the Vitellian *legio IIII Macedonica*.¹²⁸ This legion had been based at Mogontiacum in Germania since its transfer from Spain in 43, when it declared for A. Vitellius in 69. The name of the legion is along the top of the plate (LEG IIII MAC) and the bottom line has the inscription C HORATIO ..O PRINC P, which Dessau interprets as *princ p[raetorii]* after Mommsen.¹²⁹ It seems more probable that this should be read *principi priori*, the title of the centurion immediately below the *primipilus* and the man responsible for nearly all administration in the legion, the officer who Speidel calls 'the most essential centurion of the legion'.¹³⁰ Above the name of Horatius is that of the legate of Germania from 42 to 45 C. Vibius Rufinus. It is also dated prominently on either side of the firing aperture with the consuls for 45, M. Vinicius II and T. Statilius Taurus Corvinus. It has been suggested that a smaller plate is missing from along the top because the existing plate is not high enough to fit exactly the shape of the *carroballista*. It has been postulated that this plate bore the name and titles of the emperor in 45, Claudius.¹³¹

Without even considering the possible presence of the emperor's name, the reason for the consular date on this plate is obscure. It is unlikely to be the date of Claudius' visit to Mogontiacum, nor anywhere else where the legion was stationed. Claudius returned to Rome to celebrate his triumph in 44 after an absence of five or six months,¹³² and he is not recorded as having undertaken such a journey to the Rhine again, so it probably does not commemorate some personal gift or presentation. It is difficult to think of any reason why an artillery piece of a legion of the German garrison in 69 would have an inscription with a twenty-four year old date. Presumably, this is the date of the issue of this particular *carroballista* and perhaps the date of issue of other artillery pieces throughout the army. It seems unlikely that this was a unique piece of equipment nor a unique inscription. Perhaps one of the reforms of the period was the issue of artillery pieces to the smaller units of the legion.

The coincidence of the dates of the introduction of new types of such basic military items as swords, helmets and body armour indicates a deliberate reform of weaponry in the early 40s. Such a reform in the army, across whole provinces and regions, can only have been ordered by the government in the centre, which in this context can only have been the emperor in his role as military commander-in-chief.

128 Baatz, Dietwulf, 'Ein Katapult der *Legio IV Macedonica* aus Cremona', *Röm. Mitt.* 87 (1980), 283–99.

129 *ILS* 2283 n. 4.

130 Vegetius, *Epitoma rei militaris* 2, 8. Speidel, Michael P., 'Princeps as a Title for ad hoc Commanders', *Britannia* 12 (1981), 7.

131 Wilkins, Alan and Morgan, Len, 'Scorpio and Cheiroballistra', *JRMES* 11 (2000), 88–9.

132 Suetonius, *Divus Claud.* 17, 3.

Conclusion

An examination of the changes in the organisation of the Roman army as recorded by Tacitus, Suetonius and Dio shows that Claudius implemented a series of reforms involving the equestrian command structure, fleet commands and legionary and auxiliary conditions of service. These literary sources are affirmed by epigraphic evidence. Where strategy and foreign policy are concerned, a change is indicated by both the literary evidence and also by the archaeological evidence, especially when one looks at the provinces of the Rhine and Danube, provinces which Claudius probably visited early in his reign. A study of changes in military technology is even more convincing. It is possible to fix changes to types of important military items to dates early in his reign and that provides strong indications of a reform of the military at the very core of the army's function, its weapons and armour. Taken together, these various facts and occurrences give unmistakable evidence of a centrally ordered reform of many aspects of the Roman armed forces carried out by the Emperor Claudius.

The University of Auckland, New Zealand

Chris Thomas