This dissertation is the end product of a research project made possible by the Radboud University Nijmegen and the Netherlands Organisation for Scientific Research with the PhDs in the Humanities funding instrument.

The principal aim of the research project was to gain a better understanding of the composition and deployment of the Roman army in the Lower Rhine area during the 1st century AD. At that early stage the Roman army brought new objects and ideas to the border region, facilitating a major transformation of culture. This army had two distinctive but largely ignored features: not only was it very mobile, but the soldiers also had very diverse backgrounds.

Three selected archaeological categories, namely graffiti, militaria and fibulae, served as the main sources of information. Markers for cultural diversity were mapped out, in order to trace the origins of the soldiers and the people who followed in their wake. Indications for the presence of various types of military units were collected, analysed and interpreted. This has led to the main conclusion that the Roman army operating in the Lower Rhine area during the 1st century AD was more diverse and more mobile than previously assumed.
Miles away from home

Material culture as a guide to the composition and deployment of the Roman army in the Lower Rhine area during the 1st century AD

Proefschrift ter verkrijging van de graad van doctor aan de Radboud Universiteit Nijmegen
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‘I have already explained to you that what is out of the common is usually a guide rather than a hindrance. In solving a problem of this sort, the grand thing is to be able to reason backwards. That is a very useful accomplishment, and a very easy one, but people do not practice it much. In the everyday affairs of life it is more useful to reason forwards, and so the other comes to be neglected. There are fifty who can reason synthetically for one who can reason analytically.’
‘I confess,’ said I, ‘that I do not quite follow you.’
‘I hardly expected that you would. Let me see if I can make it clearer. […]’

_Arthur Conan Doyle, A Study in Scarlet_
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Cover design: drawing of soldier by R.P. Reijnen / Radboud University; image of fibula (BLC type 52) from Vechten provided by J. van den Engel-Hees / PUG; image of ring bit from Neuss provided by C. Pause / Clemens Sels Museum Neuss; image of graffito on pottery fragment from Utrecht provided by H. Lägers / Erfgoed Gemeente Utrecht.

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I Introduction

I.1 Aim and scope

By the end of Trajan’s reign, the Lower Rhine area had undergone a thorough cultural transformation. By then, to illustrate this with a few examples, the gods of the Roman pantheon had found their way into the corners of the region, wheel-thrown pottery had acquired a prominent position in provincial society and Roman-style villas had made their appearance in the countryside. This cultural transformation was greatly facilitated by the mobility, the movements, of soldiers in the Roman army. They introduced a culture to the Lower Rhine area that contained influences from very different backgrounds, including their own as well as those of regions in which they had been operating. But the soldiers were not the only agents of cultural change. In their wake followed their relatives, traders and craftsmen, and official administrators. This resulted in a flow of new ideas and objects to the frontier zones. Hence it can be stated that the cultural transformation that took place in the Lower Rhine area was ultimately the product of the mobility of people, especially those involved with the Roman army.

This study aims to assess the composition and deployment of the Roman army operating in the Lower Rhine region from its first arrival until the end of Trajan’s reign. Who were the soldiers who came to this border region in the Early Roman Empire? Where did they come from, and what did they carry with them? The material culture the soldiers and their relatives brought to the Lower Rhine area is the main guide in the search for answers to these questions.

The research area consists of the military settlements on the left bank of the river Rhine, from Remagen in the southeast to Katwijk aan Zee in the northwest (fig. 1); towns and other settlements in the frontier zone are incidentally considered as well. By the end of the 1st century AD this region belonged to the province of Germania inferior. The chronological period under investigation ranges broadly from the reign of Augustus (27 BC-AD 14) to that of Trajan (AD 98-117), with the first military installations of the imperial Roman army in the research area having been built in the second decade BC.

The choice for the Lower Rhine area during the 1st century as a case study was first of all inspired by the circumstance that the mobility of the military units of the Roman army in general was at its largest in the 1st century AD. At that time, the Roman Empire was in a highly expansive phase. Army units were deployed to conquer new territories, to suppress revolts within the Empire and to protect the border regions against enemies from outside. The high mobility of soldiers at the beginning of the Imperial period, especially in the 1st century AD, entailed that those soldiers who were sent to far-away, peripheral territories came into contact with local objects and ideas. Such foreign influences were, intentionally or unintentionally, incorporated in the communal (Roman) culture they carried with them. After the reign of Hadrian (AD 117-138) unit displacements decreased progressively. Where rivers as natural boundaries were not at hand, Hadrian decided to demarcate the boundaries of the Empire, with artificial barriers such as the wall in northern Britannia and the palisade at the Upper German-Raetian frontier. By then the role of the auxiliary units had changed from the offensive to the defensive. They became permanently attached to a particular province, making unit displacements a rare phenomenon. In periods
of crisis composite detachments (*vexillationes*) may have been created and deployed instead of transferring complete military units.¹

A second consideration was that prior to the arrival of the Roman army contacts between people from the Lower Rhine area and the Mediterranean had been minimal, because of the position of the former on the northern periphery of the Roman Empire. With the arrival of the Roman army the inhabitants of the Lower Rhine area were rather suddenly confronted with Roman culture. This culture itself had been developing for centuries, and was still in process of doing so. Its basis was created in the Mediterranean heartland of the Empire, but it had already incorporated influences from many different cultures assimilated into or, in a less radical sense, connected to the Roman world.

Thirdly, the soldiers serving in the Roman army in that early period came from a relatively limited number of areas, but their cultural traditions could nevertheless differ considerably. The legions were the backbone of the army. Legionary soldiers had to be Roman citizens. Originally, legions were raised in Italy or the early Romanised Mediterranean areas, but as time progressed more and more men in the provinces attained full Roman citizenship and were thus entitled to join the – better-paid – legions. This main legionary force was augmented by the fleet and by auxiliary units supplied by new allies and conquered tribes in peripheral regions. They covered diverse worlds, ethnicities and identities. The Roman army may often be looked upon as a single entity, but it was much less homogeneous than the term ‘Roman’ suggests.² Focusing on the men serving in the auxiliary units, they predominantly came from areas recently added to the Roman Empire. Since there had not been much time to integrate, the inhabitants of these regions will still have made use of elements of their own culture rather than Roman culture. Hence, they will have introduced ideas and objects from their own culture to the cultures they came into contact with, whether Roman or non-Roman. Since in this early period the Roman army was inherently heterogeneous and the auxiliaries came from many diverse backgrounds, the material culture brought in by the army contained various elements that clearly differed from the rest. In this way, the soldiers did not convey a homogeneous Mediterranean culture, but created a melting pot, resulting in a multicultural environment containing influences from regions as far apart as the Iberian Peninsula, Thrace and the East.

The cultural diversity of the Roman army is closely connected with the ethnical background of the army units and individual soldiers. In this context, the distribution of different Roman military unit types is also of interest, noting the presence of legionary, auxiliary and fleet soldiers, since these were recruited from different sources. The ratio of infantry versus cavalry soldiers is also relevant, because it appears that some regions supplied more cavalry soldiers than others. Moreover, it may add information to the general nature of units, for instance whether an auxiliary unit may have been partly mounted, and to the way they were deployed. The composition and deployment of the army will be investigated on these levels as well in this study.

### 1.2 Status quaestionis

This research focuses on the question: what were the composition and the deployment of the Roman army operating in the Lower Rhine area during the 1st century AD? It is not the first time that answers to this question have been sought. Especially authoritative studies on the nature of the Roman army in the

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¹ Holder 1980, 2; Knight 1991, 207.
² Carroll 2001a, 104-105.
Lower Rhine region are those written by Konrad Kraft and by Géza Alföldy. Their work is primarily based on literary and epigraphical sources, which, as will be shown, offer only a restricted view, because the sources pertaining to the Lower Rhine area in the 1st century are particularly limited, in number as well as in scope.

As explained above, the Roman army consisted of legionary, auxiliary and naval units. The literary sources are most informative about the presence of legionary forces. Information about the number, names and composition of the auxiliary forces is much rarer and more fragmentary, especially for the pre-Flavian period. It is not to be expected that historical sources and monumental inscriptions can add much more information to what is now known, for they are already well documented. Recent excavations have produced only a limited amount of new epigraphic evidence, including stamps of military units on bricks and tiles.

It is usually thought that the auxiliary units stationed in the Lower Rhine area in the pre-Flavian period consisted predominantly of units levied locally or regionally. On further consideration this notion is principally based on a reversal of the much better documented situation in the Flavian era. For the pre-Flavian period, conclusive literary and epigraphical sources are sorely missed. After the suppression of the Batavian Revolt, the auxiliary units of the Lower German army consisted largely of men recruited among far-away tribes, non-native to the local environment. This is considered to be an intentional measure taken by Vespasian to prevent another outbreak of rebellion led by locally stationed men of native origin.

Rien Polak has already pointed out that when the situation on the Lower Rhine in the pre-Flavian period is compared with the contemporary situation around

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3 Kraft 1951; Alföldy 1968.
Mainz, which is better documented, the apparent parallels in the available (epigraphical) data suggest that the auxiliary army of the Lower Rhineland was not of a predominantly regional composition. In Mainz, the influx from remote areas was considerable in the pre-Flavian period. The same is most likely true for the army stationed in the Lower Rhine region at the time. It probably consisted of more exotic units than just regional units.

As will be further discussed in the chapter on recruitment and deployment, there is hardly any evidence for the presence of regionally levied units in the Lower Rhine area in the pre-Flavian period. Instead, there is abundant evidence for the presence of non-regional auxiliary units. This evidence is firstly found among the available epigraphical and numismatic material, but conclusions based on these find categories are quite limited. However, they provide some interesting pointers, suggesting that more indications may be hidden in the archaeological rather than the literary sources.

Further glimpses shimmering through in the archaeological sources have been the impetus for the present study. A selection of archaeological categories collected at military sites in the Lower Rhine area and datable to the chosen time span constitute the dataset from which new insights into the composition and deployment of the Roman army will be gained. By identifying the presence of specific, exotic markers in the archaeological sources, the character and importance of the various backgrounds of the soldiers can be revealed. Subsequently, it is possible to define their relative contribution to the Roman army and inherently the objects and ideas the army introduced to the Lower Rhine area.

The concepts of cultural transformation and mobility help to better understand the underlying processes and relate them to other phenomena in the Roman world. These two concepts are the foundation of this study’s theoretical framework. Mobility has developed into a research field of its own within the disciplines of ancient history and archaeology over the past two decades. Cultural transformation has been studied more intensively, and for the Roman world in particular under the blanket concept of ‘Romanisation’. In our knowledge of both fields there is still much to be gained. In most recent studies on the process of Romanisation, attention concentrated on which Roman cultural elements were chosen and adopted by native people. How truly Roman those elements were at the outset and, at the same time, what elements the new subjects of the Empire themselves contributed to the imperial culture was mostly left out of consideration. This foreign input will be brought into the limelight in this study. Furthermore, recent studies of mobility in the Gaulish and German provinces did not evaluate the contribution of the army, because of the involuntary nature of the movements of its members. This overpasses the great importance of the army as a catalyst of cultural transformation, and of its strong demographic effect, with the number of soldiers operating in the Lower Rhine area amounting to tens of thousands. As a theoretical framework the concepts cultural transformation and mobility provide the necessary backdrop for the investigation of material culture

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5 Polak 2017, 639.
6 Alföldy (1968b, 141) made an estimation of c. 42,000 regular legionary and auxiliary soldiers stationed in the Lower Rhine area in the reign of Tiberius.
from military sites in the Lower Rhine area, for the material culture was not used in a vacuum.

I.3 Method

The method chosen for this research is to analyse three archaeological categories in conjunction. It pre-eminently illustrates that the proverbial whole is indeed more than the sum of its parts. The three selected categories are graffiti, militaria, and fibulae. The principal idea behind this selection is that these categories in particular encompass material culture of a personally significant nature. Such objects will not so readily have changed hands through trade or other large-scale exchange mechanisms. Each of these three categories sheds light on various aspects of identity, cultural traditions, cultural transformation and mobility, especially in relation to the Roman army.

Firstly, graffiti are in this context owners’ marks scratched mainly on pottery and metal objects. These markings convey personal names which may be traced to specific regions of the Empire. A very appropriate example comes from Krefeld-Gellep. On three ceramic vessels graffiti have been discovered that show foreign names written in an exotic alphabet, namely Aramaic. Although there are strong indications that the men mentioned in the graffiti were not soldiers but civilians, probably Syrian merchants, the graffiti certainly evidence a connection with a foreign and far-away region at this military site.7 Graffiti may even include references to specific military units. An example from most likely the second half of the 2nd century AD has been discovered at Den Haag-Ockenburgh. On two fragments of a mortar, which could not be dated securely, a graffito is inscribed. The text includes what appears to be the abbreviation for the name of the auxiliary unit cohors VI Brittonum.8

Weapons and other equipment, including horse gear, used by soldiers in the Roman army constitute the second category, labelled as ‘militaria’. When militaria of an uncommon non-Roman type are encountered on a Roman military site, they might signal the presence of soldiers of foreign origin. Men trained to fight with such traditional weapons who were later enlisted into an auxiliary unit of the Roman army, may well have brought these types of military equipment with them. Stephan Weiß-König argues that fragments of Germanic shields found in the Rhineland were part of the traditional equipment of allied Germanic warrior bands, who later served in the more conventional auxiliary units of the Roman army. Initially, they appeared to have kept parts of their traditional equipment, in particular their shields, but in the 2nd century AD at the latest their equipment will have been replaced by the standard material of the Roman army.9 Additionally, weaponry and equipment can be related to specific types of troops. For instance, riding spurs are uncommon finds at Roman sites. If they are discovered on a military site, they were most likely left there by horsemen serving in auxiliary cavalry units, who were by origin trained to ride with these pieces of equipment. At Nijmegen-Kops Plateau several spurs of different types have been discovered, of which some can be traced back to the northern Germanic region.10

The third category, fibulae, are brooches used primarily to fasten clothes, but they functioned probably also as identity markers. Tatiana Ivleva used British-

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7 Saddington 2009a, 1023 vs Reichmann 2001, 490-491; 2013. See also below, n. 80.
8 Waasdorp 2012, 131.
9 Weiß-König 2016.
10 Van Enckevort 1997, 561. These pieces will be further discussed in the chapter on militaria (chapter VI).
made fibulae found on the Continent to locate British emigrants who moved overseas in the 1st to 3rd centuries AD. From her research it appears that they are predominantly related to British-born soldiers and veterans who had served in the Roman army, and their relatives. In his publication of the fibulae from Maurik, Jan Kees Haalebos identified various fibula types of foreign origin. They suggest a connection with Germania magna in the 2nd and 3rd centuries AD.

By combining various types of archaeological categories, the evidence for the presence of people with certain backgrounds or connections is built up and strengthened. In her discussion of the category of fibulae, Lindsay Allason-Jones already noted that one should be aware of the limitations of this category, and that fibulae should therefore not be considered to be the only evidence. They should be interpreted in combination with other material, with other indications. This is the method employed in this study.

The analysis and interpretation of the selected archaeological objects is guided by the following question: how may such uncommon, non-local but also non-Mediterranean objects have arrived in the Lower Rhine area? Their exotic, uncommon character makes it unlikely that they arrived here through trade. An imagined Syrian type of pottery will illustrate this. Hypothetically, there are three main routes plausible by which such a Syrian object may have arrived in the Lower Rhine area via Roman army soldiers. Firstly, a Syrian soldier may have been stationed here as part of a Syrian unit. Alternatively, a Syrian soldier may have been stationed here in a non-Syrian unit. Thirdly, a non-Syrian soldier may have previously been stationed in Syria and brought an object which he had acquired there to the Rhineland on his relocation. Regarding the first two routes it is important to know how the mechanisms of Roman army recruitment functioned. Regarding the third route, an overview of which units were stationed when and where in the Lower Rhine area is relevant. For each of these units it must then be investigated where they were stationed previously, before they arrived in the Rhineland. Therefore, these three routes will be taken into account in the analysis.

In selecting and analysing the objects the focus is not confined to objects related exclusively to the male, military sphere. It has been suggested that soldiers and their relatives held on to some consciously selected aspects of their traditional material culture in their new living environments, away from their places of origin. These choices seem to have operated especially in the domestic sphere, determined by women who followed their male kin. The cultural manifestation can vary from pottery traditions and eating habits to more explicit and conscious expressions of origin as part of a social identity. Women are considered to be the prime transmitters of traditional values, ideals and identities which are expressed through clothing and bodily adornment. As an example of ‘female’ objects indicating military mobility, remnants of distinctive northern Germanic types of female footwear found near the Late Roman fort at Cuijk, the Netherlands, may indicate the presence of northern mercenaries. From this perspective, material culture associated with the female sphere can elucidate new and unexpected aspects of military mobility.

Graffiti, militaria and fibulae, the three selected categories, each have their own peculiarities. They differ in number, availability and information value. Their

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11 Ivleva 2012.
12 Haalebos 1986b, 61-68.
13 Allason-Jones 2013, esp. 30.
14 James 2001, 80.
15 Carroll 2013, 571-572.
16 Van Driel-Murray 2009a.
strong and weak points, with possible consequences for the applied research method, will be discussed per category.

I.4 General outline of the study

In this study material culture will be used as a guide to a better understanding of the composition and deployment of the Roman army operating in the Lower Rhine area during the 1st century AD. It will be investigated how particular objects can provide insight in who those men were who came to this border region with the army in the early Roman period. To assess the meaning and significance of these objects, it is of vital importance to realize that they were subjected to a major process of cultural transformation, which produced a new cultural universe in the Lower Rhine region under Roman rule. This transformation, in its turn, was ultimately the product of the mobility of people. The concepts of cultural transformation and mobility are therefore the two cornerstones of the theoretical framework for this study, and will be explored in the first two chapters (chapters II and III). Together they constitute one of two main pillars on which the rest of the study is based. The second pillar consists of an assessment of the evidence on the recruitment of soldiers into the Roman army and their deployment in the Lower Rhine area in the 1st century AD (chapter IV). This provides the necessary foundation for the subsequent evaluation of the selected material culture. The next three chapters each contain a description, analysis and discussion of one of the selected categories of material culture, namely graffiti, militaria and fibulae (chapters V, VI and VII). Although they vary in size and level of contribution, from each of the categories elements of information can be deduced. These elements will be summarized in large tables, with the aim to have a complete overview of the information on the nature and mobility of the Roman army in the research area as conveyed by these archaeological categories. In the concluding synthesis the data from these tables is used to identify the main characteristics of the composition and deployment of the Roman army operating in the Lower Rhine area during the 1st century AD (chapter VIII).
II Cultural transformation in the Roman world

It has long been recognized that societies incorporated in the Roman Empire experienced a transformation of their economic, cultural, intellectual and political domains. At the end of the 19th century, the concept of Romanisation was introduced as an explanatory model for this development. Around this term, a sometimes fierce debate developed, which continues until this day. To illustrate this: Géza Alföldy lists as much as twenty terms advanced as alternatives for the controversial term Romanisation.17

The Roman army undeniably left its mark on society in the border regions. Its presence had a great effect. The soldiers were not only large in number, but also diverse in nature and background. They came from all parts of the Roman Empire, and even beyond, which entailed that the army’s contribution to the process of Romanisation was far from homogeneous. The material culture the soldiers brought with them to the Lower Rhine area must be evaluated with this in mind. In this context, it is relevant to present a concise overview of the debate on Romanisation. Special attention will be paid to the different views on the role the army played in the processes of cultural transformation in the Roman world.

II.1 The history of Romanisation

II.1a From civilising mission to acculturation theory

In the early days of the archaeological discipline, the study of distribution and dissemination of material culture was, similar to migration and mobility, mainly determined by theories of diffusionism. In 1905 Francis Haverfield presented with his The Romanization of Roman Britain the first extensive and explicit discussion of the term. With Romanisation he describes how the provinces of the Roman Empire were ‘given a civilization’ by Roman rule. This process was in his view progressive, swift and uniform in the way it affected primarily the local elites. Haverfield had built his theory on the work of Theodor Mommsen. In contrast to the theory of diffusionism, Mommsen held the opinion that Roman material culture encountered in the provinces had not per se been brought there by people from the Mediterranean heartland of the Empire. In other words, the presence of certain material culture could not be equated with the presence of people with the same ethno-cultural background as the material culture. Alternatively, Mommsen strongly emphasised the homogeneity of the Roman Empire and used the term ‘Romanisierung’ for a planned civilising process that brought the people in the provinces to the same cultural level as the heart of the Empire. The works of Mommsen and Haverfield facilitated a study of the native communities, which were no longer fully eclipsed by ‘Romans’ who supposedly carried Roman material culture with them into the provinces of the Empire. Nevertheless, the Romanisation process was in their views clearly perceived as a civilising mission directed from Rome.18

The outlook on the process became less descriptive and more explanatory from the 1970s onwards, when Romanisation came to play a central role in archaeological research.19 Directive questions were asked about the reason

17 Alföldy 2005, 26. The already varied repertoire of alternatives to or enhancements of the term Romanisation still continues to expand.
18 For an overview of and commentary on these early views of Romanisation, see Hingley 2005, 31-35.
why this process was set into action, which groups instigated it and with which intentions. Some equated Romanisation with assimilation, as opposed to resistance to the Roman Empire. Others analysed the process from the dichotomy of resisting natives and collaborating elites, influenced by post-colonialism. In general, it became widely accepted to differentiate between the practices of provincial elites and those of the remaining local population.20

The role of Romanisation within Roman archaeology became more prominent with the introduction of acculturation theory. This theory was derived from anthropological studies and was introduced into archaeological theory in the 1970s, primarily by archaeologists from Great Britain and from the Netherlands. Although acculturation theory was at that time already discarded by the anthropologists, it offered to the archaeologists a new perspective that was more focused on the local societies instead of the dominant culture of Rome. This theoretical framework permitted a more precise analysis of the specific details and personal conditions of intercultural contact. Part of the yield was that a differentiation could be made between areas of culture that were more inclined to change and others that were more likely to evade such a transformation.21

More importantly, the realisation grew that the process of acculturation was not a one-way street. The cultures Rome came into sustained contact with did not only receive, but also gave themselves cultural input. The primary constituent for the new imperial Roman culture was at the basis the culture of the metropolis Rome, and that itself consisted at that time already of a newly generated fusion of cultures incorporated in the Empire. As the Empire expanded, and with it the new culture, that new creation became more and more detached from its metropolitan origins.

Nevertheless, the non-native, Roman side of the picture remained the dominant one within the archaeologically applied acculturation theory. The native societies were still being regarded as passive and inferior. Another shortcoming of acculturation theory is that it failed to explain why and how culture was transferred. Similar points of criticism voiced in particular by processual and post-processual archaeological researchers eventually resulted in the discard of acculturation theory from archaeological science by the end of the 1970s.

II.1.b Self-Romanisation and identity formation

With the arrival of post-colonial critique in the 1980s the discussion intensified. According to Andrew Gardner, an ongoing fragmentation exists to this day.22 Despite this fragmentation two major strands can be identified within this multitude of theories and models of Romanisation, namely that of the self-Romanisation paradigm and that of the model in which Romanisation is viewed as a combination of processes of integration and identity formation.23

An important contribution to the debate has been the concept of self-Romanisation, championed by Martin Millett. Thanks to the broader post-colonial perspective, the native inhabitants of the provinces have come more and more to the fore. From the 1980s until the 1990s, the consensus was held that Romanisation in most cases actually meant self-Romanisation, with no forced

20 Woolf (2014a) presents a concise overview of the developments in this period.
21 Pelgrom 2009, 160; Woolf 2014a. Alföldy (2005, 30) and De Clercq (2009, 45) warn for the in principal limited validity of models derived from contemporary sociological and anthropological studies to societies of the ancient world, since these studies are mainly based on observations of modern day societies.
22 Gardner 2013, 2.
and consistent policy of Romanisation on the side of the Roman state. That does not mean, however, that Rome held back in welcoming those who were willing to adapt. The local elites were considered to be the main instigators of this self-Romanising process.

However, the dominant role ascribed to the elites within the self-Romanisation paradigm is also the main point of criticism directed against this model. Already in the early perspective of Mommsen and Haverfield, the elite had filled a central position in the ‘top-down’ directional flow of cultural change. In the new model of self-Romanisation, the direction of the cultural change was inverted, from ‘top-down’ to ‘bottom-up’. The native elites are in the ‘bottom-up’ view of the self-Romanisation model active agents instead of passive recipients, in contrast to Haverfield’s ‘top-down’ model. Nevertheless, the focus remained almost exclusively on the small group of members of the elite. According to the self-Romanisation view, the people of the lower social echelons experienced a more diluted version of Romanisation, by emulating those who were higher up on the social ladder (the so-called ‘trickle-down effect’). The role of the non-elite was thus still being perceived as passive and marginal.

Acknowledging an important role for identity in the appropriation of cultural elements seems to be overcoming some of the arguments uttered against the self-Romanisation paradigm. The older views usually described Romanisation as a complex totality of social and cultural transformations. With a more prominent role for the level of identity, Romanisation should now also be viewed as including transformation of identities, individual as well as collective.

David Mattingly has introduced the concept of ‘discrepant identities’ into Roman archaeological theory. The discrepant aspect must here be understood as representing the full spectrum of different experiences of and reactions to the Empire. To illustrate this, Mattingly considers individual military units and their associated civilians collectively as an example of people who seem to have maintained elements of their discrepant identities beneath the commonalities of, in this case, the general community of soldiers. This concept of discrepant identities may be compared with the multiple identities borne by Hindustani and Nepalese soldiers in the British Imperial Army, which are described and used by Van Driel-Murray as a model for the experience of the Lower Rhine tribes.

Richard Hingley uses similar terms when he writes that local societies such as the tribes living in the Lower Rhine area or in the northwestern part of Iberia, shaped their (new) identities as ‘discrepant local adaptations’. The way they adapted their identities was, according to Hingley, partly based on the resources of their respective territories and how these could support them in their ways of

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24 Woolf 2014a. The disparate duality of the relevant terms used in German and Dutch finds its basis in this. According to Spickermann (2006), the German term Romanisation is the equivalent of the English term self-Romanisation, whereas the English term Romanisation has the same meaning as the German term Romanisierung. The difference lies in the intention and stimulus for the process: the former is based on an active role by the local population, whereas the latter presumes a conscious policy directed from Rome. The same difference in meaning may be presumed for the Dutch twin concepts of romanisatie and romanisering, whereby romanisatie implies a process directed from above and romanisering a largely spontaneous but foremost dynamic process of cultural transformation. See also Alföldy 2005, 25, n. 1.
26 Woolf 2014a. See also the commentary by Van Driel-Murray 2002, 200.
27 Mattingly 2011, 206; Woolf 2014a.
29 Mattingly 2011, 213, with reference to Said’s post-colonial analysis of the concept of Empire with the use of the term ‘discrepant experience’ and to his own introductory work.
30 Mattingly 2011, 236.
living, and partly on the opportunities that arose as a result of their inclusion in
the Empire.32

In fear of an uncritical and thus inadequate application of the concept of identity
in archaeological theory Martin Pitts has issued an urgent warning: identity is
sometimes presented as a better alternative to that of Romanisation, but its use
has the same problems of ambiguity and comprehensiveness. It has the danger
of resulting in a mere search for differences between identities while neglecting
the analysis of how these came into being and developed in the wider context
of the Roman Empire. This is a shortcoming that once signalled the failure of
acculturation theory and other cultural-historical approaches within Roman
archaeology.33 In addition, Rob Collins argues that identity is a complex social
construction that is significant at all scales of social organisation. Therefore,
when identity is considered and analysed within the context of the Roman
world, it cannot simply be restricted to an exploration of only the process of
Romanisation.34 Vice versa, it does not suffice to analyse the formation and
articulation of identity to explain or understand the process of Romanisation; an
analysis of Romanisation cannot be entirely substituted by an analysis of identity.

II.1.c Romanisation in the 21st century

The last two decades, the Romanisation debate has been strongly influenced
by theories derived from two major concepts, namely post-colonialism
and globalisation theory. The core of the now prevailing understanding of
Romanisation is that it has resulted in different cultural amalgams, but that at
the same time various basic patterns are identifiable. In short: unity combined
with multiformity, with the cultural influence coming from Roman rule as
the common denominator. The basic patterns concern Empire-wide changes
on various levels – economic, cultural, intellectual and political. Part of the
multiformity is created by the different trajectories that the process contained in
the different parts of the Empire.35

These different trajectories did not run in a continuous straight line, as was
formerly believed. Rather, they were marked by sudden leaps, by which the
expansion of Roman culture made great strides in a short period of time, but
those leaps also alternated with episodes of standstill. Furthermore, the current
state of knowledge suggests that the large-scale expansion of Roman culture
in the provinces did not in each case directly follow the physical conquest of a
region; rather, it took place in all parts of the Empire at the same time. In this
way, the cultural expansion reached the recently conquered regions of Gaul and
Germany at more or less the same time as the older provinces on the Iberian
Peninsula, in Egypt or in Asia Minor. The extensive spread of Roman imperial
culture appears to have roughly coincided with the extremely expansive phase of
the Empire from the middle of the 1st century BC into the first decades of the 1st
century AD.36

A perhaps even more important current insight is that precisely in this period
the Italo-Roman culture itself underwent rapid changes. The name that has
been given to this observed process, ‘Rome’s cultural revolution’, hints at the

32 Hingley 2005, 104.
33 Pitts 2007, esp. 709-710. See also De Clercq 2009, 44.
34 Collins 2008, 45.
35 The creation of a new provincial society in Roman Gaul is used by Woolf (1998) to illustrate the
various ways of ‘becoming Roman’ that existed within the confines of the Empire.
36 Woolf 2014a.
sweeping character of the changes.\textsuperscript{37} The occurrence and timing of this so-called cultural revolution in the centre of the Empire seems to have important implications for the understanding of the process of Romanisation in the periphery. If there was such a cultural revolution in Rome, then culture in the provinces must not be regarded as an imitation of culture in the capital, for they both developed at the same time.\textsuperscript{38} However, as it took almost a century for the mentioned critiques on Romanisation to crystallise out, after much historiographical and theoretical debate, so does the idea of the Roman cultural revolution have to be scrutinised as well. Provisional points of criticism are the unclear relation of this process to political changes, the doubts about in which chronological period precisely this process took place and the limited range of material that has been used in analysis so far.\textsuperscript{39}

As an outcome of the different paths that unfolded themselves within the Empire, and not only in the periphery but also in the centre, new identities were being forged.\textsuperscript{40} It may be that multiformity and the existence of multiple, possibly even discrepant, identities have been acknowledged within the debate on Romanisation, but the why and how of this multiformity and these multiple identities, and how they were united in a political-military and economic sense for such a long time within the Roman Empire, still ask for further investigation.\textsuperscript{41}

Most recently, Miguel John Versluys has argued a case for writing a historical anthropology of the Roman world in terms of globalisation and connectivity, and with a focus on material agency.\textsuperscript{42} This is not the first time that the framework of globalisation, which originally focuses on the economy becoming worldwide, is being proposed as a suitable background for the interpretation of transformation processes within the Roman Empire.\textsuperscript{43} In response, the model has received the criticism that its central concept of globalisation is inspired by modern structures and society and has a heavy economic interpretative bias. With that character, it risks being an anachronistic application when used for a better understanding of the ancient world. This makes caution required.\textsuperscript{44}

In a separate commentary to his proposal, Versluys adds that the concept of globalisation, as advocated by him, is still mainly descriptive and not yet explanatory (enough) for the Roman world. The same goes for the ‘non-anthropocentric approach to the genesis and functioning of the Roman Empire’ suggested by him.\textsuperscript{45} In other commentaries to his proposal, it has been recommended to stop trying to define one concept or model to explain the multitude of phenomena and processes that developed within the Roman world.\textsuperscript{46}

The concept of connectivity, i.e. mutual exchange and connection, may however prove very useful for understanding the processes at work within the Roman Empire. Before we can understand how or why it happened, we first of all need to have a better understanding of what actually happened. This certainly applies to the influence of the army on the processes of cultural transformation. In this context, the framework of connectivity can focus attention on the many

\textsuperscript{37} The name was first coined by Wallace-Hadrill in his review article (1989) on P. Zanker, The Power of Images in the Age of Augustus.
\textsuperscript{38} Alföldy 2005, 39; Woolf 2001; Woolf 2014a.
\textsuperscript{39} Woolf 2001, 182.
\textsuperscript{40} Alföldy 2005, 34.
\textsuperscript{41} Pelgrom 2009, 169-170.
\textsuperscript{42} Versuys 2014a, 2014b.
\textsuperscript{43} Esp. Hingley 2005.
\textsuperscript{44} De Cléry 2009, 45 vs. Hingley 2005, 12-13.
\textsuperscript{45} Versuys 2014b, 51.
\textsuperscript{46} Esp. Stek 2014, 32, 39-40; Woolf 2014b, 47.
connections brought together by and going through the army. It may shed light on presences or relations that have gone unnoticed so far.

This process of understanding can indeed be further aided by making material culture central to the analyses, as will be done in the study at issue, but not quite in the way Versluys proposes. I am reluctant to see material culture as ‘an active agent in its relationship with people’. In my opinion, the concept of material agency implies that people can theoretically be subordinated to objects, since the agency of an object is described as ‘the way it determines its viewer, its immediate context and, consequently, its historical context’. However, I regard objects as being first of all made, used and interpreted by people, and not conversely. Without people, objects do not act, and do not have agency. In my research, the basic assumption is that certain objects are present on military sites in the Lower Rhine area, that the objects in question are the physical manifestations of connections between this and other regions in the periphery of the Empire, and that it is the army that facilitated the presence of these objects on the Lower Rhine.

II.2 Coming to terms

Several scholars have deservedly held a plea for the rehabilitation and continued use of the term Romanisation. No other term describes so concisely and briefly this phenomenon, with essential reference to the key role of Rome. Moreover, it has had – and still has – a predominant role in the development of the discipline of Roman archaeology. One may object that by just naming only one party in the process the term Romanisation has a hampering Romano-centric outlook, but Rome remains the common denominator of all the various outcomes. It is therefore important to underscore that Romanisation is to be understood as a process that resulted in not only multiformity but also uniformity, be it not overall.

Whereas pioneer Greg Woolf primarily employs the term ‘cultural change’, the more radical term ‘transformation’ instead of ‘change’ is given preference here, because the result of the process was a completely new cultural creation, which incorporated elements of both ‘parents’ but was not to be found in the same guise in the rest of the Empire. The suggestion that a single Roman culture emerged, would not do justice to the diversity and multiformity, even when considerable differences on the levels of region, class, social background, age and gender are

47 See Versluys 2014a, 17.
48 Versluys, ibidem.
49 E.g. Sloofstra 2002, 16-17; Alföldy 2005, 43; Versluys 2014a, 2014b. In addition, Alföldy (2005, 43) points out that the modern definition Romanisation is semantically strongly related to the Greek word ῥωμαίζειν. This ancient term, to be found in the works of Appianos, has multiple meanings: not only does it denote the act of speaking Latin, but it also can be used to describe ‘siding with the Romans’. See also Woolf 2014a.
50 Webster 2001, 209. For a similar fierce rejection of Romanisation, see Mattingly 2011, esp. 203.
51 To cite Le Roux (2004, 304): ‘[...] l’un des pièges les plus tenaces de l’histoire de la romanisation réside dans l’impression d’uniformisation, d’extension radical d’un système de civilisation à l’origine d’une culture commune partout présente et partagée.’
taken into account. One culture was not exchanged or substituted for another; rather, a new cultural arrangement was created under multiple influences.\textsuperscript{54}

Within this framework of transformation, an important role is played by the basic concept of acculturation. As mentioned before, the elaborated acculturation theory had been discarded within archaeology by the end of the 1970s. This discard does not go for acculturation as the basic, generic term with the meaning of (potentially) mutual adaptation to a cultural environment, in which elements of an alien culture are adopted when groups with a different cultural background are in long-term contact with each other.\textsuperscript{55} It has been acknowledged that acculturation in this meaning is an important part of the process of Romanisation. According to Alföldy, the clarification of the bilateral character of the process is one of the most valuable recent insights stemming from the debate.\textsuperscript{56}

However, not everyone shares the opinion of Alföldy. The disagreement seems to be based on a different reading of the term acculturation. Woolf, for instance, regards it as basically unilateral: ‘the acculturation of one people by another’. In his view, even the variant of two-way acculturation cannot explain the cultural changes that have been observed.\textsuperscript{57} A similar opinion is held by Jane Webster, who states that Romanisation is just another word for acculturation, and since, in her view, acculturation has in recent years acquired the common meaning of ‘the adoption of traits of another group’, the process is now generally defined as basically unilateral.\textsuperscript{58}

Acculturation is in this study, which aims to assess the composition and deployment of the Roman army, understood as a bilateral or even multilateral process. People from newly annexed territories joined the Roman army, which developed into a multicultural collection of communities. These people encountered in the army certain elements of the Roman culture with roots in the heartland of the Empire, but at the same time they had their own cultural traditions. Elements from their own culture, from the culture of fellow soldiers with a different ethno-cultural background, and from the Roman culture of the ruling class came together in a process of acculturation. This resulted in a new cultural creation, with input from multiple directions.

The input from people from newly annexed territories and from people who held on to specific cultural traditions of their own can serve as a marker for their presence in the Roman army. The objects and ideas they brought with them stand out from the more common, Roman-Mediterranean cultural elements introduced by the Roman army to a border region such as the Rhineland. It is important to realise that the culture that the local people living in border regions came into contact with what was itself already the outcome of an acculturation process, before those local people themselves took part in a similar process of cultural transformation. It will be argued in the next section that their encounter with this

\textsuperscript{53} Cf. Hingley 2005, 118.
\textsuperscript{54} An example put forward by Woolf (2001, 178) may illustrate this. In pre-Roman Gaulish religion, anthropomorphic if at all iconic representations of deities are rather exception than rule. The introduction of Roman ways of visual expression appears to have brought the Gaulish devotees to portray their own gods in a human guise. For instance, the god Sucellus visualised as a bearded man equipped with a long-handled hammer and the goddess Epona as a woman typically accompanied by horses or mules are new constructs from the Roman period, but the gods are in origin Gaulish and unknown to the Roman pantheon.
\textsuperscript{55} Cf. Sommer (2004, 158), who defines acculturation as ‘an alternation of cultural basic patterns taking place when groups with different traditions come in touch with each other’. This makes it the most general description of those processes that occur when cultures come into contact for some time.
\textsuperscript{56} Alföldy 2005, 33-35.
\textsuperscript{57} Woolf 2001, 174.
\textsuperscript{58} Webster 2001, 210.
particular version of imperial Roman culture was to a large extent facilitated by the Roman army.

II.3 The role of the soldiers

In particular the early studies, written in the 19th and first half of the 20th century, have presented the Roman army as an instrument for the diffusion of Romanisation, especially through recruitment. Some scholars hold the military men more than anyone else responsible for the development of Romanisation as such, describing them as the ‘torchbearers of civilization’. Others, by contrast, describe the soldiers as barbarians. The present consensus is that the Roman army in general was actually capable of passing on basic elements of *Romanitas* to the native population in the border regions. These basic elements encompass for instance knowledge of the Latin language, literacy, the Roman imperial cults and allegiance to imperial rule. An emphasis on ‘basic’ is pointed out by Mattingly, who states that the army constructed its culture and identity to emphasize its power, its difference and its distance from the civilians outside the military community. This resulted in a Roman but explicitly military identity. This identity is distinctive from other elements of the Roman provincial population, which had their own identities within the Roman world.

The army seems to have been a powerful factor for individual as well as collective integration. This integration was achieved through different means. First of all, the common language Latin, or at least a ‘militarised’ version of it, constituted an important binding agent. The directive Roman religious calendar had a similar binding and integrating effect. On a more organizational and structural level the integration was further facilitated through the army’s administrative system, and through the behavioural routine of the soldiers stationed at their permanent forts as well as on campaign. The army also had policing tasks: special detached-services soldiers dealt with law enforcement in the provinces. These policing duties probably had a more outward and collective effect than an individual integrative effect, since they brought the soldiers as a collective representing Roman authority in direct contact with the local people. On a more material level, integration was contributed to by the common use of money and through the food, clothing, armour and weapons the army made available for its soldiers.

Soldiers and their families will have used objects that had been (centrally) provided or facilitated by the army not necessarily in the way they were meant to. Probably, they used them above all for their own, practical and self-serving purposes. In this way, the army was more than just the transport medium or provider of Roman material culture to the local populations, for the people in the army will have appropriated and interpreted material culture in their own ways.

In evaluating the role of the army in the process of cultural transformation, it

59 Watson 1969, 143-144; cf. Davies 1974, 238. Le Bohec (1990, 247, 268, 273) summarises the divergent views that historians have proposed on the role of the soldiers in the process of Romanisation. He himself leaves the term Romanisation ill-defined. For instance, he uses the unusual expression ‘diffusion of Romanisation’ without further elaboration.

60 Alföldy 2005, 37-38. See also Speidel 2009b, 518-519, 543, but with the knowledge that he limits himself to a discussion of the legionary troops as purveyors of culture.


63 Compare for instance the use of the jug, a vessel of Mediterranean origin, for serving beer north of the Alps (Schucany 2005, 393-394), and the occurrence of mortaria with a diameter of over 40 cm, suggesting that these large bowls will have been used in a different way from most mortaria since they are too heavy to hold and employ them as mixing bowls in the kitchen (Cool 2007, 43-44).
is important to realise that the Roman army brought together a great variety of personnel and people, leading to differences at various levels.

Firstly, there existed considerable differences on the social, economic and cultural levels between the higher officers, with an elite background, and the ordinary soldiers. As men from a non-elite background, being legionary or auxiliary, the latter differed in various respects from their superiors. The elite culture in which the senior officers shared was adhered to Empire-wide by a limited group of upper-class and privileged people. Although this elite culture reached the far corners of the Empire, for instance through those senior officers serving in the army, it still was only available to a limited number of people. For the exclusive nature of the elite culture they participated in, the senior officers are not further considered within the process of cultural transformation in this study.

More important are the differences between the ordinary legionary soldiers and their counterparts in the auxiliary units. During the 1st century AD legionary soldiers were in principle Roman citizens upon recruitment, whereas auxiliary recruits were not. The legionary soldiers that served in the Roman army until the Flavian period most of the time originated from Italy, Gallia Narbonensis, Spain and Africa. The auxiliary soldiers, by contrast, were primarily recruited from newly conquered territories. The common soldiers, serving in the legions or in the auxilia, brought thus into the Roman army a wide range of cultural backgrounds, and with that a great diversity in cultural baggage. The existence of these socio-cultural differences is important to bear in mind when consulting literature on this subject, for in some studies only the role of the legionary soldiers is treated.

The idea of a community of soldiers, in which the ‘fellow-soldiers’ (commilitones) shared an awareness of common interests and identity throughout the Empire, has been put on the map by Simon James. Others have coined the expression ‘the army as a community’, with the emphasis more on the existence of multiple local groups within the army as a whole. Although these two concepts accentuate different aspects, both agree in the necessity of seeing the army not as a monolithic, static institution, but as a diverse and dynamic organisation. The very different origins of the soldiers recruited into the many army units that were stationed on the borders of the Empire appear to have contributed largely to the notable differences in the way processes of cultural transformation occur in the individual provinces.

The soldiers stationed on the borders of the Empire did not present or introduce per se only elements of Roman-Mediterranean culture to these border regions. Across large parts of the Empire soldiers encountered a spectrum of cultural practices containing a certain amount of elements originating from the heartland of the Empire, such as Latin language and literacy, typical eating and drinking habits, and particular notions on religion. But apparently this cultural set was

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64 I follow the distinction adhered to by amongst others Holder (1980, 72-108) and Southern (2007, 331-334) between senior officers of equestrian rank (legati, tribuni, praefecti) and junior officers (the so-called principales). The centurions and decurions occupy a middle-ground because they mainly appear to have been promoted from the ranks, but some were men from equestrian standing who had received a direct commission.
65 Hingley (2005, 94) even describes military identity, by which he appears to be referring to the identity shared by the common soldiers and not the higher officers, as an individual form of non-elite Roman culture, or ‘subordinate’ culture.
66 The volume edited by Von Hesberg (1999) provides a good access to this subtheme.
67 Mann 1983, 49.
68 E.g. Spiddel (2009) describes only the legionaries as a kind of ‘cultural ambassadors’.
71 Alföldy 2005, 38. See also Mattingly 2006, 167.
often manifested in regional or provincial styles that were quite alien to those of Rome and the Mediterranean heartland. Although there was certainly room for Roman-Mediterranean culture, elements of the different native cultures of the individual men who served in the Roman army and possibly also of the host culture of their present and previous stations may have been incorporated in the dynamic set of cultural elements (ideas, traditions and objects) that they brought with them.

This somewhat eclectic and distinctive cultural nature is in keeping with the definition of a so-called contact culture. Local people are often only in contact with colonial powers through a specific cultural group, known as a contact culture. Such contact cultures often represent only a selective view of the society from which they originate, or even aspects of that society existing only as ideals back home. The Roman military communities may have been such a contact culture, or rather contact cultures; other examples are missionary or settler groups. The possibility of such selective actions within the process of cultural transformation must be considered in the case of the diverse communities within the Roman army.

The auxiliary soldiers differed from the legionary soldiers in a way that influenced the transfer and transformation of culture even more. Being in principle non-citizens from newly conquered territories, they had very different cultural backgrounds, not only from the legionary soldiers but also from each other. By enlisting, they were exposed to the language, concepts, and artefacts of the Empire, as those cultural elements were used in the Roman army. Auxiliaries have therefore been described as ideally placed to drive cultural transformation, because they would make the perfect intermediaries between the centre and the periphery of the Empire. Some scholars have even recognized a deliberate ancient strategy to turn the auxiliary units into so-called enclaves of Roman culture. Accordingly, it has been argued that there was an added pressure from the side of the Roman authorities to win the auxiliary soldiers over to Roman civilisation in general, and not only to win their allegiance to the emperor as a substitute ‘warlord’. Rome would, in this view, have aimed to make them more favourably-disposed to the Roman cause, as their loyalty was fundamental to the intended success of the Empire. However, the apparent continuing practice of ethnic recruitment and continuing appointment of native men in commanding positions within ethnic units conflicts with this view.

David Cuff presents an overview of how different scholars have described and interpreted the relation between the auxiliary troops and the process of Romanisation. The differentiating view of Denis Saddington is particularly to be mentioned here. Saddington devotes notable attention to the theme of Romanisation. He has voiced criticism on anthropological borrowings and states that the derived concepts ‘Germanisation’ and ‘Africanisation’ are too far-fetched. In a more recent article, he discusses a question that is most relevant here: how Roman did auxiliaries actually become? His concluding answer runs as follows: ‘Thus in terms of legal status the early imperial [i.e. from the reign of Claudius onwards, MZ] auxiliary became a full Roman. But as far as his lifestyle and cultural milieu are concerned the choice remained his as to how much,

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72 Haynes 2013, 22.
73 Woolf 1998, 15.
74 Haynes 2013, 21-22.
75 Cf. Haynes 2013, 22.
77 Cuff 2010, 34-49.
if anything at all, he might adopt from the civilization of Rome.'\textsuperscript{79} To illustrate this Saddlington refers to graffiti with foreign, peregrine names as a continuation of the auxiliaries’ original culture, their native names being part of that.\textsuperscript{80}

In his recent comprehensive study of the Roman auxilia, Ian Haynes also offers a summary of views on the relation between the auxiliary soldiers and the concept of Romanisation. He proposes the term ‘incorporation’ as an explanatory model for the process of cultural transformation that the auxiliary soldiers and their families and dependants experienced. In his view, it is a better alternative to the concept of Romanisation. He states that, in line with recent views within the general Romanisation debate, the auxiliary soldier may be seen as more than just a servant of Rome. In his relations with others, as Haynes puts it, his own native or other local customs may have proved of greater significance than the Roman customs.\textsuperscript{81} The soldiers belonged to various groups all at once. This had its effect on their identity. It will have been constantly in flux, as their associations with groups will have shifted. For instance, an auxiliary soldier on campaign might have associated himself foremost with the army as such, but perhaps with Roman authority when performing policing tasks, and more with Roman civilization in general when making use of the bathing facilities in his spare time. When retiring with the fellow soldiers with whom he shared his food and lodging, and who may have had the same ethnic background, he could very well have associated himself primarily with their shared cultural traditions.

The army service is said to have profoundly transformed the cultural identity and self-representation of auxiliary soldiers.\textsuperscript{82} In the cosmopolitan mixture of the Roman army as a whole, the Roman-Mediterranean cultural elements may at times have been the only common point of reference, for instance between soldiers of different (ethnic) units or between soldiers with different backgrounds within the same unit.\textsuperscript{83} However, it remains to be seen how much this holds for individual auxiliary units during the 1st century AD. Certainly shortly after they had been levied, the soldiers forming these units shared a common ethnic and cultural background.\textsuperscript{84} Nevertheless, the extent to which auxiliary soldiers were then exposed to Roman-Mediterranean aspects of Roman culture was still great enough to call those soldiers ‘Romanised’.\textsuperscript{85}

As time progressed, the composition and ratio of the various cultural components of this cosmopolitan mixture changed. The remarkable so-called ‘de-Italianized’ soldiers known from the 3rd century AD are considered proof of a cultural transformation within the Roman army in which the influence

\textsuperscript{79} Saddlington 2009a, 1023.
\textsuperscript{80} Saddlington 2009a, 1023. On closer inspection, the Aramaic names from Gelduba which Saddlington refers to in particular, do probably not belong to soldiers but rather to merchants from Northern Syria. This is mainly substantiated by the fact that the graffiti were written in Aramaic and not in Latin or Greek, which would have been better understandable for fellow soldiers and other people connected with the Roman army. In addition, all three graffiti have been found outside the walls of the fort; one is a stray find, the second has been found in the context of a grave and the last one among the remains of the harbour. It is further argued that the graffiti belonged to civilians rather than soldiers because two of the three were not put on undecorated plates and cups, on which graffiti usually are found in military context, but on a decorated terra sigillata bowl Dragendorff 37 and a terra sigillata mortar Dragendorff 45. The three vessels that carry the graffiti cover a date range from about AD 100 to the middle of the 3rd century AD. Since there are other archaeological indications for trading contacts with the East, it is more likely that the graffiti belong to Syrian merchants rather than to Syrian soldiers. See Reichmann 2001, 490-491 and Reichmann 2013, with further references.
\textsuperscript{81} Haynes 2013, 21-23. See also Haynes 2013, 5, n. 18, where the author claims a place for the people from the auxiliary military communities alongside the other neglected groups that now may receive scholarly attention thanks to the post-colonial tradition.
\textsuperscript{82} Cf. Haynes 1999, summarised by Roymans 2011, 156.
\textsuperscript{83} Haynes 1999b, 166.
\textsuperscript{84} See section IV.5.b for a more in-depth discussion of the phenomenon of ethnic recruitment.
\textsuperscript{85} Haynes 1999b, 173.
of the Mediterranean core became subordinated to that of the provinces.\textsuperscript{86} Webster even talks of a steady flow of barbarians into the army, ‘diluting the Roman way of life’.\textsuperscript{87} But the process that resulted in this outcome started already at the beginning, when the first auxiliary soldiers were incorporated into the dynamic organisation of the Roman army. Cultural influences through adherence to native, non-local cultural elements and introducing them into the broad and composite community of the army can already be perceived in the 1st century AD. Examples of this phenomenon from the Lower Rhine area will be presented in this study. Similar to other regions of the Empire, this area knew not one singular, uniform path but various trajectories of cultural transformation. These trajectories had their own peculiarities but at the same time shared some basic patterns. For a better understanding and positioning of the foreign but non-Mediterranean elements in this process and serving as a reference, a short overview of the study of cultural transformation in the Lower Rhine area will be given in the next section. The aspects that are particularly relevant for the research at issue will be highlighted.

\textbf{II.4 Cultural transformation in the Lower Rhine area}

Although a border territory, the Lower Rhine region was not a remote and isolated area, if only because of the frequent displacement of troops. The region thus knew much human exchange. The influence of the soldiers on the processes of cultural transformation that developed in this borderland must have been considerable, not in the least because the army was the main Roman presence in this area.\textsuperscript{88} In addition, the Lower Rhine area was only late embraced by cultural influences from the Mediterranean, compared to other parts of the northwestern provinces. This is partly due to the large-scale displacements of tribal communities from which the area suffered in the aftermath of the Gallic Wars. In the other, predominantly Gaulish parts of the northwestern provinces, a continuity of the population and an already early started socio-cultural development would have paved the way, more or less, for Romanisation. It has been argued that on the Lower Rhine Romanisation might have met its limits. From this viewpoint, the processes of cultural transformation in this region may be considered as an exceptional case of Romanisation within the northwestern provinces.\textsuperscript{89}

Caty Schucany even states that the population of Germania inferior experienced mainly a particular Gallic conversion of the Mediterranean culture of Rome.\textsuperscript{90} This can be attributed, according to Schucany, to the Gallic origin of large parts of the city populations, of many of the legionary soldiers as well as of most of the auxiliary units stationed in the Lower Rhine area.\textsuperscript{91} Although this may be largely true for the city populations and the legionary soldiers, the current knowledge does not allow such a statement for the auxiliary units. As far as the

\begin{itemize}
\item \textsuperscript{86} James 1999, 21-23.
\item \textsuperscript{87} Webster 1998, 285.
\item \textsuperscript{88} Bechert (2007, 41) estimates a military presence of circa 40,000 men on the Lower Rhine limes during the reign of Tiberius, not counting the army train and relatives of the military personnel.
\item \textsuperscript{89} Alfoldy (1968, 141) arrives at a somewhat higher number of circa 42,000 soldiers, of whom around 22,000 were legionaries. In both cases, fleet soldiers appear not to be included.
\item \textsuperscript{90} Schucany 2007, 34-36.
\item \textsuperscript{91} Schucany (2007, 35) would therefore rather describe the process as Gallo-Romanisation instead of plain Romanisation.
\end{itemize}
names of the auxiliary units stationed on the Lower Rhine during the 1st century are now known, only a minority of these units was Gallic in origin.

One group of people that had moved into the Lower Rhine area after the Gallic Wars has acquired a notable reputation in the literary sources for its connection with the army: the Batavians. The Batavians or Batavi appear to have been a Germanic breakaway group from the Chatti, originating from modern-day Hessia across the river Rhine. They were relocated to the Lower Rhine area under supervision of Roman authorities probably by 19 BC.\textsuperscript{92} They have received much scholarly attention, not in the least with regard to their Romanisation process. From the Augustan period onwards Roman objects have entered their rural communities. Whether Roman ideas and concepts accompanied these physical objects, is difficult to ascertain. The Roman objects probably reached the Batavian communities through two main channels. The first seems to have started earlier than the second and went through the hands and initiatives of the local elites by the mechanism of regional client networks. The second channel was constituted by the Roman army: not only were units stationed in the area the Batavians were living in, but also the Batavians themselves were one of the major suppliers of auxiliary manpower. The elite may have taken the lead in adopting Roman cultural elements, through exchanges within their regional networks as well as through their own postings within the Roman army. But one may imagine that soldiers on leave and veterans returning home will have passed on their knowledge and experiences to the rest of the population.\textsuperscript{93}

In studies conducted in recent years, the image is put forward of the Batavian auxiliary veterans being important mediators between native and Roman-Mediterranean culture, as a kind of cultural ambassadors.\textsuperscript{94} Stijn Heeren states that Batavian veterans had acquired a Roman taste, literally and figuratively, during their service in the Roman army. On their return to their home communities they appear to have introduced elements of Roman-Mediterranean cultural repertoire into their native society. Analysis of the material culture from the rural Roman-period settlement at Tiel-Passewaaij shows, as argued by Heeren, that Roman ways of dining and choices of foodstuff, styles of dress and personal hygiene, knowledge of the Latin language and of the Roman economy had already reached rural Batavian communities early in the Roman period.\textsuperscript{95}

The presence of objects from the Roman-Mediterranean cultural repertoire does not automatically imply that people used them in the same way. However, at Tiel-Passewaaij complete services of terra sigillata tableware have been deposited in graves in the same combinations as they would have been used at the table in a Roman-Mediterranean cultural setting. This suggests that in addition to the objects also corresponding new ways of eating and drinking had been introduced.\textsuperscript{96} But, on closer consideration, the depositing of complete services of tableware in graves is a tradition unknown in Roman Italy. Considering the different pieces together as a set is certainly a Roman-Mediterranean idea, but depositing the whole service in a grave is not. It probably is a local or regional adaptation of the use of material culture in funerary ritual.\textsuperscript{97} Thus, so far it has not been confirmed that the Batavian veterans, let alone other members of their communities, have used the said

\textsuperscript{92} Polak & Kooistra 2013, 391.
\textsuperscript{93} Slofstra 2002, 29-30.
\textsuperscript{94} E.g. Roymans 2011, 140.
\textsuperscript{95} Heeren 2009, esp. 165-166, 252-256, 308.
\textsuperscript{97} Koster 2013, 236, 238, 242-244; Hupperetz & Derks 2014, 44. Schucany (2007, 36) suggests that this change in funerary ritual in the Lower Rhine area may signal the arrival of people from Gaul.
objects in their settlements and cemeteries in the same way as the people living in the region that had brought forth these objects.

It has been concluded that the Batavian veterans exhibited their own form of Romanisation by developing their own specific interpretation of Roman culture and mediating this to different social groups. This form is said to have been motivated by practical considerations rather than by the wish to participate in the shared culture of the Roman world. They may have consciously disseminated Roman military material culture, which is archaeologically attested, to state that they adhered to a Roman identity, to a certain extent, but they may as well have used it to express their identity as soldiers. Roman military material culture might even have functioned in the fashioning of local, tribal identity. This seems to have been stimulated by the warlike nature of many of the communities that were forced to provide soldiers for the Roman auxiliary units. Romanisation as experienced by auxiliary soldiers may be seen as a process by which existing cultural and martial traditions of native tribes are broken up by Roman conquest and are subsequently redefined by analogous traditions practiced by the Roman army.

The question remains whether the form of Romanisation displayed by the Batavian veterans was shaped by their specific interpretation of Roman culture or rather by its availability. If it stemmed from their own interpretation, it may be asked whether this interpretation itself was based on ideological considerations and aspirations. The Batavians certainly did not adopt all of the Roman-Mediterranean cultural elements. For instance, the basis of the traditional native byre house remained unchanged in the rural settlements in Batavian territory, as well as the essence of the funerary rituals. Stone built villa complexes in which people and cattle did no longer live under one roof and large stone grave monuments, to name but a few of the said Roman cultural elements, are rare in the archaeological archive of the Batavian region, but this may as much be explained by a limited offer or availability of Roman-Mediterranean cultural repertoire as by a reluctance on the part of the Batavians.

Although the case of the Batavians cannot be easily extrapolated to other regions or even communities in the Rhineland, it has brought forward two possible scenarios that may be important for the research at issue. Firstly, the men and women of the military communities might have had some freedom of choice in acquiring and appropriating goods and ideas, which may have been guided by practical as well as ideological considerations. Secondly, the cultural elements they could choose from seem to have constituted a specific set which was brought together by the military constellation they were part of. This cultural set was not fully Roman in two senses: it contained not all the Roman-Mediterranean objects and ideas, and at the same time it hosted elements of other

98  Derks & Roymans 2006, 133.
99  Roymans 2011, 156. In Roymans’s view, especially the veterans’ wives will have contributed to the Romanisation of the rural communities, because they would have become accustomed to Roman army culture ‘in a broader sense’ during their stay in the camp villages. It is however the presence of their male relatives in the army camp that brought and kept them there, and it is through them they had access to Roman material culture. Therefore, it is questionable whether the women had a broader experience with Roman army culture than the men. Furthermore, Van Driel-Murray (2009) has brought attention to the conservative influence of female relatives living in the camp villages on certain selected aspects of material culture, specifically in the domestic sphere. This conflicts with Roymans’s statement.
100  Cuff 2010, 48-49.
101  Heeren 2009, 165-166.
102  The possibility must also be taken into account that stone was re-used in later times, resulting in a dearth of this material in the archaeological record pertaining to the Roman period.
cultures, namely those of the incorporated soldiers and their relatives and those of the areas where they were or had been stationed.

Nico Roymans presents the view that the way the rural Batavian communities ‘became Roman’ was a ‘discrepant’ military way, which did not guarantee a successful integration into the mainstream, civilian version of Roman culture.\(^\text{103}\)

It has been argued that in the case of the Batavians, imperial power in some ways even hindered a potential transition of local, native culture into that of metropolitan Rome. Since Rome demanded a great amount of manpower from the Batavians, their military service might have had far-reaching effects on the way the Batavian communities provided for themselves, for it has been assumed that the lands the Batavians worked and lived on suffered from agricultural marginality. If that were the case, then the intense military service in combination with the supposed agricultural marginality could have had very serious implications for the Batavians and their society. It has even been concluded that the Batavians were not able to achieve stable economic prosperity within the Roman world.\(^\text{104}\)

However, recent studies of the sustainability of rural communities in the Dutch River Area, among which the Batavian, ask for a reconsideration of this reconstruction. The outcome of these studies tells us that rural communities in the so-called non-villa landscape of the Dutch River Area were after all capable of producing a surplus of animals as well as cereals.\(^\text{105}\) The carrying capacity of the landscape was larger than hitherto assumed. The landscape was not limiting at first, but gradually the pressure on the landscape increased due to a growing population. The upper limits of production possibilities set by the landscape may have been reached in the 2nd century AD.\(^\text{106}\) Nevertheless, it can now be argued that the Batavian communities probably did not suffer from agricultural marginality, at least not from the onset of their incorporation into the Empire. They might even have prospered in this respect. One of the factors held accountable for the ‘discrepant’ Batavian trajectory of Romanisation is thus better to be dropped. This leaves, for now, the strong military tradition that the Batavians have been associated with as the main determinant.

It may subsequently be asked how, or even whether, the pressure of army recruitment hindered cultural transformation among the Batavians. For service in the Roman army might even have promoted contact with and access to Roman culture, facilitating rather than hindering cultural transformation. Further, other tribal groups within the Roman Empire appear to have been as intensely exploited for military manpower as the Batavians. The situation of the Batavians does not have to be unique, although the literary sources give the impression it was. Their home territory being a remote area, on the periphery of the Empire, and high rates of service in the Roman army are conditions that also apply to, for example, the Thracians and the Syrians. But written accounts on those groups that are similar to the writings of Tacitus about the Batavians have not been preserved. We must take into account that this distorts our view.

II.5 Conclusion

Similar to the specific path followed by the Batavian communities, there are different trajectories of cultural transformation recognisable within the Empire.\(^\text{107}\)

\(^\text{103}\) Roymans 2011, 157.
\(^\text{104}\) Haynes 2013, 113.
\(^\text{106}\) Van Dinter et al. 2014.
As far as they are not recognized yet, they are to be expected across the whole of the Empire. In my opinion, these trajectories may be brought together under the heading of Romanisation, because they were connected by shared cultural elements that originated from the heartland of the Empire.

Romanisation was a bilateral and at the same time largely spontaneous process of acculturation that entailed social, political and cultural transformations, whereby the use of the more radical term transformation, instead of change, is intentional. The process of Romanisation resulted in the birth of a new cultural universe under Rome’s rule.108

The Roman army, especially its diverse contingents of auxiliaries, contributed to this in a way that was more differentiated than is generally presumed. In the past, the view has been put forward that auxiliary soldiers were instruments of Romanisation. But this is an oversimplification, for the soldiers were not only members of the Roman army, they also maintained associations with various other groups (based on ethnicity, family, age, gender, etc.). Their dynamic identities resulted in a composite influence on the cultural transformation that developed in border regions such as the Lower Rhine area. This composite influence has a material residue in the objects that arrived in the area through the Roman army. The outliers among these objects may serve as markers for the presence of foreign soldiers in the army units deployed in the Lower Rhine area.

108 Alföldy 2005, 43.
III Mobility

III.1 Mobility in archaeology

Mobility lies at the foundation of the developments and changes that were set in motion in the Lower Rhine area with the arrival of the Roman armed forces. It has received attention from archaeological scholars, even from as early as the 19th century, but with markedly varying points of interest and depths — as well as success. A concise overview of the research history will be presented here, followed by a discussion of recent developments and models relevant to this study. First, some definitions will be introduced, for only clearly defined terms and notions permit a fruitful exchange of thoughts and ideas.

III.1.a Definitions

Objects and ideas move with people. Consequently, human mobility is a factor in cultural transformation. It is of fundamental importance to the research field of archaeology. However, on closer inspection the concept of mobility is rarely acknowledged for occupying this central position in archaeological research. This is partly caused by the many differing definitions, and by how firmly these definitions are embedded in the theories and interpretations in use by archaeologists. For example, mobility has traditionally been considered as synonymous with movement. Migration, in its turn, has as a term not only taken on a pejorative connotation, it also covers only part of the dynamic, fluid spectrum of human mobility.

The sometimes inarticulate relation between the concepts of mobility and migration can unnecessarily complicate matters. Susanne Hakenbeck advocates the adoption of the term ‘mobility’ instead of the widely used ‘migration’. She regards mobility as an encompassing and more open concept, which allows for a more differentiated approach of displacement than merely the movement of ethnic groups or demographic expansion, commonly known as ‘migration’. She refrains, however, from clearly stating that migration is a mode of movement, and that movement itself is the physical result of the capacity of being mobile (i.e. mobility). Still, I am very much inclined to follow her lead and use ‘mobility’ as a more general term and on another level than ‘migration’.

I consider the concept of migration as a mode of movement. This fits in with Paul Erdkamp’s view on mobility and migration, who argues that the various types of mobility should be seen as a spectrum, with travel on the one end and migration, involving permanent relocation, on the other. If mobility is divided into categories, this is being done in order to analyse and understand it. It must be remembered that in reality these clearly distinguished categories are absent.

109 Note that there are two concepts of mobility, horizontal and vertical. Horizontal or spatial mobility corresponds to geographical movement. The counterpart of horizontal mobility is vertical or social mobility, which describes movement up and down the social ladder.
110 Preston & Schörle 2013, 1.
111 Hakenbeck 2008, 19.
112 In their overview Tütken, Knipper & Alt (2008, 3) present a conflicting interpretation. They argue that recent archaeological studies on mobility rest on three cornerstones: locality, mobility and migration. Locality represents in their view the non-movement of local, sedentary individuals. Mobility is the movement of individuals across short or longer distances with different destinations, but with the intention to return to the point of departure. Migration entails movements across long distances with the intention to stay and settle at the destination. Mobility is here positioned next to migration, and has a rather specific curtailed definition.
113 Erdkamp 2008, 418, 420, 424. See also Killgrove 2010, 12.
Therefore, I choose to use the term mobility where others are inclined to use the term migration. In this study, mobility is the condition of being able to move. Movement is the positive action resulting from this ability.

III.1.b A historiographical outline

Movement and mobility have been part of archaeological studies since the formative years of the discipline, but rather in an explanatory way than as research subjects on their own merits. In the early 20th century, migration and diffusion – both modes of movement – were much in use for explanation of cultural change, with the best known exponents being the Swedish scholar Oscar Montelius, the German linguist and archaeologist Gustaf Kossinna and the Australian archaeologist and political theorist Vere Gordon Childe. In those early years of archaeological research, many adhered to the idea that the spread of culture was facilitated by the mobility of people who carried culture with them. It was not until the late 1980s that Colin Renfrew demonstrated that movement itself is a complex process, made up by innumerable factors that shift and move at different rates and scales.

Since the early 1990s applied sciences within the archaeological field have allowed for a new direction in the study of what is explicitly called mobilities, in the plural, instead of the singular mobility. Bioarchaeological methods in which physical anthropological data – namely stable isotope data, osteological data and mitochondrial DNA data – is analysed, enable us to highlight the variable nature of mobility and direct attention to the level of individuals instead of groups. They provide for a so-called ‘bottom up’ evidence-driven approach. In these methods the evidence is leading the way, not the models. With the particular (individual) as point of departure the general (group or pattern) can be inferred, but with the acknowledgement that the applied bioarchaeological methods are just a part of the advocated multi-disciplinary approach. These methods have their own strengths and weaknesses.

Several case studies have shown their potential, albeit in combination with the traditional, cultural-historical approach. Noteworthy examples are the studies of the Late Roman cemeteries at Lankhills near Winchester and at Brougham in Cumbria.

While the subcategory of migration underwent a revival within the realm of the social sciences, it also revived within archaeology in the 1990s, after having been neglected for decades. This was due to past diffusionist and functionalist studies in which the complex social process of migration had been oversimplified. However, the revival was not an instant overall success. Heinrich Härke has drawn attention to the different attitudes of British and German archaeologists towards the concept of migration. He identified an unremitting, strong conventional migrationist undercurrent in the German tradition, whereas the

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114 The sociological paradigm ‘mobilities’, or ‘new mobilities’ in its revised and advanced form, explores not only the movement of people, but of ideas and things as well. Moreover, it also investigates the broader social implications of their mobility. Its plural form emphasises its distinguishing feature of multi-formity. Cf. Beaudry & Parno 2013, 4.
117 Cool (2010, 36, 41-42) gives warning that she and her colleagues only successfully identified an immigrant community at the funerary site of Brougham because all of the patterns in material culture, epigraphy and burial practice came together and because they could interpret them against the known broader patterns of life and death in the 3rd century AD in this area.
118 Killgrove 2010, 42.
views of British archaeologists had undergone much more changes, relating to political, social and intellectual context.\textsuperscript{119}

\textbf{III.1.c Recent developments and models}

Although with different pace and success, new concepts derived from developments in anthropological migration (sic) theory continue to find their way into the archaeological discipline. Transnationalism is currently one of the most influential. Although sometimes explained as just the strong emotional connection that is maintained by emigrants with their homeland, it is better to define transnationalism more encompassing as a social process in which migrants are active in social fields that transgress boundaries of geographic, political and cultural nature.

Transnationalism theory developed in the 1990s into the prominent critique of both modernisation and dependency theory within anthropology. Modernisation theory had played a dominant part until the 1970s. Fundamental to this theory is a world view based on dichotomies, which can basically be reduced to ‘us versus them’. The critique is that these dichotomies do not mirror reality. Moreover, compulsory migrants are not considered within modernisation theory. This leaves a very important aspect of migration out of view. As an alternative dependency theory arose in the 1960s and 1970s. This strand of thinking is also known as the historical-structuralist approach. It envisions interdependent systems of core and periphery. This theory too has been criticised. As a so-called macrotheory of migration it hinders research on a lower local level and makes it difficult to understand the relation between the migrants and their homeland. Recently, the above-mentioned theory of transnationalism has been put forward to resolve the mentioned shortcomings of modernisation and dependency theory.\textsuperscript{120}

Transnationalism offers several models and concepts that can be applied to the Roman world and to the Roman army in particular. A concept that resides under transnationalism and that has become particularly prominent in archaeology is diaspora theory. Some use the terms diaspora and migration as synonyms. There is, however, a difference in meaning between the two terms: a migration can result in a diaspora, if the migrant community does not assimilate, willingly or unwillingly. However, not every migration will eventually result in a diaspora. The two terms are not interchangeable.

According to the common definition the word ‘diaspora’ denotes the dispersal and scattering of people who have left their place(s) of origin – forced or voluntary – but have maintained ties with their homeland, if not physically than at least in mind. It has been suggested that when strong ties to the past are recognized within a community or when a community has difficulty with or fails in assimilating, a diaspora has risen. From this viewpoint a diaspora could be identified by expressions of deliberate isolation and resistance to cultural conformity.\textsuperscript{121}

Recently, several studies on mobility in the Roman world have been carried out as part of the multi-disciplinary research programme \textit{Diasporas in the Roman world}. The contributors treat diaspora theory as an additional model of

\textsuperscript{119} Härke 1998.
\textsuperscript{120} See Killgrove (2010, 40-42) for an overview of these influences from anthropological theory.
\textsuperscript{121} Cf. Eckardt et al. 2010, esp. 99, 107; Ivleva 2012, 14-15, 25-26. Contra Purcell 2005, who uses the notion of diaspora to describe the fanning out of people from the Italic heartland to all corners of the Empire. Diaspora must not, in his view, be interpreted as a plain colonial or a truly ethnic phenomenon. Fundamental to the coherence of the people in this ‘Roman diaspora’ is, according to Purcell, the wealth of relationships which tied those individuals and groups across the world to the centre.
The term diaspora has in the past particularly been used for the forced movement of ethnic groups from their homeland, but recently the term has been redefined to be more metaphorical and more inclusive. Following the definition put forward by Ian Lilley, Hella Eckardt characterises diaspora communities by an initial dispersal, either forced or voluntary, a distinction from the host society, and a continuous social or spiritual link to the homeland.

In the view of Eckardt et al. diaspora theory is particularly appropriate for the Roman world with its high levels of mobility and interaction. It allows for a focus on interactions between migrants and host communities as well as for a consideration of very different groups of migrants, forced and voluntary alike. In other words, they consider the Roman world as an outstanding example of a society in which diasporas develop, exist and are maintained.

With regard to the context of the Roman army, criticism on the use of the concept of diaspora has been voiced by Carol van Driel-Murray. She conceives the term diaspora as too emotionally charged and of a one-way character, because a return to the yearned-for homeland would be counter-diasporic. In reality, however, a return to the homeland was a real possibility for many a Roman soldier. Diaspora is therefore not the best description of the experience of the Roman military, according to Van Driel-Murray. She prefers to use the more neutral term of mobility instead of diaspora.

It all depends on the definition of diaspora and on the conditions that are used to label a group of migrants as a ‘diasporic community’. John Pearce as well as Eckardt et al. describe different kinds of diasporic communities, following the outline of the social scientist Robin Cohen. In fact, one of the characteristics of a diaspora listed by Cohen is the frequent development of a return movement, precisely that what Van Driel-Murray considered as a shortcoming of the term diaspora as she defines it. It turns out, however, that not every identified diaspora meets all the conditions listed by Cohen. The contributors to the Roman diasporas project signal in fact the danger of stretching the term too widely, but they still underline the helpfulness of the concept. They utter the hope that their project will contribute to a more thorough understanding of the complex nature of the Roman Empire: ‘Diaspora theory may open our eyes to the subtle interactions between immigrants and host communities, and the way in which people actively choose to stress certain aspects of their identity – for example, their military over their ethnic identity, or their status as freedmen over their origin’. Issues that are deemed sensitive in modern society, like race and origin, might have played a much less important role than now sometimes is presumed. Instead, other aspects of identity, like age or gender, appear to have been more determining in certain situations or at certain moments than may be expected from today’s point of view.

An alternative but related model is presented by the ancient historian Claudia Moatti. She has put forward the concept of cosmopolitisation, coined by

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122 The project resulted in a collection of papers edited by Hella Eckardt and published in 2010 under the title *Roman Diasporas: Archaeological approaches to mobility and diversity in the Roman Empire* (Journal of Roman Archaeology Supplementary Series, 78).
123 Killgrove 2010, 42, with emphasis on the neglect of forced movement in much (recent) studies of diaspora.
126 Van Driel-Murray 2012, 117. See also n. 113. Van Driel-Murray’s definition and use of the terms diaspora and mobility is different from mine. Since a diaspora is the result of migration and migration is in my terminology a subcategory of mobility, I consider diaspora explicitly as a specific type of mobility. It therefore comes, in my view, under the umbrella term of mobility.
128 Eckardt et al. 2010, 125.
the sociologist Ulrich Beck. This model may be categorised as part of transnationalism theory as well, having the transgressing of boundaries at its core, but it is not explicitly presented as such by Moatti. In short, cosmopolitisation defines the sociological process in which boundaries become blurred and people are involuntarily confronted with alien others, bringing ‘the interdependence and inextricable connection between global regions beneath the surface of nation-states into our field of vision’, thus formulated by Beck. He also states that the erosion of boundaries becomes apparent when the ‘inner identity and political loyalty’ of a growing number of people no longer refer to one country or one homeland, but to two or three, or even more, at the same time.130

Moatti has observed this phenomenon in her study of human mobility in the Roman Empire. She regards it as existing separately from processes of cultural transformation. By her definition cosmopolitisation is a form of identity driven by mobility and based on an accumulation of so-called memberships of civic, ethnic and cultural categories and groups, but with the person in question at the same time still maintaining a strong link to the homeland.131 According to the cosmopolitisation model, however, the migrants who underwent this experience did not try to make these memberships coherent.132 In other words: they would have had multiple, possibly even conflicting identities. With their different contacts and memberships they would have belonged to a network generated by their mobility. Networks like these were part of the success of the Roman Empire, according to Moatti.133

The concept of cosmopolitisation seems to fit the experiences of especially auxiliary soldiers and their relatives who moved through the Empire, accumulating memberships. After all, a typical auxiliary soldier was born into an ethnic community living on the edge of the Empire, became a member of the Roman army, then became a member of a specific military unit, came into contact with local cultures in the peripheral areas he was stationed in, became a Roman citizen after discharge and returned home or settled in the area where he had been stationed for some time. However, it may be questioned how one can state with certainty whether those auxiliary soldiers did not try to make their so-called memberships of different networks coherent, and whether they did indeed have multiple, even conflicting identities.

III.2 Mobility in the Roman world

Mobility – and especially its subcategory migration – was extremely important to the Roman world. Mediterranean history is not fully understandable without taking into account the occurrence and implications of migration. It must have been a truly considerable phenomenon. With regard to the Roman world, Moatti states that it can easily be shown that migration – in general – increased greatly from the end of the Republic and the beginning of the Principate.134 Mobility in general is even being considered ‘a hallmark of Romanness’.135 Despite its importance mobility as a research theme has not received equal attention in

130  Beck 2012, 642-645. See also Beck 2010, 68.
131  Moatti 2013, 2637.
132  This is in keeping with Mattingly’s theory of discrepant identities. See Mattingly 2011, 204-245.
133  Moatti 2013, 2637.
134  ‘[…] chiefly because of peace’, according to Moatti (2006, 117), but that explanation is very much debatable. After all, many wars were still being fought on the frontiers during the Principate, and the Civil War of AD 68-69 alone is enough proof of continuing internal conflict instead of peace.
135  Killgrove 2010, 33. See also Laurence (1999, 136), who states that Roman culture carried ‘an emphasis on mobility’.
studies on the Roman world. Some aspects have been overlooked or neglected, as I will argue in the following overview.

III.2.a Studies of mobility in the ancient world

Opinions differ on the quantity of research done on mobility in the ancient world; this difference can be explained by the relative character of quantity in this context. Erdkamp, for instance, summarises his survey of research on mobility and migration in antiquity by saying that few studies have been published on this topic.\(^{136}\) Moatti, on the contrary, states that human mobility in Roman society actually has often been studied. According to her, this was chiefly done from three points of view: firstly, the development of travel and commerce, made safer by the Principate;\(^{137}\) secondly, the cosmopolitan character of the cities; and thirdly, the causes of migration, such as scarcity of material or human resources.\(^{138}\) Andreas Kakoschke also presents an overview of studies of mobility in the Roman world. He argues that the study of mobility is a relatively young discipline within the field of ancient history. He continues with an observation that also appears in Lothar Wierschowski’s work: although there are fundamental studies on travel in general and on infrastructure and road networks in more detail, these studies almost all concentrate on the privileged group of people that had the opportunity to undertake travels for recreational and educational purposes. These were also the people that would have the means to erect monumental inscriptions by which they and consequently their movements were remembered. Also well studied, according to Kakoschke, are the movements of state officials and of officers in the army, besides those of the emperors. The mobility of civilians belonging to the lower echelons of society has, by contrast, been neglected for a long time, because of the persistent overestimation of the extent of immobility for the non-elite in the ancient world.\(^{139}\)

For the Roman world the perspective has been broadened by studies carried out on mobility with regard to individual areas and cities of the Empire.\(^{140}\) The studies by Wierschowski on mobility in Gaul, which in his view was principally instigated by economic motives, and by Kakoschke on inward mobility of non-local civilians in the two German provinces and additionally on the outward mobility of people from the German provinces, belong to the most recent and the most comprehensive on the subject. Moatti is one of the ancient historians who have taken the study of mobility and migration in the Roman world to another, more theoretical level. She regards migration as one of the most important facets of the broad concept of movement. According to Moatti, movement transforms identities, and therefore migration changed the definition of identity and social control in the Roman world. The implications of movement have in her view a double aspect, both pragmatic (in all fields – administrative, legal, political) and formal (influencing forms of thinking and organizing, even thought itself). In this way, the history of movement becomes part of intellectual history.\(^{141}\)

III.2.b Archaeological studies of mobility in the Roman world

Zooming in on the discipline of archaeology, most archaeological studies of mobility in recent years have focused mainly on prehistoric and late or post-
Roman occurrences of large-scale migration. Not just the Roman world, but the ancient world in general constitutes only a small part of the total collection of archaeological studies on mobility and migration.\textsuperscript{142} Yet, a growing interest in specifically the phenomenon of migration and its fundamental characteristics has been noted among not only Mediterranean but also Roman archaeologists. This rise has been developing since the 1990s, and the interest manifests itself especially as a component of demographical studies.\textsuperscript{143} As different kinds of bias occur in studies of Roman archaeologists, I would like to bring several issues to attention.

Firstly, there is a strong focus on the Mediterranean heartland. This preoccupation with the Mediterranean is obvious, as the most eloquent sources of the ancient world are from this area. But using predominantly the readily available Mediterranean sources renders the resulting studies geographically biased. This bias is unnecessary, since the whole of sources available to us is far from exclusively Mediterranean in origin.

Secondly, the sources used to extract information and data for analysis are limited by nature, since they predominantly consist of one type of source category, namely epigraphy. Some scholars have indeed turned their attention to areas outside the Mediterranean, to overcome the first issue, but in almost all of these studies the limiting factor is that (formal) epigraphy is the only consulted source. In most cases this leaves lower, less wealthy echelons of society and people that were not (yet) accustomed to the epigraphical habit out of view, although Mark Handley has shown that at least for the Latin West in Late Antiquity the non-elites, women and children can be found as well in the epigraphical record if one applies the right questions and attention.\textsuperscript{144} Still, Kakoschke estimates that less than one percent of the Rhineland population in Roman times is known through inscriptions.\textsuperscript{145} The representativeness of the epigraphical record for the Rhineland, the area to which my research geographically is confined, must therefore be considered as very low.

Thirdly, even in those recent studies on mobility, the army has received little in-depth and elaborate attention. Admittedly, Pearce states that the themes of movement and mobility in a Roman context, above all in relation to the deployment of the legions and recruitment into and retirement from the army, have never really lost the interest of scholars.\textsuperscript{146} Illustrative examples are the careers of Roman officers that have literally been mapped in many a prosopographical study.\textsuperscript{147} Common soldiers, however, did not leave enough inscriptions behind to receive the same attention, though these soldiers generously outnumber the officers. The subject of army mobility on a more in-depth, comprehensive level has thus been neglected, especially the implications of this intensive mobility. The reasons seem to be the forced nature of movements and probably also the perception that the subject has received enough attention in the early days of the discipline. Indicative is the choice of Kakoschke to exclude military personnel from his investigations on the basis of the involuntary nature of their mobility – ‘da sie ihren Stationierungsort nicht selbst auswählen’.\textsuperscript{148} Although Kakoschke from the start voiced his doubts about the possibility of separating civilian from military in the inscriptions, he

\begin{itemize}
  \item \textsuperscript{142} Erdkamp 2008, 417; Eckardt et al. 2010, 99.
  \item \textsuperscript{143} Pearce 2010, 80.
  \item \textsuperscript{144} He even argues that inscriptions are a body of evidence that is not being fully utilized. Handley 2011.
  \item \textsuperscript{145} Kakoschke 2002, 26-27.
  \item \textsuperscript{146} Pearce 2010, 79.
  \item \textsuperscript{147} A combination of a prosopographical and a historical approach was applied by Malone (2006) in his study of legio XX Valeria Victrix.
  \item \textsuperscript{148} Kakoschke 2002, 4.
\end{itemize}
maintained the exclusion of soldiers, veterans and other men directly related to the Roman army. The difficulty of separating the two categories may illustrate the far-reaching effect of the army on local culture, which I want to bring into the limelight.

In addition to handling these issues of bias, it is important to move beyond the more descriptive and inventory studies and shed more light on the effects of mobility. Being mobile influenced the way people lived their lives: they made choices in what to bring with them and what to leave behind, mentally and physically. With soldiers being one of the most mobile groups of society, the cultural implications of their mobility deserve attention.

III.3 The Roman soldiers and mobility

Serving in the army entails mobility. One only has to think of the word ‘mobilisation’, which owes its existence to the army. The army’s intensive mobility ranges from small-scale but widespread movements by military personnel in order to carry out day-to-day working routines to large-scale relocations of various units en bloc in response to acute threats or as part of an offensive campaign. But in spite of, or maybe rather because of, the obvious mobile character of the Roman military, especially in the 1st century AD, the socio-cultural effects of their movements have been neglected. Again, in fairness, the movements of the troops have been subject of many studies, but these have concentrated on just a small (and biased) selection of sources. The traditionally consulted literary sources and monumental epigraphy have revealed the origins and movements of some of the units that made up the Roman army in the Lower Rhineland in the 1st century AD, i.e. the research area of this study, but we are still left with large gaps in our knowledge on this subject. It is the aim of this study to fill these gaps.

Soldiers are not only overlooked in studies on mobility and migration in the Roman world, but in similar studies on contemporary societies as well. Social historians Leo Lucassen and Aniek Smit argue that soldiers, in general, should seriously be considered as migrants as well as workers. This will make us realise that their migration patterns, cross-cultural experiences and exchanges bear crucial resemblances to those of people who more readily answer to the conventional image of migrants.

Lucassen and Smit classify soldiers as ‘organizational migrants’, using explicitly the designation ‘migrants’ which has in general a connotation of some permanence. Hilary Cool, however, describes military personnel, sent to Roman Britain as part of their army postings, as ‘transient visitors’. This description suggests that they were not here to stay, that they were only here temporarily. This raises the question which term is the most applicable to the experience of the Roman military. Here, the character of the Roman army may play a defining role. The army of the Roman Empire was a professional, standing army. Recruits intentionally signed up for two decades or more of service in the Roman army. Calling these soldiers migrants seems therefore appropriate, more than the description ‘transient visitor’, as they were

149 Not excluded were men and women who accompanied those members of the Roman army. Kakoschke 2002, 500.
150 James (1999, 14-16; 2001, 78-79) cautions for the use of the definition ‘the Roman army’. It suggests that the Roman imperial military were a monolithic machine, which they were not. According to James, they are better conceptualised as a social entity with emphasis on its multiplicity.
151 Especially Haynes (1999a, 12) and James (2001, 82) draw attention to the rather mundane but intensive small-scale movements of military personnel.
152 Lucassen & Smit 2016.
153 Cool 2010, 27.
154 E.g. M.A. Speidel 2012, 175.
away from their homes for a considerable amount of time. But labeling them as migrants does not imply that they moved to one place, to one station, region or even province, and stayed there permanently.

In his monograph on *legio III Augusta* Yann Le Bohec presented the model of the three *patriae*, though in a very concise and rather rudimentary manner. This model is meant to explain how a Roman soldier, like any inhabitant of the Roman Empire, may have counted himself to multiple *patriae* or homelands at the same time. Firstly, a person is born in a geographic *patria*. Secondly, he has a legal *patria* (peregrine, citizen). Thirdly, as an inhabitant of the Roman Empire he comes within the ‘Roman’ cultural *patria*. Le Bohec hastens to add that the picture is not complete with solely these three *patriae*: ‘toutefois, [le soldat romain] avait certainement été soumis à des influences diverses, par exemple celles de sa région d’origine et celles de sa province de garnison’. On closer inspection, Le Bohec’s model seems to be based primarily on the study of literary sources, without particular attention to the social category of soldiers. The quoted addition has meanwhile been awarded a role as important as the three *patriae* highlighted by Le Bohec, for a soldier serving in an offensive campaign of the Roman army may have travelled to numerous places and may have been influenced by as many cultures. The mobility resulting from his profession exposed the soldier in the Roman army to diverse cultural influences.

The nature of Roman military mobility was defined by more factors than just the frequency and duration of singular troop movements. Generally, mobility brought about by the Roman army is regarded as forced or compulsory. Eckardt et al. present a different view: according to them forced migration comes down to slavery. They treat this as a category separate from the other main driving forces behind mobility, being the army, the imperial administration and trade. The army falls thus in their overview not in the category of forced migration, but they do describe the auxiliary soldiers as being raised from single tribes or provinces, ‘either by agreement or by forced levy’.

The question is to what extent military mobility was forced. In reality, some of the auxiliary soldiers were indeed forced to enlist, but others voluntarily chose to do so, probably in search of a better future. Full Roman citizenship could open doors to such a future, but obtaining this legal status after having served for twenty-five or more years was not customary for the auxiliary soldiers until the beginning of the 2nd century AD. The regular and high payment of the auxilia, however, seems to have been enough of an incentive for *peregrini* to enlist during the 1st century AD.

As has been stated above, Kakoschke dismisses the mobility of the military because of its forced nature, and he has a point in doing so: the Roman soldiers, like their modern counterparts for that matter, had no choice in where they were going. The direction of their movement was decided from above. Only

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155 Le Bohec 1989, 494. In addition, Saddington (2009b, 83) argues that the distinction between the *patria* by birth and the *patria* in law was a crucial one to the Romans, because ‘acquisition of Roman citizenship did not entail the abandonment of one’s pre-Roman culture’.

156 E.g. Wierschwoski 1995, 17, 21; Kakoschke 2002, 4, 502-503; Kakoschke 2004, 1, 203-205 (with reference to Kakoschke 2002); Killgrove 2010, 30, 32. It is worth noting that Kakoschke does not exclude slaves on grounds of their forced mobility. They must have had as little choice as the soldiers, or even less, in the direction of their mobility. Kakoschke lists slaves among the people who came under the category of ‘mobility on command’.

157 Eckardt et al. 2010, 102.

158 Pferdehirt 2002, 26-27, 167. The existence of cohorts with the titles *Voluntariorum* and *Ingenuorum* seems at first sight to suggest that even Roman citizens and not just *peregrini* voluntarily joined the auxiliary cohorts instead of the better paid legions. On closer account, however, in this case the term ‘voluntarily’ has very probably an euphemistical connotation. Cf. Saddington 1982, 144. See for further discussion chapter IV, p. 55.

159 See above, n. 148.
on retirement they had again free choice in the direction of their movements, although certain incentives such as the founding of colonies, albeit especially for veterans of the legions, will have considerably influenced this choice.\textsuperscript{160}

Whether the nature of army mobility was forced or not, the fact is that the soldiers moved around and were uprooted. This had not only a potential impact on their own cultural behavior – varying from full integration to rigid resistance – but also on the culture of their host societies, which inevitably came in some sort and some degree of contact with them. These processes of mutual cultural transformation will be discussed in more detail in the next chapter.

\textbf{III.3.a Theory and practice}

Explaining and presenting mobility in the Roman world by means of models such as diaspora theory or cosmopolitisation is being complicated by the strained relations between theory and practice in general. Firstly, within the predominantly theoretically minded discussion of mobility in archaeology the practical side of the matter is being overlooked. Trying to get a hold of the past reality by applying mentioned theoretical models, which – bluntly speaking – are basically anachronistic and forced generalisations, pushes choices and actions driven by practicality and functionality to the background. It must not be forgotten that practicality will have had a significant influence on daily life in the past, and not in the least on the way common objects were used and discarded.

Secondly, there is the individual aspect to be taken into account. Inherently generalising models, such as the above-mentioned diaspora theory or cosmopolitisation, force the individual choices and experiences to the background as well. It would be naïve to think that ‘one size fits all’: responses to the intensive mobility of the Roman army in the 1st century AD will thus have been diverse. If such generalising models go at the expense of the practical and individual aspects of the past reality, why then still use such concepts or models like diaspora and cosmopolitisation? Models are a way to approximate the truth, without the unattainable condition that the past as a whole must be reconstructed. We need models as simplifications of reality to capture the past which by definition we cannot revisit and subject to an autopsy.

For the subject of mobility and movement, it seems rather unrealistic to make an explicit distinction between different kinds of these phenomena by using archaeological sources. Although Tatiana Ivleva in her thesis discusses the categories of migration and diaspora separately, it does not become clear if and how one can distinguish the material residue of migration from that of diaspora.\textsuperscript{161} Unfortunately, it appears to be practically impossible to find and gather enough data of the right kind that will either validate or negate the proposed theoretical models, based on sociological phenomena perceived in modern day society. The ideal, most informative data would have to come from personal interviews with individuals, but this method is as good as incompatible with archaeological reality.

The data brought forth by archaeological reality may then not be entirely suitable to be interpreted by means of modern-based sociological models, it does allow for signaling outliers within the available dataset. These outliers are what the present research is aimed at, because they are potential indicators of mobility and they might point at origins and movements of people related to the Roman army that have gone largely unnoticed so far. Therefore, the validity of diaspora theory

\textsuperscript{160} See below, n. 166.
\textsuperscript{161} Ivleva 2012, 19-23, 25-27.
or of the concept of cosmopolitisisation is not of crucial importance to the research at issue, since it has a focus on the manifestations of diversity itself, not on the concepts behind it. Apart from acknowledging the difficulty of ascertaining identities accurately, be they cultural, ethnical or otherwise, attention is focused on the markers for mobility and movement. In that view, it is not fundamentally important why an individual took a particular object with him or her. After all, if a person carried his or her own native name as *cognomen* in the locality of the Lower Rhineland, the explanation that he or she was just accustomed to it, is just as valid as the explanation that he or she longed for home and therefore preferred to be called by that name. Crucial is, that such a marker is actually there, a long way from the person’s place of origin. The act of transporting an object or idea across the Roman Empire and the coincidence that it is left archaeologically visible to us, allows us to signal mobility and potentially determine the foreign elements that were added to the processes of cultural transformation.

III.3.b The tangible link with the homeland

The above-mentioned concepts of diaspora theory and cosmopolitisisation are presented as models for describing the effects of mobility, especially the ways spatial mobility may have influenced identity formation and articulation. The two models differ from each other in their respective direction and focus: whereas cosmopolitisisation is orientated outwards and embraces acculturation, diaspora theory is directed inwards and discourages acculturation. The two concepts do, however, have a notable common trait: they both presuppose a persistent connection with the homeland.

This is where archaeological practice and material culture can make an important contribution by offering a supplement to the theoretical view. Until the end of the 1980s, following the ideas of Moses Finley, mobility within the Roman Empire was considered marginal and minor, with limited possibilities of contact and communication. However, research results and discoveries made in the past decades have shown that reality was different. There are now indications from the archaeological record that men who served in the Roman army, and not only the officers or other privileged personnel, were able to stay in touch with their home fronts. The discovery of the writing tablets from Vindolanda, Vindonissa, Carlisle and Caerleon as well as some of the papyri and ostraka from Egypt present us with evidence for private correspondence between soldiers and their families and friends at home or elsewhere in the Empire. Some letters in fact turn out to have been accompanied by small parcels with food or clothing. It has been suggested that the possibility of maintaining such long-distance communication probably also influenced the settlement pattern of veterans, because keeping in touch with their families and friends would have eased their return to these communities after being away for over twenty-five years. Some soldiers may even have visited their home communities themselves: texts from Vindolanda as well as from Egypt indicate the possibility of leave for enlisted men, although it is not clear how often and for how long those visits of leave were granted. Especially in the early, expansive days of the Roman Empire, the possibilities of leave may have been rather limited.

The soldiers were more or less free in choosing the places where to settle on retirement, if we exclude the legionary veterans who settled in appointed places

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162 Moatti 2013, 2627.
165 Van Driel-Murray 2008, 85. See also Speidel 2009b, 530, n. 81.
(coloniae) due to the missio agraria during the Early Empire. For Britain formal epigraphic sources indicate that in the 1st and 2nd centuries AD about fifty percent of the soldiers – legionary as well as auxiliary – decided to stay in Britain rather than returning to their homelands after they had completed their tour of duty. For veterans of the army of Lower Germany it has been concluded that most of them preferred to settle down in the immediate vicinity of their last army postings or in the urban centres of the region. However, these indications and conclusions are very coarse because they rely exclusively on limited epigraphic evidence. The same goes for the evidence from military diplomas. Earlier analysis, based on the then current state of knowledge, has resulted in a considerably lower number, namely ten percent, of auxiliary soldiers returning to their home countries. Meanwhile the number of known and available diplomas has risen significantly. A recent re-evaluation of the data suggests that a far higher number of soldiers returned home. Still, these numbers must be regarded as rough and general as well, because most provinces have yielded only small numbers of military diplomas that are sufficiently intact to be interpreted. Therefore this source does not allow for a well-founded differentiation on a regional level.

Military diplomas do point to a considerable regional variation in the number of auxiliary veterans that returned to their respective homelands, but by consulting only this one source of information some groups may be over- or under-represented. Roymans and Derks have demonstrated with their Batavian case-study that the analysis of archaeological evidence, in this case military equipment and horse gear, may offer a different view. Discharged Batavian soldiers are poorly represented in the formal epigraphic sources, including military diplomas, but the frequent findings of said objects with a military-Roman connotation in rural settlements in the Batavian homeland seem to indicate that Batavian men returned to their native communities after their service in the Roman army in higher numbers than previously thought. Still, military diplomas are hardly found in the well researched home territory of the Batavians. This might signal unevenness in the general distribution of military diplomas.

The thus available and consulted archaeological evidence suggests that among this specific ‘ethnic’ group of soldiers, their kin and other members of the army train there was a strong inclination to return to their homeland. The Batavians are not the only ‘ethnic’ group to display such a pattern of behavior. The findings of considerable numbers of military diplomas on the territory of the former Roman provinces of Thrace and Moesia inferior indicate that veterans who originally came from these regions seem to have preferred to return to their homelands as well. Nevertheless, there were still others who rather chose to settle down where they or their relatives had been stationed for some time and where they had established a new home base.

Display of origin seems to have been an important part of the soldiers’ identity, since a considerable number of them made the choice and effort to record it

166 Alföldy 2000, 42.
168 Demougin 1999, esp. 372. See also Derks & Roymans 2006, 124-126. Scholz and Klaffki (2012, 115) however place the comment that veterans might just have chosen especially the urban milieu as the context in which they wanted to present themselves epigraphically, but that they certainly have owned property or even have had a domicile in the countryside as well.
169 Eck & Pangerl 2010, esp. 186. See also chapter IV, p. 72-78, for the distribution pattern of military diplomas.
170 See amongst others Haynes 2001, 74-75 and Derks & Roymans 2006, 121-122.
171 This applies in particular to the 1st century AD, going by the culmination of military equipment and horse gear from this period in the research area. Derks & Roymans 2006, esp. 132-133 and n. 41.
172 See also chapter IV, p. 72-78.
173 Alföldy 2000, 42; Van Driel-Murray 2012, 117-119.
in the inscriptions they commissioned.\textsuperscript{174} But the identity of a soldier was not only determined by his ethnic origin. Being part of the military community as such seems often to have been an important aspect of a soldier’s identity as well.\textsuperscript{175} Various scholars have directed attention to the concept of the ‘army as a community’.\textsuperscript{176} As a community the army joined all the separate units of the Roman army (or armies, as some would rather say), dispersed over the Empire. It may have offered a common ground to men with very different ethno-cultural backgrounds but joined together in the same regiment. It is well conceivable that particularly if the original ethnic unity or coherence of a regiment was lost – presuming it existed from the start – soldiers could find a new, substitute feeling of community in the army as such. This new community may have replaced the originally more common, ethnic defined communities within army units. Although here rises again the danger of underestimating the effect of individual choices and practical behaviour, as with the other models, the concept of the army as a community also offers insight in another way the high levels of mobility may have affected the soldiers in the Roman army.\textsuperscript{177}

Since army mobility affected more people than just the servicemen, it may be asked how it affected the women and men who followed in the wake of the military but were strictly speaking not part of a unit, of the army as such.\textsuperscript{178} Van Driel-Murray argues that especially the women of military families stand out for their adherence to regional costume and pottery traditions. A particularly elucidating example are the distinctive northern Germanic types of female footwear found at the site of the Late Roman fort at Cuijk, which have put us on the track of northern mercenaries. The notion has thus been put forward that in those known cases only a few, consciously selected aspects of the traditional material culture, adhering to the place of origin, have been retained or held on to in the new living environment. These choices seem to have operated especially in the domestic sphere, determined by women who followed their male kin

\begin{footnotes}
\item[174] Noy (2010, 14, 25) mentions an Empire-wide tendency for soldiers to record their places of origin in inscriptions put up by them, which can be interpreted as an illustration of their bond with their places of origin and makes it plausible that this not only goes for soldiers in Rome but also for ‘Roman’ soldiers in general. Wierschowski (1995, 17, n. 10) argues against the proposition that especially people who were foreign had the tendency to record their place of origin. Kakoschke (2002, 26) confirms this by concluding that there cannot be ascertained a predominance of foreigners in the epigraphical record in general. However, the situation is different when zoomed in on the 1st century AD. In this period, foreigners seem to be dominant in the inscriptions, for the epigraphical habit was not yet common with the native population.
\item[175] According to Eckardt et al. (2010, 124), this aspect appears to have been even more important than a soldier’s ethnic origin.
\item[176] Esp. Haynes 1999a; 1999b; 2013, 10-20. For a slightly different view on ‘army as a community’, with emphasis on awareness among the ‘fellow-soldiers’ (\textit{commilitones}) of common interests and identity, see James 1999 and 2001, 79.
\item[177] The concept of the army as a community has its effects on the interpretation of the role of the soldiers as mediators of Roman culture. This has been discussed in the chapter on cultural transformation, see esp. p. 31-32.
\item[178] James (2001, 80) underlines that already the early imperial regiments comprised not only the soldiers, but also large and various groupings of non-combatants.
\end{footnotes}
into service. They might offer us clues by which military mobility can be elucidated.179

III.4 Conclusion

Within the framework of this study mobility is to be understood in the broadest sense of the word, as the condition of being able to move. It covers the spectrum from a short travel to migration with permanent relocation. For the people involved in the Roman army – military as well as non-combatants – mobility was a determinant that heavily influenced the way they lived their lives. Several theories and models have been developed to describe and understand the concept of mobility within the Roman world. However, archaeological data is not in its entirety suitable to be interpreted by models based on modern conditions. What it does allow for, is signaling outliers within the dataset which is available to us. These outliers are the main source of information for my research. They may signal mobility and potentially determine origins and movements that are overlooked in the traditionally consulted sources. In this way, our understanding of the composition of the Roman army in the Lower Rhineland in the 1st century AD may be supplemented and enhanced.

179 Van Driel-Murray 2009. This line of research is especially relevant for the here selected category of fibulae and other dress accessories, see chapter VII. Haynes (1999b, 167, n. 6; 2013, 133) mentions an example of possible evidence for the survival of ethnic tradition from Birdoswald, where a 3rd-century inscription features the distinctively Dacian name of Decebalus (RIB 1920). This Decebalus was a young boy who lived no less than 50 to 100 years after the cohors I Aelia Dacorum arrived in Birdoswald. Although Haynes seems to suggest that here an ethnic Dacian tradition has been maintained without a new or recent influx of actual ethnic Dacian people, it remains a possibility that in this case (partially) ethnic recruitment has been carried out.
IV Recruitment and deployment

IV.1 Introduction

In the preceding two chapters, the theoretical framework for the present study of the composition and deployment of the Roman army has been set out. Before the material sources can be scrutinized, it is necessary to complete the theoretical framework for this study with the themes of army recruitment and deployment in the Lower Rhine area during the 1st century AD.

The hypothesis underlying this study is that non-local and at the same time non-Mediterranean cultural elements encountered in the Lower Rhine region may have been brought there by soldiers of the Roman army. To capture the possible canals through which these influences may have reached the Rhineland it is of vital importance to have insight into the recruitment and deployment of the army, both of the legions, of the fleet and of the auxilia.

The aim of this study is to acquire a better understanding of the composition and deployment of the Roman army operating in the Lower Rhine area during the 1st century AD. The auxiliary troops play a major part, because of their diverse natures and because most of the military sites along the Lower Rhine seem to have been occupied by auxiliaries. However, in order to better understand and evaluate the composition of the auxiliary forces of the Roman army, it is important to have knowledge of the recruitment practices for the legionary forces and the fleet as well. Since this study aims to answer who the soldiers operating in the Lower Rhine region during the 1st century AD were and where they came from, it is crucial to know how recruitment for the auxilia differed from recruitment for the legions and for the fleet. It is also necessary to establish where exactly legionaries and fleet soldiers, in addition to auxiliaries, have been attested in the Lower Rhine area.

Although most of the known fortifications along the Lower Rhine were not large enough to house a complete legion, they may have been garrisoned by detachments of legionary soldiers, possibly together with auxiliary soldiers. The presence of legionaries outside of the large fortresses must therefore not disappear from view. Furthermore, the army of Germania inferior encompassed naval forces, the *classis Germanica*. Its main base has been identified at Cologne-Alteburg, at least from around the mid-1st century onwards, but there are strong indications that fleet soldiers were also present at Bunnik-Vechten and Velsen. 180 Hence, the recruitment of soldiers for the legions and fleet will pass in review in the next section, complemented by a discussion of the main areas of auxiliary recruitment and deployment Empire-wide, to set the stage for the case study of the Lower Rhine area. In the following presentation of the main sources on this topic, current views will be addressed and held against the light of available evidence, with particular attention for the Batavian case. Subsequently,

180 Konen 2000, 244-296; Polak 2014b, esp. 94.
auxiliary recruitment patterns will be discussed. In a re-investigation of the sources attention will be focused in particular on evidence for ethnic recruitment.

IV.2 Roman army recruitment

IV.2.a Legionary forces

After Marius had reformed the Roman army around 100 BC, men serving in the legions were professional soldiers who as a rule needed to be in the possession of full Roman citizenship upon enrolment.\textsuperscript{181} The great majority of the recruits for the legions were volunteers. Apparently, Roman military authority did not establish continuous or regular call-ups for service.\textsuperscript{182} Roman citizens were mainly found in the Mediterranean heartland of the Empire, and this was therefore the most important recruiting ground for the legions, at least for those operating in the western part of the Empire.

The situation for the legions in the eastern part of the Empire is different. The legions stationed in Egypt, Judaea, Syria and Cappadocia, and to a lesser degree those on the Lower Danube,\textsuperscript{183} needed already in the early Principate to tap into a different source of manpower, because there were no important nuclei of Italian settlers and few veteran colonies to provide them with Roman citizens eligible as recruits for the legions. Besides, in general very few men from the Italian peninsula volunteered to join the legions. During the 1st century AD the province of Asia minor became therefore the main supplier of men to the eastern legions as well as to the legions on the Lower Danube. A large proportion of them had to be given citizenship in order to be allowed to join the legions.\textsuperscript{184}

In the early Principate men from the Italic heartland still predominated in the western legions, but a conversion of the legions from Italic to provincial forces had already taken off around the middle of the 1st century BC, prompted by the pressures of civil war.\textsuperscript{185} Towards the end of the 1st century AD, recruitment for the legions became increasingly regionalized. According to Lawrence Keppie, the contribution of Italians to the legions had fallen to about 50\% by AD 69.\textsuperscript{186}

During the Principate the number of legions varied repeatedly, due to losses and reinstallments, but there existed never more than 28 legions at the same time.\textsuperscript{187} Around the time of Hadrian’s reign the Italians ceased to volunteer for service in existing legions. However, new legions continued to be raised in Italy until the early 3rd century. The small number of new legions that were formed before, in the early Principate, were not created as replacements for those destroyed in battle or disbanded, but usually in anticipation of fresh conquests. Inscriptions suggest that recruits from outside Italy were admitted as well, but these legions created in the 1st century AD were still mainly raised in Italy.\textsuperscript{188} Nevertheless, by

\textsuperscript{181} Fischer 2012, 17.
\textsuperscript{182} Saddington 2009b, 84.
\textsuperscript{183} See Scheidel 2014, esp. 24-25, for a clear de facto division of the Roman Empire in western and eastern halves.
\textsuperscript{184} Dobson & Mann 1973, 191-193.
\textsuperscript{185} Keppie 1997, 89-90.
\textsuperscript{186} Keppie 1997, 98.
\textsuperscript{187} Note that the highest numeral occurring in a legion’s name is thirty (in legio XXX Ulpia Victrix).
\textsuperscript{188} Mann 1963b, 483-485, 489; Keppie 1997, 99.
the end of the 2nd century each legion was primarily recruited from the province in which it was stationed.

The men from the provinces that enlisted were in the beginning mainly citizens from areas in Gallia Narbonensis, Africa Proconsularis and on the Iberian Peninsula which had been settled by people originating from the Italian peninsula, and men from veteran colonies founded in the late Republic and early Principate.\(^{189}\) Gradually, men from the canabae and the frontier zones, especially the sons of legionaries, became a more important source of manpower. They appeared already in the 1st century AD, increased in numbers during the 2nd and were the most important source in the 3rd century.

In short, legionaries eventually came to be drawn from the provinces. It may be important for the evaluation of the available sources that there seems to be little sign that historians such as Tacitus regarded the change of the legionary forces from Italian to provincial as particularly significant.\(^{190}\) With legions and auxiliary units increasingly sharing the same source of recruitment, the demarcation between these originally essentially different forces became thus gradually less distinct.

**IV.2.b Naval forces**

The main force of the legions on land was supported on water by the fleet. Although the naval forces were relatively expensive to maintain, their versatile usability was worth the costs. Besides their pure military tasks, soldiers of the fleet were also employed in general transport, policing, crafts and production.\(^{191}\) This wide range of duties applied, however, principally to the fleet of the Imperial period. In the Republican era, the Roman authorities commissioned fleets for particular needs. Already in those days men of non-Roman origin were appointed to man the warships.\(^{192}\) It was Augustus who introduced the so-called standing fleets.\(^{193}\) Unfortunately, there are no clear indications for calculating the sizes of the provincial fleets. A tentative estimation of the size of the fleet of Germania inferior lies between 8,000 and 9,000 men.\(^{194}\)

Fleet soldiers had a status of their own. This included a chance to gain citizenship upon honorary discharge. Recovered military diplomas issued to fleet soldiers evidence that they could be granted full Roman citizenship after a full service of 26 years or more, similar to auxiliary soldiers.\(^{195}\) This entails that at least some of the men serving in the fleet did not have full Roman citizenship. As a matter of fact, not only ordinary oarsmen but also captains appear to have received citizenship after enlistment.\(^{196}\)

The fleet for the province of Germania inferior, the *classis Germanica*, was probably established in the Claudian period, perhaps somewhat earlier.\(^{197}\) The earliest epigraphical sources give the impression that many of the fleet soldiers and officers came from the Greek East. This is, however, a skewed image, for literary sources inform us that in particular the oarsmen counted men of native,
local origin among them. Tacitus names explicitly Batavian men, but there is no compelling reason why not men of other Germanic tribes were recruited. It seems likely that experienced mariners with an Eastern background occupied key positions on the ships of the provincial fleet, at least in the pre-Flavian period. It is not clear whether they were gradually replaced by men of local origin in the years after the Batavian Revolt.

Archaeologically, it will be difficult to distinguish fleet personnel from other military personnel. Firstly, various terms from the terminology used in the land army were also employed in the navy, such as centurio or miles. In addition, reliefs on late-1st-century and early-2nd-century gravestones in memory of fleet personnel suggest that soldiers of the fleet used basically the same weapons and equipment as infantry soldiers. However, it cannot be denied that Greek names in the Lower Rhine region are exotic, and that when they do occur, they could well be related to personnel of the army fleet, as evidenced by some of the preserved inscriptions. The above-mentioned issues of military diplomas further indicate that at least some of the men serving in the fleet did not yet have full Roman citizenship.

IV.2.c Auxiliary forces

The auxilia provided crucial back-up on land to the backbone of the Roman army, the legions. The recruits for the auxilia originated from communities in the provinces where Roman citizenship, a prerequisite for service in the legions, was still a rare commodity. On closer consideration, the mechanisms behind and the development of auxiliary recruitment are complicated. In the past various studies have been devoted to them, but still questions and uncertainties remain.

Firstly, there has been much debate about the origin of the auxilia. The main thread in this discussion is the relation of the Imperial alae and cohortes to the so-called Stammes- or Volksaufgebot of the Republican era. The latter were bands of warriors supplied by allied tribes and kingdoms, socii, to support the Romans in their wars. Cretan archers and Balearic slingers, for instance, were part of Caesar’s troops in his conquest of Gaul (but apparently only until 57 BC), and Spanish cavalry is attested in Italy during the Civil Wars (44-31 BC).

Opinions differ as to whether the later Imperial auxiliary units developed directly out of these Volksaufgebot. The discussion is complicated by the use of the expressions ‘irregular’ and ‘regular’ units without being clear what these terms exactly entail. These two categories are mainly derived from the various terms Tacitus used to describe the non-legionary troops deployed in the Julio-Claudian era. Although it has been emphasized that Tacitus’ highly individual style of writing makes it difficult to define and demarcate rigid separate categories, the – various – terms and descriptions he uses for parts of the Roman army can be divided into roughly three categories: legions, professional auxiliaries and additional troops supplied by clients kings or other allies. The additional troops would have been incidental and temporary, compared to the trained professional auxiliary soldiers who would have been attached to the legions. It seems that

200 Konen 2000, 179.
201 Bishop & Coulston 2006, 259.
202 Haynes 2013, 35, 37.
204 Saddington 1982, 44.
hence the expression ‘irregular’ is used for the former, and the expression ‘regular’ for the latter.

It has been difficult to establish the precise difference in character between the so-called irregular and the regular auxiliary units, and how they are related to each other. Early research based on primarily literary sources, especially Tacitus’ work, has led to the conclusion that some Volksaufgebote developed into temporary, irregular units, and others into permanent, regular ones. The irregular units consisting of men with the same ethnocultural background were still commanded by their own elite, while the regular units were not. This view consisted thus of a division in two tracks with a sliding transition.

For the province of Germania inferior detailed studies have been performed by Konrad Kraft and Géza Alföldy. Kraft based his research more on epigraphical sources and concluded that there were three types of auxiliary troops in the pre-Flavian period in the Rhineland, namely incidental and temporary units, units raised by the local tribes themselves but of a more permanent character and units that were fully incorporated in the Roman system, including commanders from Roman stock and deployment outside of the region where the unit was originally levied. The third type developed from the second type. He further stated that the formation of most regular Roman auxiliary units took place only under Tiberius and Claudius, some even as late as the Flavian era. This contrasts with the view held earlier that the organization of the auxiliary units as a regular, structural part of the Roman army largely took place already under Augustus.

For the pre-Flavian units mentioned by Tacitus, Kraft suggested that they had been raised by the tribes themselves, and supplied to the Roman army as allies. As such, they belong to his second type, a kind of intermediate stage, in which the commanders of these ethnically homogeneous units were still from their own elite. Alföldy disagreed with this reconstruction. He stated that the so-called regular auxiliary units developed from the irregular but without an intermediate stage. In his view, the auxiliary units of the Lower German army in the pre-Flavian period consisted of regular and irregular units. He identified the irregular units as Volksaufgebote. The latter could develop into regular units.

Dieter Timpe offers a different view on the origin and development of auxiliary units. He argues that the auxilia of the Principate must not be regarded as a development and continuation of the irregular, temporary Volksaufgebote from the Republican period. According to Timpe, regular auxilia already existed in the Augustan period, at least those with a Germanic origin. In these units, ethnic homogeneity and command by their own elite were not excluded. As a further characteristic, Timpe lists their limited geographical area of deployment. He states that the regular standing auxilia did not develop from early, temporal Volksaufgebote, but that they possibly had their direct predecessors in the so-called Gefolgschaften of elite tribesmen, or in units of mercenaries. Particularly the later cavalry units may have had such an origin. In contrast with the Gefolgschaften and the mercenary bands, the temporal and inconstant character

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206 E.g. Cheesman 1914.
208 Kraft 1951, 35-43. See also Timpe 1970, 50.
209 Kraft 1951, 42.
211 Alföldy 1968, 88, 91. This line of development can be exemplified by the development of the ala Indiana Gallorum, which in Alföldy’s opinion (1968, 19) must have been transformed from an irregular into a regular unit shortly after the Gaulish rebellion of AD 21.
of the Volksaufgebote was politically not reliable and tactically not useful enough for the Romans to deploy them further, according to Timpe.212

After consolidation of the system in the Julio-Claudian period, the non-citizens destined to serve in the auxilia seem to have been either supplied by agreement with the tribes concerned, or raised by dilectus, which may be defined as a forced levy imposed by Roman officials.213 The high numbers of auxiliary soldiers recruited at ages between eighteen and twenty years supports the practice of a centrally organized levy.214 Either by agreement or by dilectus, recruitment for the auxiliary units was initially ‘ethnic’: the ethnic title in the name of an auxiliary cohorts or ala indicates the ethnic group from which the original levy had been made.

A rare insight in the workings of centralized recruitment agency is given by a 2nd-century papyrus fragment found near ancient Philadelphia in Egypt.215 It lists the new recruits that have been added in one year to an unknown auxiliary unit stationed in Egypt. They are noted by year of initial recruitment and by origin.216 Notably, the names of the individual recruits are not written down, at least not in this preserved fragment of the papyrus. Michael A. Speidel concludes that this papyrus is an indication of the wish of the Roman authorities to give the army units, auxiliary as well as legionary and naval, an ethnic diverse composition. By selecting soldiers from different areas of origin to be added to a unit in need of reinforcements, the authorities probably aimed for a maximized strength of the unit in battle as well as a reinforcement of the unit’s loyalty towards Rome, according to Speidel.217

Whatever the reasons or motives were for mentioning the origins of soldiers in this detail, origin apparently mattered. The Roman authorities saw need to explicitly noting it in their administration, as the said papyrus fragment shows. An ostracon found at Krokodiló in Egypt, dating from around AD 109, also indicates that origin was sometimes important enough to figure prominently in discourse. According to the (Greek) text a Dacian soldier had picked up the rumour that ‘all Dacians’ should go to Alexandria with the prefect of Egypt.218 Whatever the aim of the journey was, it applied to all the Dacians. The ethnikon was used as a criterium, a determining aspect. Although admittedly these cases from Egypt are geographically but also chronologically distant from the Lower Rhine area in the 1st century, they signal practices that seem to have been centrally coordinated, and that may have already been carried out early on.

In principle, the auxilia were thus recruited among non-citizens in the provinces, but there were certainly also Roman citizens serving in the auxiliary units of the Roman army. Auxiliary cohorts with the honorary title civium Romanorum started out as regular units in which peregrine men enrolled to take service. With certainty from Domitian’s reign onwards, auxiliary units could be rewarded the title of civium Romanorum in honour of admirable conduct in battle.219 As a consequence the soldiers serving in these units were given Roman citizenship at the time of the grant, although it is also possible that only the soldiers who

216 The years of recruitment listed in the papyrus in question are AD 120 and 121. Egyptian is not mentioned as an origin.
217 M.A. Speidel 2007, esp. 295.
218 O. Krok. 1.98. Note that the Greek text does not literally say ‘prefect’ but just ‘leader’ (ἡγεμών). The Greek word has gradually become the common designation for the Praefectus of Egypt in documents.
had actively fought in the memorable battle received this award.\textsuperscript{220} Subsequent new recruits did not automatically receive citizenship upon entering these units. Therefore, these cohortes civium Romanorum could at various stages be entirely composed of peregrine soldiers.\textsuperscript{221}

The aforementioned units must not be confused with those units carrying the titles Voluntariorum civium Romanorum and Ingenuorum civium Romanorum. The majority of units with these titles seem to have been created already during Augustus’ reign.\textsuperscript{222} They were raised in years of military crises, presumably the Pannonian Revolt in AD 6 and the Varian disaster in AD 9.\textsuperscript{223} The cohortes Voluntariorum civium Romanorum are thought to have been raised from veterans and purposely freed slaves, in order to quickly gather enough men to deal with the demanding military situation on the frontiers. Relying on the designation Ingenuorum only freeborn Roman citizens will have served in the cohortes Ingenuorum civium Romanorum. Although not much is known about these units in detail, the available evidence suggests that in their case the title civium Romanorum was indicative of status on recruitment, not of status won.\textsuperscript{224}

In addition, there existed a small group of citizen units which bore the title civium Romanorum but no further ethnic title.\textsuperscript{225} Although their origin and nature has been debated, the most likely explanation seems to be that they were created out of the remnants of the Rhine legions after the Batavian Revolt (AD 69/70). The initial members of these units would have been former legionary soldiers, who were as a rule in possession of full Roman citizenship. Apparently, recruitment for these citizen units continued into the reign of Hadrian. The army of Germania inferior counted at least one of these citizen units, namely the cohortes II civium Romanorum equitata. It is listed in the diploma of AD 80.\textsuperscript{226}

It has been a long accepted view that for the auxilia in general ethnic recruitment gradually gave way to so-called local recruitment. In his standard work on the auxilia from the reigns of Augustus to Trajan, Paul Holder deemed it possible to identify a basic trend in Roman auxiliary recruitment practices.\textsuperscript{227} In the pre-Claudian period most of the units are supposed to have been supplemented with men from the original recruitment areas.\textsuperscript{228} The system of maintaining the ethnic composition of units started to break down under Claudius, because of the high demands for new recruits ensuing from the expansion of the Empire. The continued troubles in the East during Nero’s reign increased these demands. The general rise of citizenship, through grants bestowed on auxiliary veterans and their families and through municipalisation in especially southern Gaul and on the Iberian Peninsula, made it more difficult to find new recruits for the auxilia, certainly from the original levy areas. The system seems to have undergone further change after the Civil War of AD 68-69. The practice of recruits serving in their home province as well as in adjacent provinces apparently became pervasive. With the more settled stationing of auxilia in the frontier provinces in the Flavio-Trajanic period, local recruitment was inevitable, according to Holder.\textsuperscript{229} As such, local recruitment seems to have become standard. This

\begin{footnotes}
\item[221] Maxfield 1981, 227.
\item[222] Alföldy 1968, 76.
\item[223] E.g. Saddington 1982, 142-144; Haynes 2013, 46-47.
\item[225] Holder 1980, 67; Alföldy 1968, 52-54.
\item[226] CIL XVI, 158.
\item[227] Holder 1980, esp. 121-123.
\item[228] Exceptions to this rule are units stationed in the East in this period, which seem to have started incorporating local recruits already in the pre-Claudian period. Holder 1980, 123.
\item[229] Holder 1980, 123, 142.
\end{footnotes}
change to recruiting locally may have entailed that volunteering replaced conscription as the normal practice.\textsuperscript{230}

The start of the change from ethnic to local recruitment seems thus to have been under Claudius. Interestingly, in his study on the auxilia operating in Germania inferior Alföldy had concluded that the Batavian Revolt was the turning point. In his view, the majority of the soldiers recruited in the Flavio-Trajanic period did no longer originate from the original recruitment area of their units.\textsuperscript{231}

If ethnic recruitment was abandoned and local recruitment became the standard, then this must have resulted in a heterogeneous composition of auxiliary units already one generation after their original levy. It seems to be a popular view that ethnic units completely ceased to be ethnically homogeneous within a generation (twenty-five years) after they had left the region where they had been raised.\textsuperscript{232}

In his analysis of the data Holder thus sketches a gradual replacement of ethnic recruitment by local recruitment. He provides in total fourteen tables of recruits grouped per region of origin. Remarkably, data on Germanic recruits are absent from these lists. In Holder’s presentation of the data, a small number of exceptions occurs for units from various regions of the Empire. Some of these exceptions are worth highlighting here, because they might point at phenomena of more impact or meaning than previously has been presumed.

The evidence for soldiers of Gallic origin shows two notable features. Firstly, recruits for the Gaulish units (predominantly alae) appear to originate mainly from Gallia Belgica.\textsuperscript{233} Secondly, inscriptions relating to Gaulish soldiers and dated to the pre-Flavian period reveal that slightly more Gaulish soldiers are known from non-Gaulish units than from Gaulish units.\textsuperscript{234} This contradicts with the general pattern deduced by Holder and apparent in the data available for other units and regions.

The same deviant pattern – non-ethnic recruitment in the early, Julio-Claudian period – emerges from Holder’s data on Greek and Cretan recruits, Egyptian recruits, Moesian and Macedonian recruits and recruits from Asia minor, Galatia, Cilicia and Bithynia, but for all these data it must be noted that the numbers are probably too low for the deviant pattern to be decisive.\textsuperscript{235} Holder also directs attention to the occurrence of Spanish-born soldiers in non-Spanish units at an early date.\textsuperscript{236} He suggests that these Spanish men were a cadre of experienced men around which a new unit was drawn up. A similar case is described by Tacitus, who writes that to a newly created \textit{cohors Usiporum} experienced soldiers were added to train them.\textsuperscript{237} A practice of mixing experienced men with fresh recruits cannot but distort the basic pattern of ethnic recruitment. The

\textsuperscript{230} Holder 1980, 124.  
\textsuperscript{231} Alföldy 1968, 99-104.  
\textsuperscript{232} See Haynes 1999b, 166, referring to Mann (1963a, 147) who wrote: ‘The general rule is that the tribal name appearing in the title of an auxiliary unit becomes meaningless within about twenty-five years of its transfer away from the area in which it was first raised.’ Haynes added in a footnote that the only exception to this practice may be the Batavian units.  
\textsuperscript{233} Holder 1980, 116.  
\textsuperscript{234} Holder 1980, 116; table 8.1.  
\textsuperscript{235} Holder 1980, tables 8.7, 8.9, 8.10 and 8.12.  
\textsuperscript{236} Holder 1980, 117, 121.  
\textsuperscript{237} Tac. \textit{Agr}. 28.1. Note that it is not made explicit what the (ethnocultural) background of these experienced soldiers was.
possibility is certainly worth considering, but the question is how many more cases such as those of the mentioned Spanish ‘cadre’ soldiers existed.

For the later, Flavio-Trajanic period, Holder observed a pattern of continued ethnic recruitment in the data on British recruits. A caveat should be put in for the suggested pattern because of the low numbers. Strikingly, Holder does not elaborate on the recruitment practice for recruits from Syria and Judaea in the same period, although the presented data suggest that continued ethnic recruitment was applied to them. The numbers of men from Syria and Judaea serving in units originally levied in their home regions are considerably higher than those serving in non-Syrian or non-Judaean units, and also considerably higher than the numbers collected for the British recruits in general.

IV.3 Main areas of auxiliary recruitment and deployment in the 1st century AD

Auxiliary soldiers came from various parts of the Roman Empire, and even from regions strictly speaking outside the Empire. They were also differently deployed, depending on the strengths and weaknesses appointed to their respective ethno-cultural backgrounds and related military traditions. Their recruitment and deployment was also influenced by historical development, as some ethnic groups were earlier incorporated than others.

The armies led by Pompey and Caesar in the Civil Wars in the Late Republic already comprised men from all corners of the later Roman Empire and from beyond, serving as auxiliary troops. Listed in the different accounts are explicitly Gauls, Spaniards and Germans. Sent by their respective kings to aid either Pompey or Caesar were Noricans, Thracians, and Africans. From Greece and the East, including the far-away regions of Cappadocia, Armenia and Arabia, came in particular archers. In the battles ensuing Caesar’s death men from both the East and the West fought in the armies of Mark Antony and Octavian. Among the men from the West Gauls and Spaniards dominated, but Germans, Noricans and Illyrians were also involved. Additionally, men from Africa strengthened the ranks, including soldiers who fought on the backs of war elephants. From the East came Macedonians, Thracians and various Greeks. The territories from Asia minor supplied men mainly as contributions by client kings. Especially Mark Antony’s army at Actium in 31 BC is said to have consisted of auxiliary soldiers from the Greek East.

From Augustus’ reign onwards, the auxilia became more regulated. Their creation and deployment during the 1st century AD will be outlined here, starting in the Mediterranean and then following the borders of the Empire in a clockwise direction.

The many auxiliary units raised on the Iberian Peninsula can be divided in those carrying only the designation ‘Hispanorum’ and those with a tribal name. The latter were created after the conquest of northwestern Spain in 19 BC, but not all necessarily in the Augustan period. Some are first recorded in the reign of Caligula, making his war preparations on the Rhine a very plausible setting, and for the cohorts recruited among the Vascones a creation under Galba must be assumed. The series of ‘Hispanorum’ units were first deployed on the Rhine, in

238 Although Holder (1980, 123) describes those recruits as the only major exception to the upcoming trend of local recruitment after the Civil War, the inscriptions he lists number no more than six for that period, and only eight in total for the period from Augustus to Trajan (table 8.2).
239 Holder 1980, table 8.11 (recruits from Syria and Iudaea) vs table 8.2 (recruits from Britannia).
240 Saddington 1982, 6-14.
Galatia, Egypt, Africa and Illyricum. Other units levied among Hispanic tribes were stationed in Sardinia, Gaul, Germania, Noricum, Pannonia, Germania, Moesia and Africa. With the conquest of Britannia and the Batavian Revolt, a considerable number of Hispanic units were sent to the north.\footnote{Holder 1980, 113, 234-237.}

Sardinia and Corsica also provided auxiliary units. These seem to be early in origin, namely pre-Claudian.\footnote{Holder 1980, 113, 237.}

Gaulish tribes contributed a large number of units. These include practically all the alae denoted by the personal name of their first commander, such as the ala Longoniana and the ala Pomponiani. Those carrying the title ‘Gallorum’ were all levied in the Lugdunensis province. The majority of the Gaulish units were created in the Augustan period, although the evidence for the cohorts is not as clear as for alae. A small number of cohorts seems to have been created somewhat later, but certainly before AD 69. Gaulish units were sent to Gallia Belgica, the German provinces, the Danubian provinces, the Iberian Peninsula, Sardinia, Macedonia, Africa and Britannia.\footnote{Holder 1980, 21-22, 111, 220-222.}

Although epigraphic evidence is scarce, regular auxiliary units formed by Germanic and Belgic peoples were clearly already in existence in the pre-Flavian period. They are all attested outside of their homelands, in Germania superior and Moesia. An exception is the ala I Tungrorum Frontoniana which was stationed at the Lower Rhine in the Claudian-Neronian period. In addition, it is assumed that locally raised but more irregular units operated in their own provinces, perhaps as some kind of militias under command of members of the local elite. After the Batavian Revolt this seems to have radically changed. Although at least one Batavian ala is attested in Germania inferior, most Germanic and Belgic units have been recorded in the Danube region and Britannia. After AD 70 a few more (nominally) Germanic units were raised, which after their creation operated in Britain and Germania superior.\footnote{Alföldy 1968, 58-59; Holder 1980, 110-111, 217-219.} Possibly, these latter units carrying the designation ‘Germanorum’ or ‘Germanica’ counted men from Germania magna among their ranks.

The Alpine regions and Raetia were annexed 15 BC, and soon after locally levied units were raised. The two series of Alpine cohorts served initially along the Rhine and in the Balkans regions. After AD 70 they did not exist as separate units anymore; they had been merged with other auxiliary units. The larger part of the Raetian units was in existence by the death of Nero, but two were created in the aftermath of the Civil War of AD 68-69. The two cohorts carrying the designation ‘Montanorum’ were Augustan creations and the recruits for these units seem to have originated from the mountainous areas between Raetia and Noricum. In the pre-Flavian period they were deployed in Noricum and Dalmatia. The auxiliary units raised in Noricum proper were probably not created much before Claudius’ reign. They were both initially stationed in Germania superior. After AD 70, the ala Noricorum operated for some time in Germania inferior, while the cohors I Noricum went to Pannonia.\footnote{Holder 1980, 111, 223-224.}

Most of the Pannonian and the Dalmatian units were created after the suppression of the Pannonian revolt in AD 9. Two further Pannonian units stem from Trajan’s rule. Although their deployment during the first early decades is not completely clear, inscriptions evidence Pannonian and Dalmatian units operating in especially the western provinces with a strong military presence,
including Germania inferior, but also in northern Africa and in Eastern provinces such as Syria and Egypt.247

Certainly from Tiberius’ reign onwards, after the Thracian revolt of AD 26, units levied in the wider region of Thrace contributed regular auxiliary units to the Roman army. The title ‘Augusta’ borne by several alae and cohortes suggests, however, that these units were already in existence before, under Augustus. After Nero’s death only two further cohorts appear to have been levied. It is said that Thracian units were stationed in Thrace until the Thracian revolt, and that their imminent deployment outside of their homeland actually triggered the revolt. Afterwards, some units were sent to the Rhine and Britannia, while others operated in the Alpine region and Pannonia, in the East and in Africa.248

The only unit raised in Moesia was created during Vespasian’s reign. It stayed in its home region. Nominally Dacian units did not exist before the conquest of Dacia under Trajan. They were initially sent to the East.249

Most of the units raised in the Greek East were already in existence in the reign of Augustus. An exception is the cohorts of Petraeans which were only created after the annexation of Arabia in AD 106. Most of these eastern units were deployed in the eastern and southeastern parts of the Empire, but some were sent north. Relevant for this study is the attested presence in Germania inferior of the *ala Parthorum veterana* and the *cohors Silaucensium* in the Julio-Claudian period.250

In Africa various units had been raised during the 1st century AD, of which some already at an early date, under Augustus. Most of these African units were deployed in the eastern parts of the Empire, but not all of them. A notable exception is the *ala Afrorum veterana*, which is attested in Germania inferior in the Flavio-Trajanic period.251

The first auxiliary units of Britons were raised between AD 43 and 69. They took part in battles of the Civil War in northern Italy, with the exception of one cohort, which was stationed in Raetia. In the Flavio-Trajanic period, new units raised in Britain were deployed in Britain, Germania inferior, Germania superior, Raetia, Pannonia, Noricum, Dalmatia, Moesia inferior, Moesia superior and Dacia. The concentration in the latter three provinces is due to the Dacian Wars, in which most British units took part. *Cohors II Brittonum milliaria equitata* is mentioned in a diploma issued to the army of Mauretania Caesariensis in AD 107, but it has been suggested that this reference applies to a detachment.252

On the whole it seems that auxiliary units were not stationed for long, if at all, in their home provinces. This image may be distorted because of the scarce evidence for the earlier, Julio-Claudian period, as compared to the epigraphically richer Flavio-Trajanic period. Nevertheless, the example of the Thracian uprising against the Roman authorities, because Thracian soldiers would be no longer stationed in their homeland, suggests that auxiliary units were not per se sent away as far as possible directly after their creation. Furthermore, in many

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IV.4 Sources on auxiliary units in the Lower Rhine area

In the previous paragraphs attention was focused on recruitment for the Roman army. In this section, attention will be shifted to deployment, in particular the stationing of Roman army units in the Lower Rhine area during the 1st century AD. A clear divide, at least in the general conception of Roman army deployment, is constituted by the Batavian Revolt of AD 69/70. In his authoritative publication Alföldy concluded that until the Batavian Revolt most of the auxiliary cavalry and infantry consisted of Gaulish and Germanic units.253 After the Revolt, locally levied units would then have been transferred out of their home territories. It has been a long accepted view that the Roman authorities reacted to local revolts, fuelled by indigenous men who were serving in locally stationed Roman army units, by removing those men from their home territory, the area of unrest.254 By doing so, Roman authorities are supposed to have defused the powder keg: these men, armed and with inside knowledge of Roman warfare and tactics, posed as enemies a great hazard to the Roman army. One of the aims of this study is to investigate this supposed divide, to see whether it is as clear-cut as is generally assumed. Therefore, the current state of knowledge will be re-evaluated here, starting with the current view on the composition of the auxilia in Germania inferior. A short chronological overview of the development of the Lower German limes in the 1st century AD will precede this discussion.

The first Roman fortifications in the Rhineland are, at the present state of knowledge, the earliest military bases at Nijmegen and Neuss.255 These were probably built between 19 and 16 BC. The smaller fort at Moers-Asberg seems to have been founded simultaneously.

Between 5 BC and AD 15 a string of smaller forts were constructed in places which offered access into Germanic territory on the other side of the river Rhine. By AD 16 the major Roman operations in Germania were drawn to a halt, but the new fortifications were not instantly given up. In AD 39 military activity in the Lower Rhine area experienced a strong increase due to emperor Caligula’s campaign in Germania and his plan to invade Britannia. On the south bank of the Rhine in the western part of the river delta new forts were built at Valkenburg and Alphen aan den Rijn, probably also at Woerden and Utrecht-Hoge Woerd between AD 39 and 41.256 This new arrangement is in line with an invasion plan for Britannia. Thanks to these preparations the Roman army successfully made the crossing in AD 43, under the rule of Caligula’s successor.

The river Rhine had become of the utmost importance as a logistic artery. When Germanic pirates raided the region in AD 47, the Roman army took action under the command of general Corbulo. When he decided to lead his troops further into northern territory, to deal with the source of the piracy problem and to restore Roman authority in these parts, emperor Claudius recalled Corbulo and his army. Thus, the river Rhine developed into the physical border of the Roman Empire. This did not mean that Rome gave up all her claims on Germanic soil, but from AD 47 onwards the defence line along the Lower Rhine was consolidated.

253 Alföldy 1968, esp. 136-137, 148. See also Knight 1991, 195.
255 At the moment, there are no archaeological features which can for certain be connected with the activities of Caesar’s soldiers in the 50s BC.
256 Cf. Polak 2009, 948.
especially after the formal creation of the provinces Germania inferior and Germania superior around AD 85. The line of forts and watch towers on the left bank gradually condensed, and the accompanying infrastructure, including the limes road, was strengthened and extended. Around AD 100, the Lower Rhine region counted approximately 28 smaller forts and 4 larger, legionary fortresses (fig. 1), offering room for tens of thousands of soldiers.

IV.4.a Numerical strength

The about 32 forts in the Lower Rhine area that existed by AD 100 were not all there from the beginning. The number of fortifications fluctuated during the 1st century AD, in accordance with the demands of the situation in this border region (imminent revolt, wish for expansion or rather consolidation, etc.). These fluctuations apply even stronger to the number and type of soldiers deployed in the research area. It stands without doubt that the soldiers of the Roman army had a great demographic impact on the local community, with an estimated 131 soldiers per kilometer along the Lower Rhine, during the reign of Tiberius. For comparison, the density of the population inhabiting the direct rural hinterland is considered to have been 17 to 18 people per square km.

The calculations and listings made by Alföldy in his monograph of the number of auxiliary units and soldiers operating in Germania inferior serve as a point of reference for this study. Before recollecting the lists per period, it must be noted that Alföldy used high estimations for the number of men serving in alae or cohortes quingenariae and alae or cohortes milliariae. He calculated with the ideal maximum number of men (Sollstärke), namely 500 men for the quingenaria units and 1000 men for the milliaria units, whether infantry or cavalry. There are strong indications that not all units operated on the Lower Rhine in full strength. This becomes foremost clear by the relatively small size of some of the fortifications in the area. For instance, the fort at Valkenburg measuring just over 1 hectare is supposed to have housed only eight turmae, i.e. half an ala quingenaria, in the pre-Flavian phases 1a and 2/3.

Leaving aside the problem of calculating the total number of soldiers present at a certain time in the Lower Rhine area, Alföldy’s listings of the different auxiliary units have become the established notion of the composition of the Lower Rhine army. For the Tiberian period he assumes seven to eight alae and at least twenty, probably even thirty cohortes. The ratio cavalry (alae) versus infantry (cohortes) was thus 1:3 or 1:4. On the threshold of the Flavian period the number of auxiliary units was still considerable, with at least eight alae and certainly eleven to twelve cohortes, but probably more. Their ethnocultural composition seems to have remained predominantly local or regional, with large numbers of units originally levied in Germania and in Gaul. Because of the Batavian Revolt units from elsewhere were commanded to the Lower Rhine area. Alföldy counts six alae and eighteen or nineteen cohortes after this event.

In the aftermath of the Batavian Revolt some auxiliary units were dissolved, if they had not already perished in the Revolt itself, others were transferred out of the area, but there were also new units created and units from elsewhere sent to

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257 With a total of 42,000 regular soldiers. Alföldy 1968, 141.
258 Vos 2009, 213.
259 Alföldy 1968, 136-159.
261 Alföldy 1968, 139-141. This ratio stands in remarkable contrast to the ratio estimated in general for Hadrian’s reign, being 1:2 in favour of the infantry. See Holder 2007, 117.
262 Alföldy 1968, 142-143.
263 Alföldy 1968, 149.
the Lower Rhine. Surprisingly, there seem to have been as well a small number of units staying in or returning to the Lower Rhine area. In the early Flavian period there appear to have been six alae and twenty-one or twenty-two cohortes, according to Alföldy.\textsuperscript{264} In the later Flavian and Trajanic periods the number of units seems to have been reduced considerably, and increasingly. The number of alae apparently remained constant, but the number of cohortes was reduced over time with nine. The ratio of cavalry versus infantry would then have gone below 1:3, according to Alföldy’s calculation method. Especially under Trajan a drastic reduction of the units deployed in the Lower Rhine took place, most likely in relation to the Dacian wars for which a large supply of men was needed.\textsuperscript{265} This resulted in a reduction of more than 40% of the earlier occupation force, leaving only c. 22,500 men stationed on the Lower Rhine of which c. 11,000 were legionary soldiers serving in the two remaining legions.

The fleet is not mentioned in these statistics. An educated guess would be that the total size of the \textit{classis Germanica} amounted to 8,000-9,000 men.\textsuperscript{266} As for the legions, their number is practically constant during the Flavian period, with four listed.\textsuperscript{267} In AD 69 they also numbered four, but in the earlier period of expansion there were more legions operating in Germania inferior. Nevertheless, Alföldy gives an average amount of 22,000 legionary soldiers present in the Lower Rhine area on the eve of the Batavian Revolt.\textsuperscript{268}

These listings were based on the information then available. Fifty years later, the amount of available information has grown, mainly through the increase in finds of military diploma’s, and new interpretations have been proposed. It will become clear that part of Alföldy’s enumerations remain largely valid, but there is certainly also new information to be added and included.

\textbf{IV.4.b Individual units}

The principal sources for our knowledge on the deployment of Roman army units in the Lower Rhine area are literary texts, tile stamps, monumental inscriptions, and military diplomas. The latter are a very important source of information on the deployed auxiliary units, but unfortunately do not cover the whole of the 1st century (as discussed below). By compiling the data from these sources two sets of data can be compared: the units attested as part of the Lower German army in the pre-Flavian period and those in the Flavian period.

The earliest phase of Roman military presence in the Lower Rhine area is the least well documented. Alföldy estimated that during Tiberius’ reign in total four legions, eight alae and about thirty cohortes operated in this region.\textsuperscript{269} The legions are not difficult to identify thanks to the information the literary sources convey, but considerably more difficulties are met when one tries to identify the auxiliary units. With the turning point of the events in AD 69/70, the quantity and quality of the available and usable data improve. At the moment six (fragmentary) diplomas referring to the Lower German army are known to date from the years between AD 69 and 117. With additional information from inscriptions and tile stamps, with particular attention for the mention of the honorary titles \textit{pia fidelis} in the units’ names, an overview can be compiled of the units attested in the Lower Rhine region in the 1st century AD (table 1

\begin{table}
\caption{Units attested in the Lower Rhine region in the 1st century AD}
\end{table}

\textsuperscript{264} Alföldy 1968, 149.
\textsuperscript{265} Polak 2009, 950-951.
\textsuperscript{266} See n. 194.
\textsuperscript{267} Alföldy 1968, 151.
\textsuperscript{268} Alföldy 1968, 137-143, 149-152.
\textsuperscript{269} Alföldy 1968, 140-141.
and table 2). The first table covers the Tiberian and the Neronian period and is based on Alfoldy’s detailed listings. The exact locations where the units were stationed, i.e. the forts they garrisoned, are not taken into account here. The second table presents the data available for the later, Flavio-Trajanic period. Alfoldy’s reconstruction of the Lower German army in the early Flavian period, included in the last column, can thus be held against data gained after the publication of his monograph. Strikingly, the diploma from 98 mentions almost all the units listed by Alfoldy for the early Flavian period. Conspicuously absent from Alfoldy’s list are the cohortes Hispanorum and two cohortes Breucorum. Further lacking are the cohortes Pannoniorum and the cohortes VI Raetorum. On the other hand, Alfoldy mentioned the cohortes VI Thracum and the cohortes XV Voluntariorum.

Table 3 presents an overview of which units have been attested at which military site. It is organised in order of the location of military installations from east to west, i.e. from Remagen to the North Sea coast. Only the military sites and findspots appearing in the present study are included. Per location, the units

<table>
<thead>
<tr>
<th>Auxiliary units in the Tiberian period</th>
<th>Auxiliary units in the Neronian period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batavorum</td>
<td>Batavorum</td>
</tr>
<tr>
<td>Canninefatium</td>
<td>Canninefatium</td>
</tr>
<tr>
<td>Gallorum Picentiana</td>
<td>Gallorum Picentiana</td>
</tr>
<tr>
<td>-</td>
<td>Longoniana</td>
</tr>
<tr>
<td>ALAE</td>
<td>ALAE</td>
</tr>
<tr>
<td>Pomponiani</td>
<td>Pomponiani</td>
</tr>
<tr>
<td>Treverorum</td>
<td>Treverorum</td>
</tr>
<tr>
<td>I Tungrorum Frontoniana</td>
<td>I Tungrorum Frontoniana</td>
</tr>
<tr>
<td>Panthorim</td>
<td>-</td>
</tr>
<tr>
<td>praetoria</td>
<td>praetoria</td>
</tr>
<tr>
<td>V Asturum</td>
<td>V Asturum</td>
</tr>
<tr>
<td>nine cohortes Batavorum</td>
<td>one cohorts Batavorum</td>
</tr>
<tr>
<td>VIII Breucorum</td>
<td>VIII Breucorum</td>
</tr>
<tr>
<td>Canninefatium</td>
<td>Canninefatium</td>
</tr>
<tr>
<td>multiple cohortes Gallorum</td>
<td>III Gallorum</td>
</tr>
<tr>
<td>COHORTES</td>
<td>COHORTES</td>
</tr>
<tr>
<td>Germanorum</td>
<td>Germanorum</td>
</tr>
<tr>
<td>III Lusitanorum</td>
<td>III Lusitanorum</td>
</tr>
<tr>
<td>Siaucensium</td>
<td>Siaucensium</td>
</tr>
<tr>
<td>-</td>
<td>I Thracum</td>
</tr>
<tr>
<td>multiple cohortes Tungrorum</td>
<td>multiple cohortes Tungrorum</td>
</tr>
<tr>
<td>Ubionor eq</td>
<td>multiple cohortes Ubionor eq</td>
</tr>
</tbody>
</table>

Table 1 Overview of auxiliary units assumed to have been stationed in the Lower Rhine area, as listed by Alfoldy (1968, 140, 142). cr: civium Romanorum, eq: equitata, m: milliaria, pf: pia fidelis.

Table 1 Overview of auxiliary units assumed to have been stationed in the Lower Rhine area, as listed by Alfoldy (1968, 140, 142). cr: civium Romanorum, eq: equitata, m: milliaria, pf: pia fidelis.

270 The processed data is primarily derived from Alfoldy 1968, Haalebos 2000, Schmitz 2012 (esp. 338, table 1) and Polak 2009 (esp. 950, fig. 3). For the military diplomas in detail, see CIL XVI, 23 (AD 78), CIL XVI, 158 (AD 80), RMD V, 327 (AD 81-83/84), RMD V, 336 (AD 95/96), RMD IV, 216 (AD 98) and Pferdehirt 2004, no 9 (AD 101).
271 Alfoldy 1968, 140 (Tiberian period), 142 (Neronian period).
272 Haalebos (2000, 44) argues that the order in which the units are listed in the military diplomas does not reflect the exact geographical order in which the units were stationed along the Lower Rhine.
273 Alfoldy 1968, 151, column 1.
274 The list of findspots finishes with three locations where finds have been discovered in the (old) river bed, but where no Roman military findspot is evidenced (as yet).
<table>
<thead>
<tr>
<th>Auxiliary units</th>
<th>Military diplomas plus inscriptions and tile stamps</th>
<th>Alföldy's reconstruction early Flavian period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>78  80  81-83/84  pf  95/96  98  101</td>
<td></td>
</tr>
<tr>
<td>Total number of units counted</td>
<td>6  1  6?  6  6</td>
<td></td>
</tr>
<tr>
<td>ALAE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afrorum veterana</td>
<td>●        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>I Batavorum</td>
<td>o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>I Flavia singularium</td>
<td>●  o</td>
<td></td>
</tr>
<tr>
<td>Indiana Gallorum</td>
<td>o        ●        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>Moesica</td>
<td>●        o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>Noricum</td>
<td>●        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>Silius</td>
<td>●        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>Sulpsicia</td>
<td>●        ?        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>I Thracum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gallorum et Thracum Clasiana</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Augusta Vocontiorum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II Flavia m pf?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total number of units counted</td>
<td>1  11  4  12  25?  19  22</td>
<td></td>
</tr>
<tr>
<td>I cR</td>
<td>o        ●        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>I classica</td>
<td>●        o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>I Flavia Hispanorum</td>
<td>●  ●     o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>I Hispanorum</td>
<td>o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>I Latiboricorum et Varcianorum</td>
<td>●        ●        ●</td>
<td></td>
</tr>
<tr>
<td>I Lucensium</td>
<td>●        o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>I Pannoniorum</td>
<td>o        ●        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>I Pannoniorum et Delmatarum</td>
<td>●  ●     ●        ●</td>
<td></td>
</tr>
<tr>
<td>I Raetorum</td>
<td>o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>I Thracum</td>
<td>?        o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>I Vindelicorum mil. (cR?)</td>
<td>o        ●</td>
<td></td>
</tr>
<tr>
<td>II Asturum</td>
<td>●        o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>II Brittonum m eq</td>
<td>●  o      ●        ●</td>
<td></td>
</tr>
<tr>
<td>II cR</td>
<td>●        o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>II Hispanorum</td>
<td>o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>II Hispanorum eq</td>
<td>o        ●        ●</td>
<td></td>
</tr>
<tr>
<td>II Thracum</td>
<td>?        ●        o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>II Varcianorum</td>
<td>o        ●        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>III Breconorum</td>
<td>●        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>III Delmatarum</td>
<td>●        o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>III Lusitanorum</td>
<td>o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>IIII Thracum</td>
<td>●        o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>VI Asturum?</td>
<td>?        ●        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>VI Breconorum</td>
<td>●        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>VI Brittonum</td>
<td>o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>VI Ingenuorum m</td>
<td>o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>VI Raetorum</td>
<td>?        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>VI Thracum</td>
<td>●        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>VIII Breconorum</td>
<td>o        ●        ●        x</td>
<td></td>
</tr>
<tr>
<td>XV Voluntariorum</td>
<td>o        ●        ●        x</td>
<td></td>
</tr>
</tbody>
</table>
that may have been stationed together or succeeded each other as the main garrison are listed. This table is divided into two columns, as much as possible, separating the pre-Flavian period (in red) from the Flavio-Trajanic period (in blue).

The most striking feature is the low number of units attested in the pre-Flavian period in the lower part of the table, which coincides with the western part of the research area. The high number of units attested in the eastern part in the same period can be explained by the concentration of legionary fortresses in this part of the research area. The garrisons of these fortifications are in general better evidenced, in the sense that they are more often mentioned by name in literary sources and in monumental inscriptions. Regarding the stationing of the fleet Fischer already remarked that there must have been many more docking stations and bases for the classis Germanica apart from the one known naval fort at Cologne-Alteburg.

The listing of the units per site does not necessarily reflect a consecutive order of the individual fort garrisons. Certainly for the pre-Flavian period there are indications that legionary soldiers were stationed together with auxiliary soldiers, implying that detachments of mother units were distributed throughout the operation area of the Lower German army. This is in line with the relative small size of some of the forts in the Lower Rhine area. This image is corroborated by one of the Vindolanda tablets, informing us about the strength of the unit stationed at Vindolanda at the time, the cohors I Tungrorum milliaria. Of the 752 unit members, no less than 456 were absent from the fort. It may thus be assumed that a fort was not per se manned by one unit at full strength, and certainly not continuously. The indications for forts being ‘undermanned’ are, however, contrasted by the data supplied by diplomas issued to members of the Lower German army, at least for the later, Flavio-Trajanic period. It has been noted by Haalebos that the 6 alae and 25 cohortes listed in the diploma of AD 98 is extraordinarily high. With around 25 known or suspected auxiliary forts along the Lower Rhine, there would practically not have been enough room for all these units, if the standard procedure had been to house one unit in one fort. From both perspectives there is reason not to automatically assume that at one auxiliary fort members of only one unit may be expected.

Finally, all the current available data plus Alföldy’s reconstructions are brought together in table 4. A comparison between the list for the pre-Flavian period with the one for the Flavio-Trajanic period reveals that there are indeed units attested in the pre-Flavian period that are not present in Germania inferior in the Flavio-Trajanic period and vice versa. As already noted, the army of Germania inferior is assumed to have been radically reorganised after the Batavian Revolt. In addition, several units seem to have perished during the Batavian Revolt, never to appear in the sources again. Alföldy suggests this applies to ala Pomponiani, cohors VIII Breucorum, cohors V Asturum, cohors Seleucensium and at least one cohors Ubiorum. After the Revolt, units that had rebelled were probably partly dissolved, partly merged with other units or reorganised along new tactic

275 Fischer 2012, 304.
276 Polak 2017, 639-640.
277 Some of them served elsewhere as guards to the provincial governor, others were stationed at Coria, presumably the fort at Corbridge. Bowman & Thomas 1991, esp. 68.
278 Haalebos 2000, 37.
279 Alföldy 1968, 148-149. See also Haalebos 2000, 37.
280 Alföldy 1968, 143.
<table>
<thead>
<tr>
<th>Findspots / military sites</th>
<th>Units attested by monumental inscriptions, brick stamps, literary sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remagen</td>
<td>cohors VIII Breucorum cohors I Thracum cohors II Varicianorum eq cr pf cohors I Flavia Hispanorum eq pf</td>
</tr>
<tr>
<td>Bonn</td>
<td>legio I (Germanica) legio XXI Rapax ala (Tungrorum) Frontoniana cohors I Thracum? ala Pomponiani ala Longoniana cohors V Asturum legio XXI Rapax legio I Minervia</td>
</tr>
<tr>
<td>Cologne-Alteburg</td>
<td>classis (Augusta) Germanica</td>
</tr>
<tr>
<td>Dormagen</td>
<td>legio I - vexillatio ala (Indiana)? ala Notiorum?</td>
</tr>
<tr>
<td>Neuss</td>
<td>legio I (Germanica) legio V Alaudae legio XX Valeria Victrix legio XVI (Gallica) ala Gallorum Picentiana cohors III Lusitaniarum eq? legio VI Victrix</td>
</tr>
<tr>
<td>Krefeld-Gellep</td>
<td>ala Afrorum? ala Sulpicia cr cohors II Varicianorum eq cr pf</td>
</tr>
<tr>
<td>Moers-Asberg &amp; M.-Lauersfort</td>
<td>cohors Seleucensium ala I Tungrorum Frontoniana ala Moesica</td>
</tr>
<tr>
<td>Xanten-Vetera I</td>
<td>legio XIX legio V Alaudae legio XXI Rapax legio XV Primigenia</td>
</tr>
<tr>
<td>Xanten-pre-colonia</td>
<td></td>
</tr>
<tr>
<td>Xanten-Alte Rhein</td>
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<tr>
<td>Altkalkar</td>
<td>(vexillatio) legio I? ala Notiorum</td>
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<td>Titi-Steinsheshof</td>
<td>cohors II eq cr pf?</td>
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<td>Herwen-Bijlandse Waard</td>
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<tr>
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<tr>
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<tr>
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<td>Arnhem-Meinerswijk</td>
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<td>Kesteren</td>
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<td>Maurik</td>
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<tr>
<td>Bunnik-Vechten</td>
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<tr>
<td>Utrecht-Domplein</td>
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<tr>
<td>Utrecht-Hoge Woerd</td>
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<td>Woerden</td>
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<td>Zwammerdam</td>
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<td>Alphen aan den Rijn</td>
<td>cohors VI Breucorum</td>
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<td>Leiden-Roomburg</td>
<td>cohors XV Voluntatorum cohors I Lucensium Hispanorum eq</td>
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<td>Valkenburg-fort</td>
<td>cohors IIII Thracum eq pf</td>
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<tr>
<td>Valkenburg-Marktveld &amp; V.-Veldzicht.</td>
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<tr>
<td>Velsen 1 &amp; 2</td>
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<tr>
<td>Keekerdom /Millingen (river finds)</td>
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<tr>
<td>Heteren-Driel &amp; Doorwerth (river finds)</td>
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<tr>
<td>L. Rhine area (river finds: helmets and shield bosses)</td>
<td>n.a.</td>
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insights. This may have happened to the *ala Treverorum* and *ala Tungrorum Frontioniana*.

Alföldy named two units that seem to have belonged to the Lower German army before as well as after the Batavian Revolt: *cohors I Thracum* and *cohors III Lusitanorum*, although the identification of the latter has been doubted.²⁸¹

For now, these two are put on the list of units staying in Germania inferior after AD 70. Table 4 further makes clear that to these two not only *legio XXI Rapax*, but also *cohors VIII Breucorum* and possibly *cohors I Classica* may be added (all highlighted in bold). It can hardly be doubted that the *classis Germanica*, also known with the title *Augusta*, was also part of the army forces operating in the Lower Rhine in the pre-Flavian as well as the Flavio-Trajanic period. The reorganisation of the army of Germania inferior was certainly drastic, but at least a few auxiliary units seem not have been transferred out of the Lower Rhine area in AD 70.

**IV.4.c Batavian auxiliary units**

A large number Batavian cohorts are included in the overview of military units assumed to have been stationed in the research area (table 4). Eight to nine cohortes Batavorum were supposedly stationed in the Lower Rhine area, the region in which they initially had been levied, in the pre-Flavian period. This assumption is primarily based on literary sources, being *de facto* Tacitus’ work.²⁸² It may, however, be seriously asked whether these infantry units were indeed stationed in their home territory before AD 69, and if so, for how long.

Epigraphical sources are very scarce for the pre-Flavian period in this region altogether and do not inform us about Batavian units. Based on the limited available information, various reconstructions of Batavian deployment in the pre-Flavian period have been presented. Alföldy decisively stated that ‘Bis zum Jahre 43 lagen wohl neun Bataverkohorten und die *ala Batavorum* im Gebiet der civitas Batavorum.’ The ninth cohort and the *ala Batavorum* stayed in the original levy area during and after the Batavian Revolt, according to Alföldy, while the first eight cohorts had been transferred to Britain with the invasion in 43. These eight cohorts were withdrawn from Britain in AD 66. After the Revolt, they were sent back, to participate in the renewed conquest of Britain at the end of the 1st century.²⁸³ Hans van Rossum sees this differently. He argues that only one Batavian cohort was stationed in Batavian territory before the Batavian Revolt; the *ala Batavorum* was part of the army of Germania inferior and might have stationed in the Batavian homeland as well. The remaining eight cohorts are supposed to have been levied in or shortly before AD 43 and sent to Britannia, accompanying the *legio XIV Gemina*. The Batavian cohortes were, in this view, in that province in AD 61, to fight the Boudiccan Revolt, and possibly also in the years between AD 43 and 66.²⁸⁴

Since the Batavian units are said to have accompanied *legio XIV Gemina*, which had its headquarters at Mainz before AD 43, one would expect the Batavian auxiliary units to have been associated with this legion beforehand. Thus, they would most likely have been stationed in the surrounding area, as indicated, between Bingen and Worms. For this there is, however, no epigraphical proof,

²⁸¹ Alföldy 1968, 143, 149; Haalebos 2000, 37, esp. n. 36.
²⁸³ Alföldy 1968, 46, 145.
²⁸⁴ Van Rossum 2004, 115.
Military units in the pre-Flavian period

<table>
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<tr>
<th>LEGIONES</th>
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<tbody>
<tr>
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<td>V Alaudae</td>
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<td>XV Primigenia</td>
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<td>XVI Gallica</td>
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<td>XX Valeria Victrix</td>
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<td>XXI Rapax</td>
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| CLASSIS        |                                |
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<td>Canninefatium</td>
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<td>Gallorum Picentiana</td>
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<td>Longioniana</td>
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<td>Pomponiani</td>
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<td>Treverorum</td>
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<td>Tungrorum Frontoniana</td>
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<td>Partherum</td>
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<td>praetoria</td>
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<th>COHORTES</th>
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<td>Germanorum</td>
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<td>Ubiorum eq</td>
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<td>Seleucensium</td>
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<tr>
<td>I Classica?</td>
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<td>I Thracum</td>
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<td>III Lusitanorum</td>
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<td>V Asturum</td>
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<td>VIII Breucorum</td>
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<tr>
<td>cohortes Batavorum</td>
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<td>cohortes Gallorum</td>
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<td>cohortes Tungrorum</td>
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Military units in the Flavio-Trajanic period

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<td>II Adiutrix</td>
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<td>VI Victrix</td>
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<td>X Gemina</td>
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<td>XXI Rapax</td>
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| CLASSIS        |                                |
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| Germanica      |                                |

<table>
<thead>
<tr>
<th>ALAE</th>
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<tr>
<td>Afrorum veterana</td>
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<tr>
<td>Batavorum</td>
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<tr>
<td>I Flavia singularium</td>
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<tr>
<td>Indiana Gallorum</td>
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<tr>
<td>Moesica</td>
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<td>Noricum</td>
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<td>Siliana</td>
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<tr>
<td>Sulpicia</td>
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<tr>
<td>I Thracum</td>
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<tr>
<td>Gallorum et Thracum Classiana</td>
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<tr>
<td>Augusta Vocontiorum</td>
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<tr>
<td>II Flavia m pf?</td>
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<td>praetoria</td>
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<th>COHORTES</th>
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<td>I cR</td>
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<td>I Classica</td>
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<td>I Flavia Hispanorum eq pf</td>
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<tr>
<td>I Hispanorum</td>
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<td>I Latobicorum et Varcianorum</td>
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<td>I Lucensium</td>
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<td>I Pannoniorum</td>
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<td>I Pannoniorum et Delmatarum</td>
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<td>I Raelorum eq</td>
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<td>I Thracum</td>
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<td>I Vindelicorum m (cR?)</td>
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<td>II Asturum</td>
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<td>II Brittonum m eq</td>
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<td>II Thracum</td>
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<td>II Varcianorum</td>
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<td>III Breucorum</td>
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<td>III Delmatarum</td>
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<td>III Lusitanorum</td>
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<td>IIII Thracum</td>
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<td>VI Breucorum</td>
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<td>VI Brittonum</td>
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<td>VI Ingenuorum m</td>
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<td>VI Raelorum</td>
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<td>VIII Breucorum</td>
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<tr>
<td>XV Voluntariorum</td>
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although no less than twenty alae and seventeen cohorts have been recorded in inscriptions from this region.\textsuperscript{285}

A lack of evidence is not only observable in the epigraphical material. Rien Polak has pointed out that the material culture from the Tiberio-Neronian forts along the Lower Rhine differs considerably from that recovered from rural sites in the Batavian hinterland.\textsuperscript{286} For instance, the hand-thrown pottery that is ubiquitous in the Batavian countryside is virtually non-existent in the forts after the first years of their existence. Coins are comparatively very rare in the countryside. Regarding food, the main cereals consumed in the forts are not the same as those of the rural communities. The archaeological sources thus do not support the presence of Batavian men at the forts in the Lower Rhine area. In sum, there are no convincing positive indications to evidence the stationing of Batavian units in the Lower Rhine area in the pre-Flavian period.

Regarding the Batavian cavalry in particular, Willem Willems and Harry van Enckevort argued that we do know that the \textit{ala Batavorum} was stationed in the area of the Batavians, surely on account of a passage in Tacitus’ work.\textsuperscript{287} They continue with the argument that since we do not know of any other cavalry fort in the Batavian area during the pre-Flavian period, it would seem logical to assume that the Kops Plateau at Nijmegen, with its many finds of horse gear and typical cavalry helmets,\textsuperscript{288} was the home basis of the \textit{ala Batavorum}. They strengthen this idea by pointing at the lack of evidence for a destruction of the fort on the Kops Plateau in AD 69/70, in contrast with almost all other Roman forts and fortresses along the Rhine between Mainz and the North Sea. It could be that the \textit{ala Batavorum} was reluctant to set fire to their own home base, and that therefore no clear burnt layer could be recognized at the Kops Plateau.\textsuperscript{289}

There is, however, another argument that pleads against the deployment of all these Batavian units in the Lower Rhine area. The capacity of the forts in especially the western part of the Lower Rhine area, as far as could be ascertained, excludes the presence of the eight or nine cohortes Batavorum and one \textit{ala Batavorum} in full strength in the Claudio-Neronian period, as is assumed generally. Moreover, it is uncertain whether there were enough camps in the pre-Claudian period to house all the eight or nine Batavian cohorts in addition to the other auxiliary units already attested (see table 4). If they were part of the Lower German army between AD 16 – the end of the German wars – and 69 at all, they cannot all have been stationed in the western part of the region, where their home territory is to be found.\textsuperscript{290} Rather, literary sources tell us that the Batavian cohorts were sent to Britain in AD 43, added as auxiliary forces to \textit{legio XIV Gemina}. Before AD 43, this legion was stationed in Mainz, and it is likely that the Batavian auxiliaries were stationed near the headquarters of this legion to which they appear closely linked. Further, there is no reason to assume that the units had been sent back from Britannia to Germania before AD 69.

Shifting the focus to the Flavian period, it can further be asked whether Batavian units were indeed not stationed in their home territory, irrespective of their deployment prior to the Batavian Revolt. Part of Vespasian’s assumed changes in the way troops were deployed is supposed to be the removal of Batavian units from their area of origin. In the past, it was concluded from the then available

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\textsuperscript{285} De Weerd 2006, 7, with reference to Oldenstein-Pferdehirt 1983, 304; see also Alföldy 1968, 13.

\textsuperscript{286} Polak 2017, 637.


\textsuperscript{288} These will be discussed in detail in the chapter on militaria.

\textsuperscript{289} Such a burnt layer was indeed observed at the nearby site of Oppidum Batavorum (Nijmegen-Josephhof).

\textsuperscript{290} Cf. n. 260.
sources that after the Batavian Revolt the anew created *ala I Batavorum* was sent to Pannonia and the five known cohortes Batavorum, which were also new formations, were first deployed in Britannia and later on transferred to the Danubian provinces.291

The diploma of Elst, discovered in 1988, tells us a different story. According to the text of this diploma, there was an *ala I Batavorum milliaria pia fidelis* stationed in Germania inferior in AD 98. Furthermore, the honorary titles *pia fidelis* may signal that this unit was involved in the suppressing of the Saturninus Revolt in Germania superior, although these titles also might have been awarded after the unit’s commendable participation in the war against the Suebi under Domitian in AD 92-93. If they are to be connected with the revolt of Saturninus, then the unit had probably already been active in Germania inferior in AD 89.

In support of this scenario there are now indications that there was actually another Batavian unit deployed on the Lower Rhine in the Flavian period. This is the *cohors I Batavorum milliaria civium Romanorum pia fidelis*, which is supposed to have been sent to Britannia after the Batavian Revolt. After this mission in Britannia, it came to Pannonia. Subsequently it was temporarily redeployed in Moesia inferior, after which it returned to Pannonia.292 The honorary titles *pia fidelis* signal that the unit may have owed them to its contribution to the suppression of the Saturninus Revolt, and that it thus was deployed in Germania inferior in AD 89.293 This must then have been after its stay in Britannia and before it moved to Pannonia. Its deployment in Germania inferior could not yet be further evidenced, but with the attested presence of an *ala I Batavorum* in AD 98 in the same province, this scenario gains in strength.

In coherence with honorary titles being awarded to Batavian units in the Flavian period, Van Driel-Murray signals that there was actually a serious lack of repercussions after the Batavian Revolt. This would suggest that the Roman military authorities let the revolt go as a mutiny over individual concerns. The loyalty of the tribe as a whole was still considered as strong enough.294 The same line of argumentation is followed by Ian Haynes, who writes that there is no clear evidence for a systematic strategy after the rebellion to break the ethnic identity of auxiliary units and to separate them from their places of origin.295 It seems therefore valid to presume that Batavian units were deployed in their home territory, or at least in their home province, even after AD 70.

**IV.5 Recruitment patterns**

**IV.5 a Sources re-investigated**

After the important studies of Alföldy and Holder the number of known military diplomas has grown tremendously, increasing the available sources.296

292 Gudea 2005, 382.
293 Haalebos 2000, 42-43.
294 Van Driel-Murray 2003, 213. This corroborates with the statement by Strobel (1987, 284): ‘Alle neun Cohortes Batavorum wurden jedenfalls als erwiesene Eliteregimenter wieder in das römische Heer übernommen, wie schon die Beibehaltung der Ordnungszahl eindeutig belegt, und ihnen offensichtlich auch eine besondere Kommandostruktur unter Präfekten nationaler Herkunft garantiert […], eine Sonderstellung, die sie auch nach ihrer Umorganisation wohl im Rahmen der Auffüllung mit den noch vorhandenen Reserven der Civitas Batavorum an Wehrfähigen […] beibehielten.’
295 Haynes 2013, 61.
296 In 1978 about 270 Roman military diplomas had been published. By 1994 this number had risen to more or less 400, according to Weiß (2014). Holder (2017, 13) estimated that around 1,100 complete and fragmentary diplomas have been published to date, of which nearly 800 are identifiable as rewards issued to auxiliary soldiers.
In 2007 Sébastien Gallet and Yann Le Bohec published a re-evaluation of the then available epigraphical sources. Their sources amounted to 150 military diplomas and 711 inscriptions relating to auxiliary soldiers, according to the tables in their publication. Gallet and Le Bohec were able to show that ethnic recruitment continued well into the 2nd century. In their words, it is well assured that ‘certaines unités ont continué à recevoir des hommes venus du peuple au sein duquel elles avaient été créées’, and there existed ‘une forte continuité du recrutement en ce qui concerne certains peuples’. They find an explanation for this continued ethnic recruitment in the practice of the Roman authorities to make good use of the specific competences of various tribes. However, Gallet and Le Bohec define the first and most important rule of Roman recruitment of auxiliaries as follows: ‘qu’il n’y a pas de règle, du moins pas de règle rigide, chaque région de départ et chaque armée d’accueil suivant sa propre évolution’. In other words, variation is to be expected; no single, unique pattern will suffice to describe the practice of recruiting auxiliaries for the Roman army.

This study is joined by others which also seem to reveal a pragmatic system of opportunistic and reactive approaches rather than the basic trend identified by Holder. Alex Meyer summarised that it has meanwhile been shown that recruitment practices for the auxiliary forces of the Roman army varied from province to province and that they were adapted according to political circumstances.

Gallet and Le Bohec thus found evidence for varied practices, including in some cases a continuation of ethnic recruitment. Holder had already listed tables of soldiers serving in units of their own ethnicity, separating the pre-Flavian from the Flavio-Trajanic data. The evidence for continued ethnic recruitment nuances the assumption that ethnic units were no longer ethnically homogeneous within a generation after they had left the area where they originally had been raised. Another remarkable and perhaps unexpected trend in the recruitment practices observed by Gallet and Le Bohec is the continuing deployment of soldiers in the same region as where they had been recruited. It is a widely accepted view that the Batavian Revolt constituted a break in the practice of stationing units in their home region. This change of policy would have been meant to prevent possible local unrest to culminate in similar violent uprisings. However, Gallet and Le Bohec’s analysis of the available data, particularly the inscriptions, seems to show that even during the 2nd century local-born men were stationed in their area of origin. Possibly the risks were no longer deemed that great, or the measures taken by Vespasian after the Batavian Revolt were only applied to units as a whole and not to individual soldiers.

Meanwhile, over ten years have passed, and a revision of Gallet and Le Bohec’s study is necessary. Firstly, since the publication in 2007 new data has been added to the available sources, mainly in the form of diploma fragments. Especially the number of diplomas originating from the Balkans has increased considerably. Secondly, it is not clear how significant the patterns and deviations identified
by Gallet and Le Bohec really are. The sources used for their analysis are unverifiable and appear to be incomplete. The impression arises that the authors based their conclusions partly on the state of knowledge of thirty years ago.

A re-evaluation of the data on auxiliary recruitment, including significance tests, is thus of vital importance, certainly for this study dealing with issues of mobility and identity. The data used for this re-evaluation have been collected from published military diplomas and from inscriptions mainly consisting of funerary and votive monuments.306 Data on soldiers from the legionary and naval forces were omitted from the diplomas as well as from the inscriptions. Soldiers from the so-called civilian cohorts were also excluded because of special recruitment practices deviant from those for the regular auxiliary units. The same goes for data on soldiers who were part of the special forces stationed in Rome, such as the equites singulares or the Praetorian guard, and soldiers who served in irregular numeri and vexillationes, which are mostly temporary constellations to which by definition specific recruitment practices applied. The thus created set of data retrieved from diplomas and inscriptions relates to soldiers from regular auxiliary units, of whom the origin could be identified. The set comprises 377 records (table 5). The diplomas and inscriptions have been found in various regions of the Empire. They date from the Augustan period until the second half of the 3rd century AD.

The data has been interrogated with a focus on how the men have been recruited. Special attention will be paid to evidence for ethnic recruitment on the one hand and regional recruitment on the other. Differences between regions or ethnic backgrounds, and differences in time are reckoned with. In advance it is clear that there are several complicating factors. These will be addressed first, before the analyses of the data on recruitment will pass in more detail.

Spatial aspects

The data sources used here to get a better view of recruitment practices in the Roman army have certain limitations. They are not evenly distributed, in more than one aspect (table 6). First of all, both the diplomas and the inscriptions concerning auxiliary soldiers have an uneven geographical distribution.307 According to the constructed dataset, at least 40% and maybe even as much as 62% of the diplomas has been found in the wider Balkan region, against only 22% of the inscriptions. By contrast, Germany occupies the top of the list of

306 The core of the data on the diplomas has been gathered from the Roman Military Diplomas corpus, published by Margaret Roxan and Paul Holder in five volumes. This was supplemented with data from various issues of the Zeitschrift für Papyrologie und Epigraphik from the period 2004-2014, and checked with data from the 16th volume of the Corpus Inscriptionum Latinarum and its supplement. The relevant inscriptions were selected by performing a query on the online database of the Epigraphische Datenbank Heidelberg (EDH), with filters active on the status, i.e. ‘military personnel’, and on the origo, i.e. ‘present’. Possible inscriptions in Greek referring to Roman auxiliary soldiers have thus largely been left out of consideration. A check with the data in Holder’s work (1980) gives the impression that their number remains small after all. This selection resulted in an inscriptonal dataset which showed that, in accordance with the findings of Gallet and Le Bohec (2007, 283), only about 10% of the inscriptions mentioning auxiliary soldiers contains an origo statement. As a comparison, nearly 22% of all the inscriptions – that is: military and non-military – searchable through the website of the EDH mentions an origo (data retrieved in May 2015). The inscriptions collected from the EDH were then supplemented by inscriptions listed by Holder but not included in the result of the online database query. Furthermore, a couple of inscriptions discovered and published well after Holder’s mentioned work were added to the thus composed dataset. Their number, however, remained rather small.

307 The findspots are grouped per modern geographical units. This is dictated by the information provided by the sources used for this analysis. In some cases it is only stated in which modern country or region a diploma or inscription was found, without further detail, making it often difficult to establish exactly in which Roman province the findspot would have been situated.
modern-day countries or regions where inscriptions have been discovered, with 36%. Hungary is next in line with 14%.

For the uneven geographical distribution of the military diplomas various possible explanations can be named.308 Firstly, a considerable number of the men recruited for the auxilia from certain regions already possessed civil rights. They were probably not in need of a diploma, because they did not have to prove a newly-won status. A second explanation could be the degree of archaeological research that has been done in the various regions of the Empire. If extended excavations with the use of metal detectors have been carried out, chances of

308 Holder 2007, 110-112.

Table 5 Inscriptions and diploma fragments in which auxiliary soldiers are mentioned, arranged per region and in descending order on account of their total share (last column). Those with an unknown or uncertain origo have been left out.
recovering diploma fragments are better. However, extended excavations are certainly not a prerequisite, for a considerable number of diploma fragments have been found outside of excavation projects. Finally, the already mentioned trade in antiquities may have influenced the apparent distribution pattern, as seems to be the case with the high number of diploma fragments allegedly originating from the Lower Danube region and the eastern Balkans, that came to light in recent years.\textsuperscript{309}

For the less but still uneven geographical distribution of inscriptions other explanations can be considered. Firstly, the ‘epigraphic habit’ was more frequent in some regions than in others. Not every individual, group or community was as inclined to set up monumental inscriptions carved in stone.\textsuperscript{310} Furthermore, suitable stone resources were not available everywhere in equal quantities. Some regions of the Empire lacked stone formations suitable for such a purpose. This

\textsuperscript{309} See above, n. 305. Indeed, about half of the 220 diplomas that have been published over the last fifteen years (2003-2018) have been found in the Lower Danube region and the eastern Balkans or are highly suspected to originate from this area. (Remarkably, the findspot of nearly 90 of these 220 items is not given.)

\textsuperscript{310} Cf. Bodel 2001, 8-9.
meant that in those regions, less monumental stone inscriptions were erected, and later on reused or recycled, sometimes resulting in being pulverized to serve as building material. Lastly, the act of setting up an inscription also depended on financial resources, for setting up an inscription must have been a rather costly affair.\footnote{Keppie 1991, 117.}

At first sight, the high number of inscriptions found on the territory of modern-day Germany are the main outlier in this dataset. However, this does not have to be a significant phenomenon when inscriptions from Germany constitute a high portion of inscriptions in general, i.e. within the general dataset. Indeed, in the comprehensive dataset compiled by Mócsy et al. and published in 1983, inscriptions from Gallia Belgica and the two Germaniae are in third position, just after the Hispanic provinces and the Italic regions.\footnote{Mócsy et al. 1983, iv.} A comparison with the currently available data in the large corpus of the Epigraphische Datenbank Clauss-Slaby (EDCS) reveals that over the years the number of inscriptions from Gallia Belgica and the Germaniae has increased by a factor of 2.3, which is slightly lower than the average multiplication factor of 2.5.\footnote{At the time of writing it contained 482,574 inscriptions. For a more detailed overview, see the preface to the discussion of the relevant graffiti per site, p. 109-110.} Nevertheless, inscriptions from these provinces still occupy a third position in the EDCS listings, which means that they have a generally large share of the total of inscriptions recovered in the Roman Empire. This could skew the outlying position of these northern provinces in the list of inscriptions related to auxiliary soldiers.

In addition to the inscriptions from Gallia Belgica and the two Germaniae, those from Pannonia and from Dalmatia also stand out. These provinces appear to have yielded more inscriptions than expected. A statistical significance test performed on this data, with the expected values based on the distribution within the EDCS data collection, shows that indeed in those three regions significantly more inscriptions recording auxiliaries have been found than was expected. In more detail, the Pannonian provinces contribute the most to the deviation of the expected pattern, followed by Dalmatia and then by Gallia Belgica and the Germaniae. Contrastingly, the Italic regions have yielded far less inscriptions than expected in this dataset, but this can be explained by the low proportion of men from theItalic communities that would have joined the auxilia and by the fact that auxiliary units were seldom deployed in this regions at the time under consideration. It is thus safe to say that the Pannonian provinces, Dalmatia, Gallia Belgica and the two Germaniae are outliers in the dataset of this study. This may be explained by the importance of these regions as areas of not only auxiliary deployment but also recruitment for the dataset at issue. Especially during the first half of the 1st century AD, many units were levied from the mentioned regions.

**Chronological aspects**

Both sources also display an uneven distribution in time. First of all, military diplomas have not been issued regularly. They started to be mass produced in the reign of Trajan.\footnote{Weiß 2006.} Under Claudius and Nero diplomas were issued to serving soldiers; only after AD 110 they appear to have been issued exclusively to veterans.\footnote{Haynes 2013, 342.} Furthermore, it has been suggested that the issue of diplomas was not limited to Rome, but that there existed also locally produced certificates. At
least two such documents made out of wood are known. These were probably less expensive, but also less likely to survive. There may thus have been (relatively) more diplomas from a certain period than the present available data suggest.

The earliest diplomas date from the Claudian period. About 73% of the diplomas in the current dataset date from the 2nd century AD. In contrast with the diplomas, only just over 20% of the inscriptions collected for this study date from the 2nd or 3rd century AD. When expressed in a graph (fig. 2), it becomes apparent that the two sources, i.e. military diplomas and inscriptions, complement each other on a chronological level: when the inscriptions with mentioning of origin set in a decrease, the military diplomas are on the rise. The advantage of this uneven distribution in time is that the two sources counterbalance each other, but a predominance of one source at a given time can potentially skew the image.

More than half of the inscriptions presented here can be dated to the pre-Flavian period. There appears to be a striking decrease in the mentioning of origo in inscriptions of auxiliary soldiers after AD 70. To get a more detailed view of the chronological development, the distribution of the inscriptions with an origo statement over five-year periods is analysed (fig. 3). At first sight, the graph shows multiple peaks and drops. Most of them can be explained by the way the inscriptions have been dated. For instance, there are many inscriptions dated to the pre-Flavian or Flavian period, which results in their respective end dates being AD 68 or 96. The rounding-up or down of these dates result in high frequencies for the segments AD 65-70 and 90-95, hence two peaks for these segments. Contrastingly, a considerably smaller number of inscriptions have been dated to the reigns of Caligula, Titus and Nerva, respectively. This could

316 Haynes (2013, 345) mentions a wooden diploma from Fayum, Egypt. Another diploma written on wood is known from Vindonissa. This one had been issued to a legionary soldier. Not only the text of the document but also the size and the form of the letters reminds strongly of the better-known bronze diplomas. It has been dated to AD 91. See M.A. Speidel 1996, Texte Nr. 1, 90-93.

317 A predominance of diplomas from the 2nd century AD can also be ascertained for the corpus of military diplomas in general. I counted 271 diplomas dated to the 2nd century AD among the 351 dated diplomas from my general inventory, against 73 from the 1st century AD. The diplomas from the 2nd century AD constitute in this case 77% of the general dataset.

318 The total number of inscriptions is 208. The end and begin dates of the individual inscriptions have been rounded up or down to the nearest five. Next the number of inscriptions per five-year segments are calculated, with for example an inscription from the Tiberian period counting for 0.25 in the segments AD 15-20, 20-25, 25-30 and 30-35. The values for each of the 208 inscriptions are added up per five-year segment.
explain the drops in the graph at the segments AD 35-40, 75-80 and 95-100. If these peaks and drops possibly related to dating arguments are set aside, then a general trend with a peak in the Claudian period becomes visible. A decline appears to set in around AD 50, continuing into the 2nd century AD. When we compare this to a larger collection of data relating to not only auxiliary soldiers but also legionary and other military personnel, we see a similar decrease in the use of stating one’s origin in inscriptions as time goes by: about 45% of a total of 691 inscriptions collected through a query of the database of the Epigraphische Datenbank Heidelberg[319] can be dated to the 1st century AD or earlier. The perceived decrease of origin statements in the course of time is even more remarkable when one considers that inscriptions in general are most numerous in the 2nd century AD, with a supposed peak around AD 150.[320]

What may have caused this notable decrease in statement of origin, especially after AD 50? In trying to answer this question, it may be useful to approach the issue from another direction. Let us consider the motivations to state one’s origin, instead of omitting it. It is very well conceivable that the need for a soldier to state his origin was especially high when he was serving in a foreign environment, among soldiers of different ethnicities, in a foreign unit or in a region far from his homeland. In her study of migrants from Britannia, Ivleva states that when British auxiliary units were supplemented with Dacians, Thracians, Pannonians and recruits from elsewhere, it led to a necessity for soldiers to emphasise their differences in ethnic origin. According to her, this type of local recruitment was practiced in the 2nd century AD.[321] The data from my research does not correspond with this analysis, as almost half of the inscriptions with an explicit mentioning of *origo* can be dated to the 1st century AD. Rather the opposite seems to be true: while the ethnic composition of military units appears to have become more mixed, the mentioning of origin decreased. If it holds true that military units still consisted mainly of ethnic

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319 With selection criteria being military personnel (‘Persons – status: military personnel’) and any statement of origin (‘Persons – origo: *’).
320 The once widespread hypothesis that the so-called ‘epigraphic habit’ reached its summit during the reign of Septimius Severus, is now being questioned. See Beltrán Lloris 2015, 139-145.
321 Ivleva 2014, 225.
homogenous ranks in the pre-Flavian period, than their ethnic composition cannot explain the need to state one’s origin.

Therefore, a different factor or process seems to bring about this trend of decline after circa AD 50. It appears that the decreased use of *origo* in inscriptions coincides with a decreased use of stating one’s voting district (*tribus*) and filiation, as both *tribus* and filiation tend to be omitted in inscriptions from the 2nd century onwards.\(^{322}\) It has been suggested that the decreased use of filiation may be connected with the declined importance of citizenship. From the 2nd century onwards, social status instead of citizenship appears to have determined legal privilege,\(^ {323}\) which might also explain the decrease in the mentioning of origin in inscriptions by and for auxiliary soldiers. Perhaps stating one’s origin had lost its importance by the 2nd century, similar to stating one’s voting district or filiation. Another explanation could be the change from ethnic to local recruitment, as pointed out by Holder. This change appears to have started already under Claudius.\(^ {324}\) The dynamic environment of high mobility in the pre-Flavian period may have triggered the soldiers to make more reference in inscriptions to their background. This could have helped their identification in such situations in which they may have stayed only for a short time in a certain place or with a certain group of (army) people. With new soldiers being recruited locally and military units becoming more stationary, perhaps the need to refer to one’s origin was less acute compared to previous situations in which the soldiers were highly mobile and were deployed far from their homeland.

*Other influential aspects*

Apart from uneven distributions on a geographical and a chronological level, both sources may also misrepresent the past reality on another, more intrinsic level. Van Driel-Murray warns for the bias inherent in the epigraphic sources in favor of the exceptional.\(^ {325}\) With regard to the military diplomas, she points out that they would not have been required by all discharged soldiers. Especially men who had a different ethnic origin to the rest of the unit would be among the ones who needed a copy of the official discharge document to cross provincial borders to reach home. Other reasons for the need of a diploma may be that the recipients in question had non-local wives, that they were concerned for the future status of their children or that they needed to verify their rights to property.\(^ {326}\)

Holder agrees that apparently only those who claimed a diploma received one. In his opinion the need perceived by a veteran to prove his status or that of his family offers the best explanation for the perceived imbalance between cavalry and infantry recipients. He estimated the proportion of known cavalry to infantry recipients based on dated or closely datable diplomas at approximately 5.6:4 in favour of cavalry recipients, with the warning that the sample is relatively small and the ratio could very well change when new data would be added.\(^ {327}\) This can be checked against the data collected for this study. Of all 525 diplomas in the dataset, including those without an origin statement, 149 can be ascribed to former members of an *ala*, a *cohors equitata*, or a *numerus equitum*. Opposed to this cavalry segment are 162 former soldiers who had served in infantry.

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322 Salomies 2001, 84.
323 Joshel 1992, 186, Appendix III.
324 See n. 229.
325 Van Driel-Murray 2003, 214.
326 Van Driel-Murray 2003, 211, 214.
cohorts. This results in a ratio of approximately 3.7:4, now in favour of infantry recipients.\textsuperscript{328}

These (absolute) numbers are not far apart, and therefore do not suggest a significant imbalance. However, when the total numbers of auxiliary infantry and cavalry soldiers are taken into account, infantry soldiers should be much better represented, since it has been stated that in general auxiliary infantry soldiers clearly outnumbered auxiliary cavalry soldiers. For Hadrian’s reign it has been estimated that the ratio was as high as 2:1 in favour of the infantry soldiers. Strikingly, however, the ratio of infantry diploma recipients versus cavalry diploma recipients for this period is practically inverted, with twice as many cavalry veterans receiving a diploma as there are infantry counterparts recorded.\textsuperscript{329} Holder explains this through the high proportion of Thracian, Pannonians and Dacians among the discharged soldiers in this period. He suggests that they were likely to want a diploma since especially men from these backgrounds returned to their homelands upon discharge and the diplomas may well have eased their return journeys.\textsuperscript{330}

Considering the data of the monumental inscriptions, a bias in favour of the exceptional may be present in this source as well. It may well be that especially the men with a different ethnic background had their origin – namely a divergent origin – explicitly recorded as part of their inscriptions.\textsuperscript{331} In that case an explicit recording of origin is to be expected in inscriptions set up by or for soldiers with an ethnic origin different to that of their fellow soldiers in the same unit. The exceptional is thus favoured. The others did not have to mention their \textit{origo}.

The impression thus remains that not all auxiliary veterans received a diploma, and some process or processes of selection may have been at work. Something similar applies to the men known from inscriptions. Such a process can have far-reaching consequences for the study of recruitment practices by means of data extracted from military diplomas and inscriptions. If some groups are far better represented in the sources we have at our disposal for understanding recruitment practices, then a biased dataset would constitute the basis of the present consensus on recruiting practice. However, the suggested selection processes remain predominantly theoretical; they are difficult to test. The data from the diplomas and inscriptions may be biased, but they are the only data available to us to base our understanding of auxiliary recruitment on. Although it is important to take notice of the limitations of the available data, it must not stop us in further exploring these data.

Continuing on this line, a number of warnings remain to be made before moving on to the general analysis of the data. Firstly, it is important to realise that certainly the diplomas and also most of the inscriptions do not mention by definition the unit in which a soldier was enlisted directly after recruitment. They only record the unit in which the soldier in question was serving at that time. Similarly, the inscriptions for regular auxiliary soldiers in this dataset lack any extensive career listings. Transfers to other units of not only officers, but also private soldiers (\textit{gregales}) are known.\textsuperscript{332} Although their numbers appear to be limited, the possibility should not be lost out of sight.

Secondly, to add to all the limitations and possible pitfalls of the sources, ethnicity itself can be a complicating matter as well. The ethnic identity a person

\textsuperscript{328} The remaining number of 214 could not be ascribed with certainty to either a cavalry or an infantry soldier.
\textsuperscript{329} Holder 2007, 117.
\textsuperscript{330} Holder 2007, 118-119.
\textsuperscript{331} Cf. Nouwen 1997, 263.
\textsuperscript{332} Holder 1980, 121.
identifies himself or herself with, does not necessarily have to be the same as the ethnic identity with which he or she was born. It has been suggested that the appeal of an ethnic identity different to the one by birth in some cases might have been so strong, that people did not give their actual place of birth on their tombstones or even documents, but instead the ethnicity with which they most strongly identified. In this way, ascription to an ethnic identity could have been hereditary transferable instead of geographically restricted. Although this suggestion cannot yet be proven, as is emphasised by Haynes, this less fixed nature of ethnic identity could have major implications for our interpretation and understanding of the sources, such as the military diplomas and the inscriptions of auxiliary soldiers and veterans which incorporate origo statements.333 It does, however, not per se affect the investigations at hand, for the number and range of ethnicities remains large enough to validate an enquiry in their distribution among the various military units and stations. Furthermore, any discrepancies between the ethnicity of a soldier and the ethnic title of the unit he is serving in, remain relevant.

IV.5.b Ethnic recruitment

As stated above, the main focus of the data analysis is to ascertain how men were recruited. The dataset consists of 377 representing soldiers from regular auxiliary units whose origin is explicitly stated. The date range of the complete dataset covers over 200 years, with the earliest records referring to men recruited in the Augustan period, and the latest to men recruited in the late 2nd or early 3rd century AD. For each record the question is asked whether it shows evidence for possible ethnic recruitment. The resulting evidence for ethnic or other recruitment practices is further investigated with special attention for any trends in the attested regions of origin and chronology.

The data show that of the main areas supplying soldiers to the auxilia334 the Pannonian provinces, Thracia, the German provinces, Syria and Gallia Belgica (table 5, last column) have the largest shares. However, as indicated above, the inscriptions and the military diplomas are unevenly distributed. This is also apparent in the distribution on the level of region of origin. Certain regions of origin occur significantly more in the texts of diplomas than in inscriptions or vice versa. From the two Pannonian provinces and Thracia originate the most diploma recipients (table 7), whereas men from the German provinces and Gallia Belgica are best known from the inscriptions (table 8). In the previous section, various arguments have already been put forward as an explanation for differences in spatial distribution, and these may be relevant here as well. The predominance of the Pannonian provinces and Thracia on the list of diplomas is probably influenced by the already mentioned suspicious increase of the number of finds in recent years.335 Considering the distribution among inscriptions, it is more difficult to pinpoint the causes for the Germaniae and Gallia Belgica having the highest numbers. Remarkable is the early date of the inscriptions: they date predominantly from the 1st century AD. When we look at the inscriptions from the 2nd century and later, the province of Syria emerges as the main contributor. In the overall insessional data, however, it has a much lower ranking position,

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333 Haynes 2013, 133, referring to Van Driel-Murray 2003, 210-211. As an example serves the (unattested) identity of the daughters of the Batavian soldier Fronto, who served with the cohors I Batavorum, and his Batavian wife. Their daughters were probably born on the Danube, outside of Batavian territory, but their ethnic identity may have been determined by the community they lived in rather than their geographical birthplace.

334 See section IV.3, p. 57-60.

335 See n. 309.
The ratio between ethnically and non-ethnically recruited soldiers may be considered indicative for the existence of ethnic recruitment. If there is evidence for significantly more ethnically recruited soldiers, a continuation of ethnic recruitment can be assumed to have taken place. For each of the soldiers in the database it has been established — with certainty or possibly — whether a soldier served in a unit of his own ethnic appellation, or in a unit with an ethnic

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<th>Not 1st c.</th>
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Total                  | 84    | 100  | 85          | 100  | 169 | 100  

Table 7 Number of military diplomas per region of origin, arranged in alphabetical order. The sliding color scale in red represents the value of the cells. The highest values are marked in dark red.
When these numbers are compared, it becomes apparent that only eight of thirty-four regions had more soldiers recruited ethnically than non-ethnically (table 9). Of those eight regions (marked in grey in table 9), only the Alpine regions and Raetia supplied more than twice as many soldiers to units of their own ethnic appellation than to other units. With the non-ethnically recruited outnumbering the ethnically recruited as a whole with almost two to one, it would appear that supplementing units with men from the regions where they had originally been levied, was certainly not a general practice. In
other words, this analysis produced no convincing evidence for practices of continued ethnic recruitment.

This does not mean that units levied among ethnic groups did not or did not regularly receive recruits from their homelands.\textsuperscript{336} However, these cases may be

\textsuperscript{336} Ivleva (2012, 157-158) writes that especially the provinces of Thracia, Dacia and the Germaniae provided large numbers of recruits, and that some of these inevitably found their way into respectively Thracian, Dacian and Germanic units. Ivleva refers in this to a personal comment by J. Haynes.
qualified as occurrences by chance. They do not evidence a deliberate policy of continued ethnic recruitment.

Although the number is small and statistically insignificant, the 128 instances of ethnic recruitment include 50 records of men serving in units originally raised in their respective homelands after AD 70, i.e. after the assumed discontinuation of ethnic recruitment in auxiliary recruitment practices. At first glance, these men appear to have been recruited ethnically and thus might provide evidence for the hypothesis of continued ethnic recruitment. However, on closer inspection most of the units in which they were enlisted were probably created relatively late, well after AD 70. The soldiers in question thus seem to have been recruited on an original levy, not an additional recruitment supplement. Striking examples are a number of Syrian soldiers known from inscriptions found in Hungary.

From ethnic to non-ethnic recruitment

As most of the auxiliary units were already raised in the early Imperial period a change from ethnic to non-ethnic (be it local or not) recruitment is expected to be visible in the data from the 1st century AD. To verify this, the data relating to soldiers recruited until AD 100 have been selected, and analysed separately.

First, it is important to look again into the main areas supplying the auxilia, because their shares constitute a basic recruitment pattern. The five main suppliers during the 1st century are also the five main suppliers overall, but their relative positions differ slightly (fig. 4). In the 1st century the Pannonian provinces lead, very closely followed by the province of Thracia, the two Germaniae, Gallia Belgica and Syria. It appears that the Pannonian provinces,

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337 See below, n. 344-346.
339 See section IV.3, p. 57-60.
Thracia, the two Germaniae and Gallia Belgica are better represented before AD 100 than after, whereas the Pannonian provinces and the province of Syria are less well represented, although the Pannonian provinces still have the largest share. When these values are compared with the data for the 2nd century and later, Gallia Belgica has disappeared from the top of the list, with a share smaller than 5%. The shares of the Germanic and to a lesser extent the Hispanic provinces have dropped as well. Dacia, on the other hand, has acquired a prominent position, rivalling Thracia. The comparison between the 1st-century data and the data for the 2nd century and later illustrates a shift in the main recruiting grounds from the western to the eastern parts of the Empire, with the Pannonian provinces strongly expanding their share.

In his study of the auxilia in the period between the reigns of Augustus and Hadrian, Holder already ascertained that the regions of (Belgic) Gaul, Pannonia and Thracia were the main suppliers of soldiers for the auxiliary units. More recently, Haynes stated that prior to Hadrian’s reign, the provinces of the Iberian peninsula, the Gaulish and German provinces, Pannonia and Thracia appear to be the most important regions to supply individual recruits for the Roman army. Most of them continued to do so well into the 3rd century, but the Hispanic provinces ceased to provide large numbers of recruits after the Flavian period. This listing by Haynes corresponds to a large extent with the main contributors in fig. 4, with one remarkable exception: the absence in Haynes’ listing of recruits from Syria. Haynes explains this difference by a division between the western and eastern provinces, in which Syria mainly (but not solely) supplied the eastern provinces. Yet, the inscriptions of soldiers stating a Syrian origin in the dataset compiled for this study have been found in the provinces of Dalmatia, Pannonia superior and inferior, Germania superior and inferior, and Numidia. The Germaniae certainly classify as western provinces, and it may be argued that also the other provinces are more western than eastern, but in theory the military diplomas issued to Syrian soldiers could still tip the balance to the East. However, the inscriptions outnumber the military diplomas in my dataset with 20 to 17. Therefore, the data presented here do not substantiate the explanation that Syria was predominantly a supplier of recruits for the auxiliary units stationed in the eastern provinces. However, if Haynes’ explanation is interpreted more broadly, and Syria is considered to be the main supplier of recruits for units stationed as well as levied in the East, then the explanation could be valid.

Men from Syria are attested along the Rhine and Danube frontiers. Previously, Syrian archers stationed at Mainz and Bingen in Germania superior, and the cohors I Hemesenorum milliaria Antonina Aurelia sagittariorum equitata civium Romanorum stationed at Intercisa in modern Hungary have been presented as evidence for the practice that specialist units continued to draw recruits from their original levy areas. It has, however, meanwhile been proven by David Kennedy that there was no deliberate policy of continued ethnic recruitment for the originally Syrian unit at Intercisa. Kennedy even concluded that ‘the notion of continued recruitment from the East to Syrian regiments is a myth’. This leads us to the next important question: does the subset of data related to recruitment in the 1st century contain evidence for (continued) ethnic recruitment

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340 For the latter, see esp. Dana 2017.
341 Holder 1980, 121-123.
342 Haynes 2013, 105-106.
343 Haynes thinks that Syria certainly was a supplier for some western provinces, but only a major supplier for those of the East. (Pers. comm. I. Haynes.) This fits with his model of recruitment from the nearest convenient source. Haynes 1999b, 166; 2013, 124.
344 E.g. Saddington 2009b, 83.
345 Kennedy 1980, 128-133, 279. See also Haynes 1999b, 166; 2013, 135-142.
in this timeframe? It has already become clear that there is no convincing evidence for this practice when the data for the 1st century and later are considered as a whole (cf. table 9). The question of continued ethnic recruitment is best approached from the opposite direction, in order to see beyond the first, original levies. If evidence for non-ethnic recruitment is found already early on, then continued ethnic recruitment was likely not the standard. Of the available 257 1st-century records, 105 refer to possibly ethnically recruited soldiers, and 152 to soldiers who were probably not. With the ‘non-ethnic’ recruits clearly outnumbering the ‘ethnic’ recruits, there is not enough ground to presume continued ethnic recruitment was the norm in the 1st century AD.

That is not to say that there is no evidence for continued ethnic recruitment at all. Although the majority of men possibly ethnically recruited after AD 68 appear to have been enlisted in units quite recently raised, there are nevertheless a number of records of men who had joined a unit levied more than twenty-five years before in their homelands. Examples are a Philadelphian serving in the cohors I Cilicum (probably raised under Augustus), a Cattenas identified as a member of a subtribe of the Vindelicieri serving in the cohors I Vindelicorum milliaria (likely a Julio-Claudian creation) and a Hamius serving in the ala I Hamiorum sagittarii (assumed to have been installed under Caligula or Claudius).347

When the data on recruitment are reconsidered on the level of cavalry versus infantry, an interesting difference comes to the fore. About 38% of soldiers recruited before AD 69 into alae are ‘ethnic recruits’ against about 63% of the contemporary soldiers serving in infantry cohortes.348 Apparently, the alae counted more foreign (non-ethnic) recruits than the cohortes.349 Perhaps the explanation for this disparity lies in higher demands regarding training and experience of cavalrymen and their horses, as suggested by Kraft. This may have resulted in a wider recruitment area for supplementing the alae, in order to find enough suitable candidates. At the same time, it points to a feature of centralized organisation within the recruitment practices of the Roman army.350

With 152 against 105, there are considerably more ‘non-ethnic’ than ‘ethnic’ recruits during the 1st century AD. The earliest records of soldiers serving in a unit with an ethnic appellation differing from their noted origins can be dated to the Augustan period.351 In the entire pre-Claudian period already 39 soldiers served in a unit with an ethnic appellation different from their own (table 10). They are predominantly men of Germanic, Hispanic, Belgic and Pannonian origin, together making up over 69% of this non-ethnic group. They are followed by men from Syria, with a share of about 10%, although it must be remembered that the numbers are low and apparent patterns cannot be tested for significance.352 For the Claudio-Neronian period the number of non-ethnic soldiers increases to 46. Germanic, Pannonian and Belgic men are still the best represented, with a combined share of almost 61%, but the Thracians have taken over the position of the men originating from the Iberian Peninsula. Men from Syria occupy a considerable lower ranking with now a share of just over 4%.353 In the Flavian period the total number of non-ethnic soldiers rises to 67 men.

347  Philadelphian: *RMD* V, 335; *Cattenas*: *AE* 1935, 103; *Hamius*: *CIL* XVI, 161.
348  Soldiers recorded as members of cohortes equitatae and cohortes sagittariarum are excluded in this.
350  Kraft 1951, 44, 50.
351  E.g. an Helvetius in the ala I Hispanorum (*CIL* XIII, 6234), a Lucocadiacus from the Iberian Peninsula in the ala Pannoniorum (*RIU* 216) and a Germanic Nemes in the originally Gaulish ala Pomponiani (*AE* 1967, 425).
352  The numbers are too low to be subjected to a chi-square test.
353  In the earlier mentioned lists of suppliers for the 1st century the Hispanic provinces were in 6th position with a share of 7.4% (fig. 4, orange bar). In this subset, they seem to have profited from the lower score of Syria.
Pannonian men have taken over the top position. Together with the Belgic and Germanic men they constitute almost 50% of the total of 67. The share of the Thracians has diminished, but they are still among the largest groups, now followed by the Dalmatians with a share of 9%. The number of Hispanic men among the non-ethnic soldiers is in the Flavian period notably larger than in the Claudio-Neronian period. The contribution of the Syrians, on the other hand, has only marginally increased. Again, the numbers are low, but it is remarkable that men from Syria are well represented among the general suppliers of recruits for the 1st century as a whole (see fig. 4, orange bar) but considerably less in these non-ethnic groups observed for the Claudio-Neronian and Flavian periods.

In view of the attested significance of non-ethnic recruitment, objects indicating affiliations with specific regions – the markers of mobility in my research – must be treated with some caution. Certainly for objects pointing in the direction of Thracia, the Pannoniae, the Germaniae, Gallia Belgica and to a lesser extent Syria, there is a good chance that they relate to soldiers who had not been ethnically recruited. Therefore, they do not necessarily attest the presence of units originally levied there. An alternative explanation is that these objects mark the arrival of one or more individual soldiers originating from these regions.

<table>
<thead>
<tr>
<th>Region of origin</th>
<th>27 BC-AD</th>
<th>AD 41-68</th>
<th>AD 69-100</th>
<th>%</th>
<th>%</th>
<th>%</th>
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<td>2</td>
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<td>4</td>
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<td>4.5</td>
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<td>2.6</td>
<td>8</td>
<td>17.4</td>
<td>7</td>
<td>10.4</td>
</tr>
</tbody>
</table>

**Table 10 Number of auxiliary soldiers non-ethnically recruited during the pre-Claudian, the Claudio-Neronian and the Flavian period. The table is arranged per region in alphabetical order. The sliding color scale in red represents the value of the cells. The highest values are marked in dark red.**
either newly enlisted or transferred, or that they have been transported by soldiers with a different background from a former station in these regions.

A characterisation of auxiliary recruitment

The previous evaluation confirms the view that recruits for the auxilia came already early on and increasingly from areas other than the original recruiting grounds of the ethnically levied auxiliary units. Even the Syrian units, formerly considered to be a special case of continued ethnic recruitment, seem to have followed the same practice as the rest of the auxiliary units.354 How can recruitment for the auxilia of the Roman army now be best characterised? According to Haynes, established auxiliary units drew replacement recruits, whether conscripts or volunteers, ‘from the nearest convenient source’.355 John Mann used the same phrasing.356 Haynes further pointed out that George Cheesman had already put forward this idea of recruitment from further away in 1914. At the time, Cheesman wrote: ‘On the whole there is sufficient evidence to show that although each of the great frontier armies contained imported elements, in particular the ubiquitous Thracian and oriental archers, the original policy of the imperial government was to draw the auxilia in each case from the nearest recruiting-areas.’357 Note that the qualification ‘convenient’ is lacking here.

Gallet and Le Bohec in their turn made a clear distinction between regional and local recruitment. In their opinion a soldier is locally recruited when he originates from the direct environment of the fort where the unit he is enlisted in is stationed at the time. When a soldier is regionally recruited he originates from the province where the unit is stationed in, not (necessarily) the direct environment of the unit’s base.358 However, in their conclusion local and regional recruitment are bracketed together, which leads to the assumption that Gallet and Le Bohec do not see important differences between the two types.359

The data presented here indicate that on the whole additional or supplementary recruitment was not ethnic, but also not local or even regional in the meanings used by Gallet and Le Bohec. They match an important general trait of Roman recruitment signaled by Haynes. He argues that there would have been times when it was more convenient and less disruptive to local sentiments to draw recruits not from a local but from a relatively distant source.360 Examples of men recruited during the first half of the 1st century AD include a soldier from Crete serving in the cohort I Noricorum while stationed in Mainz, a Treveran and a Batavian in the ala I Hispanorum in Budapest, and a Hispanic and a Thracian in the ala I Pannoniorum while stationed in Bou Foua in modern-day Algeria.361 They are all non-ethnic as well as non-regional recruits. These men were apparently drafted from distant sources which were geographically not the nearest but for some reason suitable enough to be used at that time. This may qualify these sources as the ‘nearest convenient’, in Haynes’ terminology.

In practice recruitment from the nearest convenient source will have meant that existing auxiliary units received mostly new recruits originating from the direct

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354 See n. 345 and 346.
355 Haynes 1999b, 166; 2013, 124.
356 Mann 1963a, 147.
357 Cheesman 1914, 69-70.
360 Haynes 2013, 124.
environment (local) or at least from the province (regional) in which they were stationed. Sometimes, however, it was necessary to draft men from further away. A quotation from Werner Eck and Andreas Pangerl, writing about the many military diplomas discovered in recent years, underscores this rather practical nature of Roman recruitment: ‘Diese vielen neuen Zeugnisse sagen gleichzeitig, daß die Rekrutierung für die oben genannten Provinzen keineswegs nur lokal oder regional erfolgte, daß man vielmehr in bisher nicht erkanntem Umfang oft oder sogar fast immer auch auf Rekruten aus weit entfernten Reichsteilen zurückgreifen mußte. Manchmal waren diese Rekrutierungsmaßnahmen durch besondere Umstände bedingt, wie etwa größere Verluste bei bestimmten Einheiten […]’.362

The demand for recruits will have been particularly high in times of war, when many soldiers were lost from the ranks. The units on the frontline must then have been in dire need of reinforcements, with trained men being better reinforcements than fresh and inexperienced recruits. It is highly likely that newly recruited men were sent to units which were not on the frontline, and which in their turn sent experienced men to the units which needed them the most.363 This hypothesis may have consequences for the interpretation of the data provided by diplomas. The unit in which a soldier finished his service is not per se the unit in which he had entered as a new recruit.364 Apart from supporting the earlier mentioned existence of a centralized organisation for directing recruitment,365 this reconstructed scenario also suggests that ethnic homogeneity within the units was rather difficult to maintain, even if it had been aimed for or desired. But above all it shows that recruitment for the auxiliary forces was more dynamic than it appears on first thoughts.

IV.6 Conclusions

The stock-taking of the currently available data has made clear that there were more units operating in the Lower Rhine area during the 1st century AD than was assumed fifty years ago. A considerable number of them cannot yet be connected to specific sites, but new discoveries or re-discoveries may locate them at fortifications along the Lower Rhine.

Especially the list of auxiliary units has grown over the years, suggesting a possible increase of ethnocultural diversity among the men stationed in the research area. The number of legions present in the Lower Rhine region has remained stable, but the important insight has been put forward that legionary soldiers shared forts with other soldiers in the early period. Therefore, the presence of legionary soldiers will have spread beyond the commonly accepted legionary sites Bonn, Neuss, Xanten and Nijmegen.

A considerable part of the Roman army operating in Germania inferior consisted of naval soldiers. Their number is estimated to have been about half of the calculated number of legionary soldiers, rising to approximately 8,000 to 9,000 soldiers. Considering that especially in the early days the fleet counted men from the Eastern provinces among its (higher) ranks, the contribution of this part of the Roman army to the cultural melting-pot must not be neglected.

Another aspect that may have been overlooked, is the number of cavalry soldiers present in the Lower Rhine area. Leaving aside legionary cavalry, auxiliary

362  Eck & Pangerl 2010, 192.
363  Eck & Pangerl 2010, 187.
364  Since military diplomas document foremost acts of discharge, they cannot be considered as solid direct evidence for recruitment practices on their own. See n. 332.
365  See above, esp. n. 215.
cavalry did not consist of only the alae. Many cohorts were partly mounted, but unfortunately it is not always clear which cohorts were ‘equitatae’. Nevertheless, the ratio of cavalry versus infantry may well have been greater than 1:3 or 1:4 as indicated by Alföldy.366

The relatively short list of auxiliary units attested at military sites for the pre-Flavian period is most likely to be further augmented, but not necessarily by units levied locally, in Germania. As mentioned above, there are several arguments to be put forward against the popular notion that no less than eight or nine Batavian cohorts were stationed in Germania inferior before the Batavian Revolt.

The re-assessment of the recruitment and deployment of soldiers serving in the Roman army in the Lower Rhine area during the 1st century AD has revealed that there was more diversity than previously assumed. On the one hand, diversity increased because ethnic recruitment was less long continued than previously thought. On the other hand, diversity arose because the garrisons of the fortifications appear to have been more dynamic. Firstly, military sites were not per se occupied by units in full strength. This entails also that men serving in one unit may have been deployed at more than one fort. Secondly, detachments of legionary, naval and auxiliary units may well have been stationed together, especially in the early period. Thirdly, garrisons may have changed relatively often in times of unrest, locally or elsewhere in the Empire. The selected archaeological categories analysed in the following chapters of this study will shed more light on these expected aspects of diversity.

366 See n. 261.
V Graffiti

V.1 Introduction

The first of the selected archaeological categories to be analysed consists of graffiti. Graffiti are here to be understood as names and letters incised on diverse (portable) objects. Most graffiti known from the Roman world express ownership. These owners’ marks can provide us with relevant information when they include (more or less) complete names and names or indications of military units. Although most graffiti are not completely preserved or contain only symbols, single letters (mostly an x) or short abbreviations, a considerable number display recognisable names. Personal names with a limited area of distribution can reveal the origin of the people who went by these names. Names of military units such as cohortes or alae document the presence of soldiers serving in these units.\(^{367}\) Graffiti containing such information are rare, but the nature of the unit may also appear from designations of subunits such as centuriae or turmae.

Not only graffiti inscribed into pottery vessels after firing (\textit{post cocturam}) but also names and designations carved into other objects are considered. Graffiti on metal objects are predominantly punched, resulting in letters made up of small dots. Militaria constitute a large group of non-ceramic objects carrying graffiti, but unfortunately they are often difficult to date. This goes especially for the so-called ownership tags (in the shape of a tabula ansata). In a study of graffiti on non-ceramic objects from the limes region in Germania superior, Stefan Pfahl notes that most of the ownership marks on militaria date from the period AD 100-260.\(^ {368}\) However, there is not enough ground to assume that such metal tabulae ansatae with names inscribed are exclusively from the 2nd century AD or later.

First, a selection was made on account of the nature of the sites. Only graffiti from sites of known or assumed Roman military installations were selected. Often it could not be ascertained whether the graffiti came from the military site itself or rather from the adjacent civil settlement, the vicus or canabae. In the past, graffiti have been considered as a key indicator for the presence of soldiers or veterans on a site.\(^ {369}\) Studies of graffiti from civilian sites such as Augst-Augusta Raurica, Xanten-Colonia Ulpia Traiana and the vicus at Frankfurt-Heddernheim have however shown that women for instance also incised their name on pottery.\(^ {370}\) Although female names are considerably less well attested than male names, the claim that graffiti signal the presence of soldiers and veterans cannot be maintained exclusive. Graffiti remain, nevertheless, an important indicator for military identity and mobility, not in the least because some of the graffiti include names of military units or other army indications.

Moreover, especially in a military setting of communal working and living soldiers may have found it necessary to mark their possessions.

Approximately 3,300 1st-century graffiti from military sites on the Lower Rhine have been collected and evaluated for the research at hand. These graffiti were analysed on various levels. As each individual piece can potentially be informative on its own, individual graffiti are taken into account on a separate

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\(^{367}\) They do not per se document the presence of the entire unit.

\(^{368}\) Pfahl 2012, 73.

\(^{369}\) Cf. Visser 2010, 57.

level. Only complexes counting a hundred or more graffiti were deemed suitable for analysis with respect to broader patterns.

Before the relevant graffiti will be discussed per site, some general remarks and explanations will be put forward. These serve as a framework for understanding the individual graffiti. After a discussion of the graffiti per site, an overview will be presented highlighting patterns of identity and mobility of the Roman army throughout the research area.

V.1.a Preliminary remarks on distribution

Functional distribution

In general, graffiti are inscribed onto pieces of terra sigillata, and the inscribed vessels are mainly undecorated. When the 1st century terra sigillata is considered as a whole, the shares of the cups and bowls on the one hand and the dishes and plates on the other do not differ much. With 52 percent cups and bowls versus 46 percent dishes and plates the two main categories of terra sigillata vessels are relatively close (table 11). The graffiti are predominantly placed on the external bases of the vessels.

Among the material from the Lower Rhine area the graffiti recovered at Nijmegen-Hunerberg in 1987-1997 are conspicuously deviant in more than one respect. Not only is their number remarkably small, but the majority of the graffiti occurs on amphorae. Of all the graffiti, hardly twenty percent is found on terra sigillata vessels. That most of the graffiti are found on amphorae, may be related to the nature of the site and consequently the nature of the archaeological dataset. The vast majority of the over 500,000 archaeological objects collected during these excavations are related to the canabae occupying this site in the Flavian period. Many amphorae appear to have been reused as storing containers in the canabae adjacent to the Flavian fortress on the Hunerberg, which might explain the encountered high number of graffiti on amphorae. Some of the amphorae were found dug in, by which occasional graffiti of a previous owner probably will have been covered up, losing their functionality. Perhaps the inhabitants of the canabae preferred to buy or otherwise procure second-hand containers from the occupants of the fortress, who had more direct supply lines for the produce originally transported and stored in this type of pottery. Hence,

<table>
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<tr>
<th></th>
<th>Bunnik-Vechten*</th>
<th>Nijmegen-Kops Plateau</th>
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<td>47 40.5</td>
<td>231 42.5</td>
<td>785 45.9</td>
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<tr>
<td>Other/unknown</td>
<td>6 0.9</td>
<td>11 3.0</td>
<td>0 0.0</td>
<td>14 2.6</td>
<td>31 1.9</td>
</tr>
<tr>
<td>Total</td>
<td>645 100</td>
<td>362 100</td>
<td>116 100</td>
<td>543 100</td>
<td>1666 100</td>
</tr>
</tbody>
</table>

Table 11: Overview of the ratios of terra sigillata vessels with graffiti from four selected sites, divided among three categories.

*The analysed vessels from Vechten are only stamped Arretine and South Gaulish terra sigillata.

371 When the Arretine ware is considered separately, the cups and bowls appear to dominate among the vessels with graffiti. This feature has however also been recognized among Arretine ware in general. Cf. Niemeijer 2014, 11-12.
372 The data presented in this table stems from the four sites with the largest datasets of graffiti on 1st-century terra sigillata, and have also been published separately in the Proceedings of the XXIII International Congress of Roman Frontier Studies (Zandstra 2018). The numbers are based on the following sources: for Bunnik-Vechten the archives of S. Wynia and M. Polak on stamped Arretine and South Gaulish terra sigillata, for Nijmegen-Kops Plateau the data of the excavations 1986-1995 (see below), for Xanten-Vetera I the publication by Hanel (1995) and for Neuss the dissertation of Kütter (2008).
373 Already noted by Haalebos (Haalebos et al. 1995, 51).
it may even be more likely, that the names inscribed on the amphorae refer to people from the fortress and not to people from the canabae.

Socio-cultural distribution

More relevant than the objects that were inscribed, are, at least in the framework of this study, the people who inscribed them. In a study of graffiti from Haltern, Brigitte Galsterer concluded that elite names were well-represented, and that therefore the vessels with graffiti will have belonged to the higher ranks.\(^{374}\) Although she explicitly warns that this picture may be false, this observation may serve as a starting point for further investigation.

One could equally reason for an opposite scenario: if we assume that graffiti were needed to distinguish one’s possessions from those of somebody else, then graffiti were probably most needed in locations were groups of people lived together. The belongings of officers are perhaps the least likely candidates, because they had their own private living quarters and probably used other, more luxury types of tableware. Contrastingly, common soldiers shared their living spaces with fellow-soldiers and made use of ceramics rather than metal or glass vessels. As a contubernium, these men spent part of their days and most of their nights together, confined in a small space. It is very well imaginable that these conditions demanded the marking of one’s belongings.

Most collections of graffiti from military sites do not allow for an assessment of the rank or status of their owners, not even large assemblages as those from Haltern and Xanten-Vetera I. A study of their spatial distribution might have been helpful, but for Haltern Galsterer refrained from such an analysis as she saw too many problems connected with the find contexts.\(^{375}\) This may also apply to Xanten-Vetera I. The distribution of graffiti across the excavated areas appeared to have some distinct concentrations, but since individual pieces could not be securely attributed to a specific occupation phase of the fort, these concentrations might have other causes than a socio-cultural inclination.\(^{376}\)

With the data from the 1986-1995 excavations on the Kops Plateau at Nijmegen, further analysis is possible. With the available dataset, distribution maps of various find categories can be made. To plot the graffiti it was necessary to make some preliminary calculations. First, a grid of rectangular blocks was defined. Then, the absolute and relative numbers of graffiti per block were calculated.\(^{377}\) In the visualisation of the results the blocks that are coloured dark red contain more graffiti than one would expect on the basis of a normal distribution (fig. 5).

The blocks highlighted in red do not encompass identified buildings or complexes. Rather, it seems that the graffiti were mainly found in the spaces between the main buildings, and outside as well as inside the main defences.\(^{378}\) When this thematic map is compared to a distribution map in which clusters of earlier and clusters of later features are highlighted (fig. 6), it appears that the blocks with significantly more graffiti do not correlate exclusively

\(^{374}\) Galsterer 1983, 33.
\(^{376}\) Hanel 1995, I, 158.
\(^{377}\) The total amount of pottery per block was calculated by adding up the number of records containing pottery fragments as listed in the database. The next step was to calculate the percentage of pottery records with graffiti per block. For this calculation the total number of records containing pottery fragments was used as a basis. Then, each of the blocks was classified under one of four range categories. These ranges had been calculated on the basis of the average and the standard deviation of the graffiti data in terms of percentage. The significant outliers, i.e. the blocks with considerably low or high amounts of pottery with graffiti, were assigned to the two outer range categories (visualised by respectively the colours green and red in fig. 5).
\(^{378}\) Cf. Van Enckevort 1995, 557, fig. 6.122.
with clusters of early or rather late features. Chronology and socio-cultural differences or differences in rank seem therefore not to be the main determinant for the distribution of the graffiti on the Kops Plateau. Considering the high concentrations in the area surrounding the southern gateway, it may be that features such as the ditches of the subsequent building phases constituted so-

Fig. 5. Distribution of graffiti across the Kops Plateau site at Nijmegen. Red: significantly more graffiti than expected; green: significantly less graffiti than expected.

Fig. 6. Distribution map of clustering contexts on the Kops Plateau. The Low-Low Clusters probably belong to the Augusto-Tiberian phase, the High-High Clusters are most likely Claudio-Neronian in date. Beijaard & Polak 2017, 40, fig. 10.
called ‘artefact traps’, including a relatively high number of objects carrying graffiti.

**Chronological distribution**

In earlier studies of graffiti from military sites on the northwestern frontier, it has been noticed that earlier vessels carry notably more graffiti than later ones. For instance, in his study of the material recovered from the Kops Plateau between 1914 and 1921 Joseph Breuer remarks that ‘les marques principales et lisibles sont presque toutes tracées sur des pièces remontant au règne d’Auguste ou très légèrement postérieures’. According to the data presented by Galsterer, excavations at Haltern yielded a remarkably large number of graffiti. She estimated that almost half of the excavated plain terra sigillata vessels contained a graffito or graffiti. At that time, it was not possible to make a meaningful comparison with other military sites. However, the strikingly high occurrence of graffiti at Haltern asks for an explanation, as Galsterer herself stresses.

In principle, one could think of various explanations for the suggested fluctuations in the occurrence of graffiti. Viewed from a practical perspective, it might have been easier to scratch into some categories of terra sigillata vessels than others. If, for instance, dishes were easier to mark than cups, an increasing preference for dishes over time might lead to an increase in numbers of graffiti. It is also conceivable that the earlier Arretine vessels were in use for longer than the later South Gaulish vessels. If the same percentage of both categories were marked, there would nevertheless be an increase in the frequency of graffiti, because of the generally higher number of recovered South Gaulish vessels. The incidental occurrence of erased graffiti does suggest a change of ownership of some terra sigillata vessels, and therefore a certain longevity. Perhaps those vessels with erased graffiti were the more expensive types, bought in times of relative scarcity of the products, and therefore treasured to such an extent that their owners marked them. A similar argument could be made for some vessels, perhaps especially Arretine vessels, being in use for a longer time than others. These longer-in-use vessels may have been for some reason more treasured, and perhaps therefore marked.

Other explanations focus more on external factors. A particularly interesting potential factor is mobility, for it has been put forward that the occurrence of graffiti was higher in times of intense mobility. In a study of the material from Vetera I, Norbert Hanel suggested that the difference between the frequency of graffiti on Arretine and South Gaulish terra sigillata is linked with two phenomena. He states that, on the one hand, Arretine ware was more expensive and more difficult to acquire than South Gaulish ware, and that it is, therefore, very well conceivable that people made more of an effort to protect their precious Arretine vessels. On the other hand, the need for soldiers to mark their belongings was, according to Hanel, probably higher during Augustus’ reign, when Arretine ware was in use, because the army units were often transferred in this early period. He adds that the consolidation of the Rhine frontier that started during the reign of Tiberius resulted in a permanent stationing and a long-term stay of the soldiers in one place. The need to protect their belongings would thus

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379 The following section has been published separately, in a slightly different form (Zandstra 2018).
380 Breuer 1931, 114.
381 Galsterer 1983, 4.
382 Galsterer 1983, 5.
384 Hanel 1995, I, 156.
cease to be a consideration. Hanel thinks that this change in the level of mobility also explains the large number of graffiti from Haltern, as the fortress at Haltern was only in existence during the period of high mobility before the Rhine had become the northwestern frontier of the Roman Empire.

To test the hypothesis that mobility affected graffiti frequency and to detect any possible chronological developments in the occurrence of graffiti, an exploratory analysis was made of data collected from four selected military sites on the Lower Rhine. These four complexes, which were all founded during the Augustan period, are Bunnik-Vechten (Fectio), Nijmegen-Hunerberg, Nijmegen-Kops Plateau, and Xanten-Fürstenberg (Vetra I). These sites have produced datasets that appear to be large enough and organized in such way that they are suitable for various analyses. However, Vetra I and Kops Plateau did not continue into the Flavian period, as opposed to Vechten and Nijmegen-Hunerberg. This difference in chronology may have influenced the graffiti data.

All vessels of Arretine and South Gaulish terra sigillata that were marked with graffiti were analysed; not only names and letters but also simple crosses and lines were considered. These illiterate marks counterbalance the names and letters, which can be considered as a manifestation of the higher level of literacy among legionary soldiers. Since the illiterate marks are included, the legionaries’ theoretical headstart in literacy, compared to the early auxiliaries, cannot be the sole explanation for a possible early peak in the occurrence of graffiti.

The selected terra sigillata vessels with graffiti were analysed with a focus on their chronological distribution. At first sight, the results suggest that the graffiti were not evenly distributed over time. Graffiti appear to be much more common on the early Arretine terra sigillata than on the later South Gaulish ware, with 13-34 against 0-17 percent of all stamped vessels (fig. 7). On all four selected sites, the early Arretine ware carries more graffiti than the younger South Gaulish terra sigillata.

The sizes of the samples are a matter of concern. The largest overall dataset of the four selected samples stems from the Nijmegen-Hunerberg site. Although the 1987-1997 excavations have produced more than 30,000 fragments of terra sigillata, only a minor proportion can be dated to the pre-Flavian period. Since the military sites of Vetra I and Kops Plateau were no longer in use after AD 70, the Flavian period remains hidden from view, which makes chronological developments over a longer period difficult to grasp. An extension of the data selection would solve this problem, but it was not possible to do this for all four sites on an equal level. It was therefore decided to limit further analysis to the data from Bunnik-Vechten. Thanks to earlier work by others it was possible to compile a database of 884 graffiti on stamped terra sigillata.

385 The main sources of information were the online published database of the 1946-1947 excavations (http://dx.doi.org/10.17026/dans-zbf-75q5) and the personal archives of M. Polak and S.L. Wynia.
386 The database of the 1987-1997 excavations resides with Radboud University Nijmegen. Additionally, personal autopsy and the consultation of archives and publications were used to gather the necessary data.
387 The database of the 1986-1995 excavations has been made available online (http://dx.doi.org/10.17026/dans-znx-zrhj). Similar to the enquiry into material from Nijmegen-Hunerberg, personal autopsy and the consultation of archives and publications were additionally used to gather the necessary data.
388 Hanel 1995.
389 Following Weiß-König (2010, 118-121) confidence intervals have been calculated for these graffiti frequencies.
391 Hence the broad confidence interval for the category of graffiti on Arretine ware from the complex NIJM-CC (see fig. 7).
392 In this I am greatly indebted to M. Polak and S. Wynia.
vessels. Each vessel has been dated using the information available in *OCK* and *NoTS*. The dates of the stamped vessels with graffiti were compared to those of all stamped vessels from Vechten listed in *OCK* and *NoTS*, 6676 in total.

The listed total of stamps on terra sigillata vessels can be divided into three broad, subsequent categories: Arretine ware, South Gaulish terra sigillata and Central or East Gaulish terra sigillata. When considered on this level, 13.8 percent of the stamped Arretine vessels from Vechten carries a graffito, versus 11.6 percent of the stamped South Gaulish vessels and 11.8 percent of the stamped Central or East Gaulish vessels. Apparently, slightly more graffiti were scratched into the earlier Arretine ware than the later South Gaulish and Central or East Gaulish wares. If one were to generalize, one could say that an average of about 12 percent of the stamped terra sigillata vessels from Vechten has been inscribed.

A next step in the analysis was the refinement of the chronological framework, by calculating the numbers of stamps per five years. To illustrate this with an example, a stamp dating from AD 40-50 counts for 0.5 in the segments AD 40-45 and 45-50. After all the stamps had been processed in this way, the totals for each five-year segment were computed. The same procedure was applied separately to the vessels with graffiti, which rely for their dating on the corpus of stamps. When the distribution of the graffiti and the general distribution of the stamps on terra sigillata found at Vechten are plotted in a single graph, the line of the graffiti repeatedly cuts the line of all stamps (fig. 8).

Subsequently, the actually observed number of graffiti per five-year segment was compared with the expected number of graffiti for each segment. This expected number of graffiti is based on the assumption of a stable occurrence of graffiti over time. Since a rise or fall in graffiti numbers might be a mere reflection of an overall rise or fall in terra sigillata at Vechten, the chronological distribution of all terra sigillata stamps from Vechten was used to compute the expected

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393 These vessels are mainly part of the collections of the RMO (Leiden) and the PUG (Utrecht).
394 See the abbreviations and references, p. 351.
numbers of graffiti. The differences between the observed and the expected number of graffiti per five-year segment were then plotted (fig. 9).

Two main conclusions can now be drawn. Firstly, the deviation per time segment amounts to a maximum number of only **nine** graffiti. Considering the size of the sample (884 graffiti), this is an extremely low number. It may even be stated that this number is insignificant. Secondly, it may be noted that the observed number of graffiti was slightly lower than expected during the years AD 10-70, and slightly higher during the years AD 70-160. What is more important for this research, however, is that the graffiti on Arretine vessels were certainly not overrepresented.

It can thus be concluded that in the material from Vechten, graffiti are not represented more strongly on Arretine ware than they are on South Gaulish terra sigillata. This finding, which is contrary to the initial hypothesis, is supported by an estimate made for terra sigillata with graffiti found at Neuss. Using the readily available data, it was calculated how the graffiti on stamped Arretine vessels relate to the graffiti on stamped South Gaulish vessels, in number (absolute) and

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397 To decide whether the noted deviations are more than coincidental, the results of the analysis were tested for statistical significance through a chi-squared test. The test did not find a significant effect, which was expected in view of the computed low values of deviation.

398 The apparent small dip between AD 115-125 can be explained by a general decline in stamped terra sigillata, which in turn would have also influenced the distribution of the graffiti. With regard to the marked flipping points in time of AD 10 and 70, it must be noted that these may be related to preferred start and end dates of many terra sigillata stamps rather than to the relocation of soldiers. For instance, there is a large group of South Gaulish stamps which are broadly dated as pre-Flavian and are thus conveniently dated until AD 70.

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*Fig. 8 Overview of the chronological distribution of terra sigillata potters’ stamps and terra sigillata vessels with graffiti from Vechten.*
It turns out that both categories of graffiti do not differ much from each other: not only are they close in number, but – more importantly – also in ratio. It appears that at Neuss as well as at Vechten, graffiti are roughly as frequent on Arretine terra sigillata as on South Gaulish terra sigillata.

The scaled-up analysis has brought forward two important insights. Firstly, with respect to the assumed chronological distribution of graffiti, no significant pattern can be recognized among the enlarged dataset of graffiti on stamped terra sigillata from Vechten. A test of the analysed data leads to the conclusion that, in the terms of general statistics, there is no significant relation between graffiti occurrence and chronology. The deviations catching the eye when the data are plotted in a graph (fig. 9) are thus not a signal but noise, a suggestion at most.

This brings us to the second insight, which is on a more methodological level. The described analysis has made clear that a broadening of the view – in this case a chronological extension – and a substantial (quantitative) extension of the dataset can produce more refined results. And although the remarkably high

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399 These computations are based on Kütter’s study of graffiti on Roman pottery from Neuss (2008). The online database of the NoTS project (http://www.rgzm.de/samian/home/frames.htm) was used to estimate the total numbers of stamped vessels.

400 245 graffiti on stamped Arretine vessels were counted against 219 graffiti on stamped South Gaulish vessels. The percentages of stamped vessels with graffiti amount to 15.7 for the Arretine and 15.8 for the South Gaulish ware.
occurrence of graffiti in Haltern is still unexplained, further research of graffiti along these lines could hold the answer to this question.

V.1.b Military indications

Names of units

In some fortunate cases the names of military units are incorporated in graffiti scratched on objects. Due to space limitations, the names were usually abbreviated. It is likely that some of these shortened unit names remain unrecognized. Others may have been incorrectly or unjustly solved. Nevertheless, the graffiti from the Lower Rhine area name a few military units not mentioned in other written sources.

Recently it has been suggested that auxiliary soldiers were more in the habit of marking their possessions with graffiti than legionary soldiers.401 For the Lower Rhine, this supposed difference could not be verified securely, for several reasons. Firstly, almost every military site may have housed auxiliary soldiers during the 1st century. Not only are there more auxiliary than legionary forts known from this area, but even for principally legionary sites as Xanten-Vetera I and Nijmegen-Hunerberg it has been suggested that during the early stage of Roman presence in this region, auxiliary soldiers camped together with legionary soldiers.402 Secondly, it has been argued that not every legionary site was large enough to house a complete legion. This goes for instance for the Flavian fortress on the Hunerberg in Nijmegen.403 Some of the legionary soldiers will therefore have been stationed elsewhere. The presence of votive inscriptions dedicated by legionary soldiers at sites where there are no indications for contemporary legionary fortresses can be explained in this way.404 Since furthermore most graffiti merely record cognomina, even those recovered from legionary sites, it is not easy to distinguish legionary from auxiliary soldiers in these. Moreover, the legionary bases are as a rule larger in surface and in yield of objects. Hence, they have also produced more graffiti, considered in absolute numbers. These conditions together limit the possibility of comparing the frequency of marking possessions among the two categories of military men.

Infantry or cavalry

Some of the men marking their belongings made a reference to the subunit they served in by naming their commanding officer. Since infantry was divided into centuriae but cavalry into turmae, such references can hold clues about the nature of the troops once present at a site. A centuria was usually indicated by a chevron (>) or rather a retrograde C. Originally, a centuria consisted of 100 men, but the centuriae of the Imperial army held in practice 60 to 80 men, who were commanded by a centurio. A turma is the designation for a subdivision of a cavalry unit, under command of a decurio. Such a cavalry unit is usually an ala, belonging to the auxiliary forces, but can also be a cohors equitata. In those cases, a turma counted 30-32 troopers, with a standard ala consisting of 16 turmae. Initially, the legionary cavalry units were also divided into turmae, but in

401 See for this postulation Schmidt Heidenreich 2016, 483.
402 Cf. Von Schnurbein 2000, esp. 36-37.
404 E.g. a votive inscription by a centurio of legio I Minervia at Voorburg (CIL XIII 8809), by a miles of the same legio at Vechten (CIL XIII 8813), and by milites of legio XXX Ulpia Victrix at Remagen (CIL XIII 7789).
the Imperial period this changed into a division into centuriae. From then on, the designation turmae was only used for mounted auxiliary units, being the alae and the cohortes equitatae. The mounted archers (equites sagittarii) were probably also organized into turmae. In late Antiquity, the term turma was used generically for any cavalry unit.

In a study of the graffiti from Nida-Heddernheim Markus Scholz has ascertained that in contrast with the standardized abbreviation of an inverted C for a centuria, there appears to have been no single standard formulation to denote a turma. In inscriptions on stone we encounter various shortened forms, varying from turm(a) to (urma). However, a single T at the beginning of a graffito does not always stand for turma. It could also be the abbreviation for the praenomen Titus, especially at the beginning of a graffito. Scholz used statistics to determine whether the letter T appeared more often than other letters. As there is no compelling reason to suspect that the praenomen Titus was more popular than other praenomina, according to Scholz, an overrepresentation of the letter T would confirm its alternative use as an abbreviation for turma. After listing all the abbreviations on pottery that could be dated to Period I of Nida-Heddernheim (c. 74/75-110 AD), Scholz concluded that abbreviations starting with the letters T or S were clearly more frequent than others. The abbreviations starting with a S differ from those with a T in that those with a S appear all to have been written without interspacing, whereas in some of the T-abbreviations the T clearly stands apart from the rest. Contrastingly, in Periods II (c. 110-190 AD) and III (c. 190-260 AD) the letter T is considerably less frequent than the letters A, C respectively G, and M. The differences in frequency of the letter T can be explained by its use as more than just the abbreviation for the praenomen Titus: it will also have been used as abbreviation for turma. Scholz’ findings support the assumed presence of a cavalry unit at Hedderheim, the ala I Flavia Gemina, from the end of the 1st century AD until approximately AD 110. A single T at the beginning of a graffito may therefore be considered as the abbreviation for the term turma, and can thus be indicative for the presence of cavalry.

Remarkably, graffiti with a turma reference occur relatively often on the shoulders of smooth-walled flagons. This might just be a coincidence, but there could also be a practical reason. Scholz suggests that the larger writeable area on the shoulders of flagons might have invited to extend the graffiti by including military indications such as turma, or that the flagons possibly were used for something specific, of use to the whole turma. One could think of a medicine for horses, for instance. Indeed, from the research area of the Lower Rhine, several flagons are known that contain graffiti in which references to centuriae or turmae are made, but it cannot be stated that within this dataset graffiti with such military indications occur more often on flagons than on terra sigillata vessels.

In a study of graffiti found on sites in the Roman provinces of Germania superior, Raetia and Noricum, Pfahl calculated that owners’ marks of infantrymen dominate over those of cavalrymen. He attributes this difference to the overall larger number of infantrymen serving in the frontier zone. However, his calculations are based on a sample of only sixty graffiti recording a centuria or a turma, and the difference between the two categories is not statistically

405 Schumacher 2006.
406 Cf. Scholz 1999, 53, Liste 2. For the letter S, Scholz gives the praenomen Sextus as the most likely interpretation.
407 The letter A most likely stands for the praenomen Aulus, the C for the praenomen Caius/Gaius and the M for Marcus. Scholz 1999, 52-53.
408 Inscriptions attest to the presence of this ala at Nida-Heddernheim (CIL XIII 7365, 11948).
409 Scholz 1999, 52, n. 133.
significant. The issue of infantry versus cavalry becomes more complicated when Pfahl’s calculation is compared with a statement made by Christophe Schmidt Heidenreich. He concludes that, based on a limited amount of available data, not infantry but cavalry soldiers were more in the habit of marking their belongings, but further (statistical) details are not given. For both Pfahl’s and Schmidt Heidenreich’s analysis goes that their data do not allow for meaningful differences to emerge. It will be shown that references to infantry and cavalry in the graffiti from the Lower Rhine area are informative on the level of individual sites, but cannot resolve the issue of a general pattern. For this, a larger data set is needed.

Ranks

The inclusion of a military rank or title in a graffito can give us more information about the nature of the troops operating in the research area. Many ranks and titles used in the Roman army are generic, that is to say, they occur in all units ranging from legionary to auxiliary, and from infantry to cavalry. Horn-blowers and trumpeters, well represented among the graffiti from the Lower Rhine area, are examples of such common ranks. Other ranks are limited to certain units. Whereas for instance a centurio commanded an infantry subunit, a cavalry subunit received orders from a decurio. A more general term is eques, denoting a cavalryman. An eques is not per se a member of an auxiliary unit; he could also be serving in a legion. The fleet also had its own system of ranking, with considerable Greek influence.

It becomes more complicated with the standard-bearers: the standard-bearer of an infantry cohors is known as a signifer, but a cavalry unit could count a vexillarius among its ranks, who carried the flag or vexillum. However, vexillarius is also the designation used for a member of a detachment from an infantry or a cavalry unit. Since marking yourself as a vexillarius among fellow detached soldiers would not make much sense, the use of this term in a graffito rather suggests that the author wanted to distinguish himself from the regular horsemen of a cavalry unit. Similar conclusions can be drawn with respect to other designations that appear to be indistinctive at first sight, but must have derived their meaning from their context.

In sum, when military indications are included in graffiti, they can inform us about the nature of the troops present there, but not all indications are as straightforward or exclusive, and therefore not as informative to the research question at hand. Each case must be evaluated in relation to its context. It will become clear that for the graffiti from the Lower Rhine area, this results in indications occupying a broad spectrum ranging from a common horseman (eques) to a commanding officer of an ala (praefectus equitum).

V.1.c Personal names

To express ownership, personal names in the genitive case have predominantly been used in graffiti in the Roman world, but the use of a nominative instead is not rare. Most graffiti that display complete names – henceforth indicated as ‘name graffiti’ – consist of a single name. One may conclude that a single name sufficed as an identifier in these owners’ marks. Such a single name is

410 Of 60 graffiti, 37 refer to infantry (centuria) and 23 to cavalry (turma). Pfahl 2012, 73 (with a chronological range from 200 BC to AD 600).
411 Schmidt Heidenreich 2016, 519.
412 Feugère 2004, 60.
413 Cf. Scholz 1999, 73, n. 181.
in principle either a cognomen of a Roman citizen or the *nomen singulare* of a peregrinus. Peregrini are free provincial subjects of the Empire but they do not have full citizenship in the Roman world. They carried one name (nomen singulare), whereas Roman citizens were traditionally recognized by their tripartite name, the *tria nomina*. These tria nomina consisted in their ultimate form of a *praenomen*, a *nomen gentile* or *gentilicium*, and a *cognomen*. Since family members had in principle the same praenomina as well as gentilicia, different cognomina made them distinguishable from one another. Cognomina became only common in funerary, votive and other public inscriptions after circa AD 50. While this name gained in importance, the praenomen became less significant and was even generally omitted in inscriptions from the 2nd century and later. Accordingly, most graffiti that display duo nomina consisting of a praenomen and a gentilicium or full tria nomina are only found on earlier pieces. Although some names are known as both gentilicia and cognomina, or as both praenomina and cognomina, the fact that in these graffiti they are used on their own indicates that in these contexts they most likely are cognomina.

**Duo and tria nomina**

Sets of duo nomina, consisting of a gentilicium with either a praenomen or a cognomen, and sets of tria nomina constitute a minority among the names mentioned in graffiti. When they occur, they can provide useful information on different levels. First of all, as noted above, they make a reasonable case for the association with legionary soldiers serving, but this association is not exclusive. Secondly, the general distribution of the individual gentilicia and cognomina may show significant geographical concentrations, indicative of areas of origin of the soldiers who bore these names.

As a rule of thumb, men with Roman citizenship served in the legions, whereas men without Roman citizenship were not allowed to. The latter served in principle in the auxiliary units. However, that a military man carried tria nomina – the prerogative of a Roman citizen – does not automatically mean that he was a legionnaire. There are exceptions and subtle distinctions. For instance, commanders of auxiliary units were Roman citizens, as were many of the other officers. Furthermore, on occasion a complete auxiliary unit or an individual auxiliary soldier could receive citizenship as a reward for honourable conduct in battle. Roman citizens are also attested in early alae, without a clear indication for recently bestowed honours. To complicate matters, tria nomina were also borne by serving auxiliaries who were probably not yet full Roman citizens. These instances are especially known from areas in the East, in Africa and in Egypt. Denis Saddington is of the opinion that these names must be regarded as so-called military names, which would have been assigned to recruits on their enlistment to ease army communication. Therefore, the presence of duo or tria nomina in graffiti retrieved from a military site cannot on its own be considered as unequivocal evidence for the presence of legionary soldiers on that site.

Imperial gentilicia can also be used as chronological indicators. Often, but not necessarily, peregrine soldiers who were enfranchised took on the praenomen and gentilicium of the bestowing emperor and added to that a cognomen. An example of this practice is mirrored in the epitaph set up for Tiberius Claudius

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414 See e.g. Salomies 2001, 83-84.
416 See e.g. Haynes 2013, 63, 101, referring amongst others to the well-known example of an Egyptian-born navy soldier, Apion, who writes his father about his new name being Antonius Maximus (BGU 423).
417 Saddington 2000, 172, 175.
Severus, son of Icepnus, who was a veteran (missicius) cavalryman of the *ala I Hispanorum*. As this cavalry unit is known to have been stationed from AD 50 to 70 at Budapest, where the monument was discovered, Tib. Claudius Severus himself must have been enfranchised by the emperor Claudius or Nero. However, the grave monument of Marcus Traianius (sic) Gumattius, veteran of the *ala Afrorum*, shows that auxiliary soldiers who received citizenship and hence the tria nomina upon discharge did not always take on the praenomen and gentilicium of the emperor. The decorative style of the monument does support a Trajanic or even later date, but instead of the gentilicium Ulpius the veteran bears the family name Traianius, which may be classified as a pseudogentilicium.

The gentilicium Iulius is one of the most popular imperial gentilicia known from the provinces. It is also frequently encountered among the graffiti from the Lower Rhineland. The high number of Iulii in Germania inferior is explained by Géza Alföldy through a mass enfranchisement during Augustus’ reign. Andreas Kakoschke opposes this explanation by referring to Suetonius, who writes that Augustus was very sparing in granting Roman civil rights. In her study of the graffiti from Haltern, Galsterer noted that especially among the commanders of the early, so-called ‘national’ auxiliary units the gentilicium Iulius was common. This is in marked contrast to the very low occurrence of that same imperial gentilicium among the new citizens serving in the legions until the reign of Caligula, according to Galsterer. It may therefore be considered likely that graffiti found in Germania inferior, containing the gentilicium Iulius and dating from the 1st century AD, relate to new citizens.

Men bearing the duo nomina C. Iulius and present at military sites during the 1st century were probably auxiliary soldiers. They would have received their names not from their fathers, but rather indirectly, through their mothers. This is suggested by Barbara Pferdehirt, who has tried to find an explanation for the presence of men with duo and tria nomina and even filiation but without the indication of a tribus in the military diplomas given to auxiliary soldiers. These men can, in her opinion, not be regarded as full Roman citizens. Instead, they might well have been sons of freedwomen and their former masters, who were Roman citizens. Their children had inherited their fathers’ gentilicium through their mothers, because the women had taken on the same gentilicium after they had been manumitted by these men. The fathers may have been auxiliary veterans, but not necessarily.

An important point stressed by Pferdehirt is that she sees strong reasons to assume that practically no men with full Roman citizenship enrolled in the auxilia. This counters the more general view, as voiced by Haynes, that an increasing number of men in possession of Roman citizenship joined the

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419 *RHP* 124 (Budapest).
420 *CIL* XIII 8806. Since the style of the monument allows it to be dated as late as Hadrianic, it is also possible that not Gumattius but his father, Gaiso, already took on the peculiar gentilicium upon retirement from the Roman army.
422 Alföldy 1967, 24-25.
424 Galsterer 1983, 25. Galsterer (*ibidem*, n. 117) also refers to a study by Ritterling, who apparently has found that a group of veteran but still serving soldiers from the *cohortes Montanorum* bore the praenomen Tiberius and the gentilicium Iulius. As their years of service all exceed the later standard of twenty-five, it seems most probable that they had already been enfranchised by that time as a reward for their service. Thanks to the praenomen and the gentilicum, we can date this enfranchisement to the reign of emperor Tiberius.
426 Pferdehirt 2002, 154-167, esp. 166.
auxiliary alae and cohortes. Pferdehirt’s argument that the lack of tribus indication negates that auxiliary soldiers with gentilica held Roman citizenship is softened by Saddington. He concluded that there were more forces at work in the processes of naming among auxiliaries. These forces include social customs in different areas, varying practices at recruitment, differences in status between ranks, and also personal choices. Auxiliary soldiers with only the tria nomina should therefore not categorically be denied Roman citizenship.

There is a specific group of auxiliary units that explicitly counted citizens instead of non-citizens among its ranks, and especially citizens bearing the gentilicium Iulius. These are the cohortes Voluntariorum, which are assumed to have been drawn up from freedmen and purposely freed slaves to constitute new military units in times of crisis. Some of these were raised during Augustus’ reign. The slaves freed at that time to be enlisted in these units would most probably have received the duo nomina C. Iulius, although a search on the combination of the gentilicium Iulius and members of cohortes Voluntariorum in the (online) epigraphical databases hardly gives any results. Graffiti referring to C. Iulii could thus, theoretically, refer to a member of cohortes Voluntariorum. If, however, the unit counted multiple men bearing the names C. Iulius among its ranks, it would probably be not very effective to mark one’s possessions with such a common combination of names. Such a graffito would not be distinctive enough. If there are nevertheless multiple graffiti containing C. Iulius or just Iulius present at a site, it may be inferred that the environment counted no or hardly any other men known by the same name. This consideration makes soldiers serving in cohortes Voluntariorum or recently promoted auxiliary units (with the titles civium Romanorum) less likely candidates as the authors of these graffiti, for they would have had too many colleagues bearing the same names. The authors are probably better sought among individual soldiers serving in other generic auxiliary units.

**Cognomina or nomina singularia**

As indicated above, most name graffiti consist of cognomina or nomina singularia, i.e. single names. The largest group are common Latin cognomina. These Latin names are not per se the names of men born and raised in the Latin-speaking, Mediterranean heartland of the Empire. It appears that native names of peregrine recruits were Latinized, especially when they were difficult to pronounce for the Roman authorities. As difficulties in pronouncing the names could also have a negative effect on the clarity of commands on the battlefield, many ethnic names were probably changed into more familiar sounding names. It is highly likely that especially popular Latin names with positive or desirable meanings such as Felix and Victor represent such ‘substitute names’. The same goes for an equally large group of names that refer to specific physical features as Rufus, ‘the red-headed’, and a smaller group of names that refer to origin, such as Hispanus. We may assume that these names in particular were chosen for new recruits, to replace their difficult to pronounce native names.

Nevertheless, many men will have retained their original name on enlistment in the Roman army. Epigraphical data shows that there was a strong tendency

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427 Haynes 2013, 63, 101. Haynes refers to Kraft (1951, 80-81) and Le Bohec (1994, 98), whereby Le Bohec based his generalised argument about the increasing number of citizens joining the auxilia on the data provided by Kraft in 1951. Although the data set has largely increased over the past decades, it cannot be denied that apparent Roman citizens are recorded as auxiliary soldiers in active service.

428 Saddington 2000, esp. 176.

429 See the section on auxiliary recruitment in chapter IV, p. 55.


for veteran auxiliaries in the early Imperial period to keep their original native name as a cognomen, or to give their offspring non-Latin cognomina. Sommer argues that in an environment made up by various and rivalling traditions, the different options that parents had for naming their children had a strong significance that went far beyond the esthetical. A strong adherence to native onomastics signals that the mentioned veteran auxiliaries intentionally maintained a link with their ethnic background, as part of their identity. Increasingly, however, those new citizens chose a Latin cognomen for themselves and for their children. In short, we may expect for the analysis of the 1st-century graffiti from the Lower Rhine area that a considerable number of names are Latin in origin but that the people who bore these names may well have had a different geographical background.

As mentioned earlier, cognomina are considered to have come into popular use in monumental inscriptions after around AD 50. The graffiti seem to show a different picture, for cognomina are already encountered in relatively great numbers in graffiti collected at Haltern. Galsterer’s study of the graffiti from the Augustan fortifications at Haltern suggests that at least a third and perhaps even half of these inscribed marks consists of a cognomen or at least a single name. If indeed auxiliary soldiers were more inclined to mark their belongings than their legionary counterparts, as put forward by Schmidt Heidenreich, then this difference could explain the surprisingly high occurrence of cognomina at Haltern. Following this line of thought, the perceived cognomina at Haltern are more likely to be single names which belonged to auxiliary soldiers than cognomina of legionary soldiers. This would mean that a large number of the vessels with graffiti from Haltern belonged to auxiliary soldiers implying that they constituted part of the garrison. Data from other legionary sites needs to be compared, to ascertain whether cognomina are equally strongly represented in early graffiti there. But one must bear in mind for these sites as well that they were probably garrisoned by a mix of legionary and auxiliary soldiers, and that it is difficult to separate the data pertaining exclusively to the legionary components from the data relating to the auxiliary.

The name graffiti from Neuss and Vechten analysed for this study show that on the early Arretine ware, single names are better attested than combinations with a gentillicium. Bonn has unfortunately produced too small a number of relevant data for a valid comparison. Contrastingly, duo and tria nomina dominate over single names in the early material from Vetera I, but the sample is very small: ten occurrences of (possible) duo nomina versus two cognomina or single names. More data is needed to test the hypothesis of auxiliary dominance in graffiti. Nevertheless, the observed trends in the collected data suggest that cognomina were the most frequently used identifier in graffiti through time. They appear in graffiti before they are a major element of names in monumental inscriptions.

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433 On basis of the onomatric evidence from the Middle Euphrates (1st to 3rd century AD) Sommer concludes that the Roman army and the affiliated veterans considered themselves here as the avant-garde of so-called Romanness and as representatives of the Empire at its far-off posts. It can additionally be argued that they were regarded as such by the local population. This view is supported by the observed tendency of soldiers and veterans to write down their distinctive Roman tria nomina, whereas the local population held on to their traditional Greek or local names, even after the Edict of Caracalla in AD 212. Sommer 2004, 169, 174-175.
436 See n. 411.
Apparently, using only a cognomen in an owner’s mark sufficed in the situations at hand.

*Names with a geographical focus*

Many personal names encountered in the graffiti display clear geographical concentrations. The largest group consists of Latin names with a geographical focus in the Mediterranean heartland of the Empire. A considerable number of these names can be classified as Italic. Most likely they were borne by people from Italy as well as the early incorporated regions bordering the Mediterranean Sea outside of Italy. Some of the Latin names, however, concentrate in other regions of the Empire. András Mócsy ascertained that a small number of names are more than averagely attested in one province. Among these names, a group of names especially popular in Hispania stands out. The Iberian Peninsula was an important recruiting ground for the Roman army. Many men from the early incorporated southern and eastern parts of the peninsula enlisted as legionary soldiers. Furthermore, a large number of auxiliary units has been raised here, especially in the northwestern part of the peninsula.

Next to the Latin names Celtic names appear frequently in the material. These can be divided into subgroups covering predominantly the British Isles, the western part of the Iberian Peninsula, the Gaulish territories, the Alpine regions, and the areas bordering the Upper and Middle Danube. The Celtic regions were fertile recruiting grounds for the auxilia. The Roman army incorporated for instance many Gaulish auxiliary units, of which especially the cavalry was renowned. The Pannonian tribes living east of the Alps belong to the main suppliers of auxiliary soldiers during the 1st and 2nd centuries AD, according to the diploma and inscriptive evidence.

From the lands bordering the Celtic territory, in what are now parts of modern-day Greece, Bulgaria and Turkey, originate the Thracian names. They are a separate group with an Indo-European basis, clearly distinguishable from the more common single names and cognomina that constitute the backbone of Roman onomastics. Equally distinctly different from the regular Roman names are Germanic names, which are also encountered in graffiti collected on Roman sites. Both Thracian and Germanic names in a 1st century context may well be linked with native men recruited into the auxiliary units of the Roman army. Already before the creation of the Germanic and Thracian provinces, people living in these regions provided auxiliary troops by treaty. Joining the legions was probably out of reach for most of the Germanic and Thracian men until well in the 1st century AD. The lack of Germanic and Thracian names among the graffiti collected at sites of attested legionary fortresses may confirm this.

A final clearly recognisable group consists of names that are originally Greek. Regarding Greek names, Stephan Weiß-König warns for a too readily equation of Greek names with people of Greek origin. In references to statements by Alföldy and Solin, he underlines that people carrying Greek names do not definitively

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438  Roxan (1973, 562) and Meyer (2013, 116) estimate that about twenty percent of all the auxiliary units of the Roman Imperial army were raised in the Iberian Peninsula.
439  See n. 340.
440  Cf. Callies 1964, 142-154 (Germanic tribes), 155-156 (Thracians), and also Haynes 2013, 97 (Thracy), 112-116 (Batavians).
originate from the Hellenophone eastern parts of the Empire. Not only slaves but also freed persons from other parts of the Empire went by Greek names.441 Considering a potential reference to slaves and especially former slaves, Greek names found on military sites might signal the presence of first-generation members of a cohors Voluntariorum. As described earlier, such cohorts made up of ‘volunteers’ had been raised in the years of military crises among presumably veterans and purposely freed slaves.442 These freed slaves might be visible through some of the Greek names found inscribed on pottery from sites along the Lower Rhine. Furthermore, it must be considered that these Greek names could also have belonged to actual slaves and freedmen in the service of officers’ familiae or other well-off members of the army. Although slaves are poorly visible in the epigraphical record, the presence of freedmen and freedwomen on the Lower Rhine limes is certainly attested through monumental inscriptions.443 Moreover, it is thought that slaves themselves continually joined the lower ranks of the Roman army, even though the admission of slaves was strictly forbidden.444 The actual number of soldiers with a servile status can unfortunately not be substantiated.

Notwithstanding the at least theoretical associations with slaves and freedmen, Greek names show a notable concentration in certain army contexts. Analysis of the recruitment patterns of the Roman navy has shown that the province of Egypt and Alexandria together provided no less than 23% of the sailors in the Imperial fleet. It appears that especially the navy incorporated men from the Hellenophone parts of the Empire.445

More distinctive than these cognomina with apparent concentrations in certain geographical areas, are the names that are in origin themselves geographical designations. Names such as Marsacus, Hispanus and Treverus, to list a few examples from the dataset at hand, clearly point to a specific region. They may not per se indicate that the owner of the vessel with the graffito in question was born in this region, but at least the author of the graffito has an explicit association with this region, mirrored through the graffito text.

These names with geographical foci conclude the general remarks and introductory analyses. In the preceding paragraphs a framework has been built for the main section on graffiti, in which 1st-century graffiti from the Lower Rhine area will be discussed per site. This framework consists of analyses on multiple levels. On a general level, it has become clear that graffiti occur with a fairly stable frequency through time. There is not enough reason to assume that graffiti were applied more often in the highly mobile Augustan period than later on. Certain object types carry more often graffiti than others: the majority consists of undecorated terra sigillata vessels. On a more detailed level, graffiti can inform us about the nature of the military troops that were stationed on the sites under investigation. In some fortunate cases names of units are included. More often, the provided information concerns general references to general centuriae or turmae as subunits. Sporadically, specific ranks within one of those
two categories are mentioned. Finally, proper names of individuals may also hold clues about the identity of the men operating with the Roman army along the Lower Rhine. The use of duo and tria nomina suggests the presence of Roman citizens, who in principle served with the legions or as higher officers in the auxilia. These multipart names are, however, in number subordinate to the cognomina or single names, which are the most frequent types of names in the researched graffiti. They may be linked with non-citizens, but it is also possible that legionary soldiers used to mark their belongings. Some proper names also point to specific geographical regions of origin.

V.2 Discussion of the relevant graffiti per site

In the following, graffiti on objects that can be dated to the 1st century AD will be discussed per findspot, moving from Remagen in the southeast to Velsen in the west and finishing with a section on stray and river finds with a military association. If a later date than the 1st century seemed more likely, the graffiti were not further considered. Some military sites with known or presumed 1st-century activity, such as Krefeld-Gellep or Kesteren, do not appear in this list, because of a lack of graffiti from that period. In the case of unpublished finds, the items will be discussed in more detail. Otherwise the description of the graffiti is limited to what is needed for elucidating the main research questions. For name statistics, the inventory of OPEL and the study by Kakoschke of names in Germania inferior serve as the main sources; when no further reference is mentioned, implicit reference is made to these works.

When the absolute data showed high frequencies for individual names in specific provinces, this data was compared with the general distribution to ascertain whether these high frequencies might be related to a general increase in inscriptions. If for instance a name is attested 75 times in a province yielding more than 10% of the total number of documented inscriptions, this has less effect than 75 attestations of this name in a province yielding only 2% of all inscriptions. As a starting point for this relative data check, Mócsy’s comprehensive analysis of names in Latin inscriptions from various parts of the Empire was used.

Since his analysis was published over 30 years ago, it is relevant to be aware of the increase in known (and published) inscriptions and especially of possible changes in relative patterns, such as geographical concentrations of certain names. A name with a concentration on the Iberian Peninsula could in theory be levelled out against other names attested in the same region because new discoveries of epigraphic data are now included. A comparison between the data available to Mócsy et al. and the data available through the online database of EDCS (in March 2012) shows that for all the provinces the number of inscriptions has increased (table 12). The increase factor ranges from 1.7 to 3.7 with an average of 2.5. The highest factor is found for the Hispanic provinces, followed by Dacia and Britannia. The number of inscriptions from these provinces has increased significantly more than expected, based on the

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446 This applies especially to the various metal owner’s plates in the shape of a tabula ansata that have been found throughout the research area. Almost as a rule, context could not provide a secure dating, and this certainly goes for typology of the plates. Based on the findings of Pfahl (2012, 73), it is assumed that these plates mainly date from the 2nd century and later.


448 Mócsy 1985.

449 Mócsy et al. 1983, iv.

450 Beltrán Lloris 2015, 138-139, table 8.2.
distribution mapped out by Mócsy. An increase significantly less than expected is found for the inscriptions from Dalmatia.451

From the comparison of numbers of inscriptions follows that some provinces have yielded considerably more inscriptions, and this could influence the number of attestations of specific names in various ways. Especially the high rate for the Hispanic provinces could have consequences for this research, because the Iberian Peninsula was an important supplier of recruits for the Roman army already in the early 1st century AD. The situation is different for the provinces of Dacia and Britannia. The first Britons were recruited into nominally British auxiliary units in AD 59-61,452 and ethnic recruited Dacian auxiliary units are not known from the 1st century AD at all.453 As a result from this investigation, names that have the connotation ‘Hispanic’ in Mócsy’s analysis require extra attention.

Remagen

Only eleven graffiti from Remagen have been published so far.454 These were all applied on terra sigillata vessels. Two graffiti reveal names, the other nine only less informative sequences of letters and lines. One of the names is positioned on the outer wall of a mortarium Dragendorff 45, which postdates the 1st century and is therefore not relevant to the research in question. The other name, however, can be dated to the early 1st century AD, for it is placed on a cup Conspectus 22.455 The graffito reads c mani[---], with ma and ni in ligature. It may be interpreted as the owner’s mark of a person with Roman citizenship.

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451 The average multiplication factor is 2.5 with a standard deviation of 0.7. This results in a significance range (by 1σ) of 1.8-3.1.
452 Ivleva 2012, 142.
454 Friedrich 2010, esp. 136-137.
455 Find no KI-36-SF-20.
Taking the early date of the vessel into account, the graffito suggests that there were legionnaires present at Remagen during the Augusto-Tiberian period.

Bonn

Lothar Bakker and Brigitte Galsterer-Kröll have published a large collection of graffiti found at Bonn.456 The following is primarily based on their inventory. Twenty-two of the graffiti on (roughly) 1st century pottery vessels found at Bonn can be classified as name graffiti. The most elaborate one occurs on the base of a terra sigillata cup dated to AD 40-80 and reads mar .ivl.) coh sil. This may be transcribed as Marci Iulii centurionis cohortis Silaucensium.457 The graffito attests the presence of at least one member of the cohors Silaucensium in Bonn, somewhere between AD 40 and 80. The presence of the cohors Silaucensium, or rather Seleucensium, in the Rhineland is further attested by a gravestone found at Moers-Asberg. It is assumed that the cohors was stationed at Asciburgium during the first half of the 1st century AD before it came to Bonn during the reign of Claudius or Nero.458 Strikingly, this graffito is also the only one from Bonn that includes any military indication.

The centurio mentioned in the graffito above carries the gentilicium Iulius, a very common gentilicium which occurs a second time among the graffiti of Bonn. In that case, the accompanying praenomen is not Marcus but Caius.459 The vessel in question can be dated to the Flavian period, whereas the other vessels with duo nomina appear to be earlier. Two out of nine vessels with duo nomina are Arretine products; the other seven are younger. Among the twenty-two name graffiti, the following gentilicia have been identified: Appius, Coelius, Iulius (2x), Iuninius, Manilius, Munatius, Nigidius (2x), Valerius (3x) and Veianius.460 Apart from the further unattested Iuninius,461 these gentilicia are all Italic in origin. Iulius and Valerius are very common and widespread; Appius, Coelius, Manilius, Munatius and Nigidius are considerably less frequent. Veianius is a rather rare gentilicium, indicating that the author of the graffito is of Italic origin.462 The two graffiti mentioning Nigidius are very similar, in text and in shape. The date range of the vessels partly overlaps, which supports the idea that both graffiti refer to the same person.

In addition to these gentilicia, eleven cognomina are named. Iucundus, Iustus, Marcellus, Proculus and Sabinus are common and widespread.463 Marinus is less common.464 Amabilis and Pusillus are not very frequent either; they occur especially in Celtic regions, notably in northern Italy.465 The names Feminus and

456 Bakker & Galsterer-Kröll 1975. The number of vessels with graffiti amounts to 197, all in the collection of the RLMB.
457 Inv.no 14515. Bakker and Galsterer-Kröll (1975, GNr. 155) have written the names of the owner in the nominative case. On the outer wall of the same cup the remnants of another graffito have been preserved, but these cannot be interpreted clearly. It is possible that the graffito on the wall contained the name of the actual owner of the cup, whereas the graffito on the base might indicate the unit and subunit he belonged to.
458 Alföldy 1968, 69.
459 Inv.no 14524. The gentilicium Iulius is here fully written out in the nominative case.
460 Appius: inv.no 19948b; Coelius: WhFNr.49; Iulius: inv.nos 14524 and 14515; Iuninius: inv.no U2294; Manilius: inv.no14512; Munatius: inv.no14513; Nigidius: inv.nos 16429 and 21754; Valerius: inv.nos 15850, 16745 and 19962a; Veianius: inv.no 40,359a.
461 Kakoschke (2006, GN 626) classifies this name as a so-called pseudogentilicum with a local (native) origin.
462 Kakoschke 2006, GN 1372, no 1.
463 Iucundus: inv.no 17059; Iustus: inv.no 14537; Marcellus: inv.no 14354; Proculus: inv.no U2297; Sabinus: inv.no 16745.
464 Inv.no 13574.
465 Amabilis: inv.no 14505; Pusillus: inv.no 15711.
Vossillus are extremely rare.\textsuperscript{466} Vossillus is only once attested, in an inscription on stone from Gallia Narbonensis, and appears to be based on a Celtic root \textsuperscript{*}voss-;\textsuperscript{467} Feminus is not otherwise known.

Three remaining graffiti appear to be of a different category than the discussed name graffiti. A graffiti that contains the combination \textit{mor}ia[---] might express ownership,\textsuperscript{468} referring to a person with a – rare – name starting with Mores-, possibly Moresata,\textsuperscript{469} but it is perhaps more likely that \textit{moris} stands for the plural of the Latin word \textit{mos}, meaning ‘manners’. Two pieces of terra sigillata show graffiti that are possibly not written in Latin: one may contain the Greek letters \textit{ρ} and \textit{υι} instead of \textit{p} and \textit{vi},\textsuperscript{470} the other carries graffiti that are illegible as Latin texts,\textsuperscript{471} but may have been written in a different alphabet.\textsuperscript{472} Apart from these possibly non-Latin elements, there are no names or designations among the graffiti from Bonn with a clear foreign, non-Roman signature.

\textit{Cologne-Alteburg}

The terra sigillata found in 1998 at the site of the fleet station on the Alteburg in Cologne includes 102 vessels with graffiti.\textsuperscript{473} Only eight can be classified as names; the remainder consists of single letters or more simple carvings. Strikingly, central and eastern Gaulish terra sigillata are better represented than one would expect on the basis of all terra sigillata fragments. Contrastingly, the retrieved fragments of Arretine terra sigillata do not show any graffiti. Of the eight name graffiti, two contain completely written out names.\textsuperscript{474} They can be attributed to phase 6b of the fleet station, dated roughly AD 105/110-120/125. The first graffiti reads \textit{amian}.\textsuperscript{475} \textit{Am(m)ianus} is a rare name, pointing to the Gallo-German provinces. The second graffiti, reading \textit{vlpiviiri}, contains not only a cognomen but also a gentilicium, namely Ulpius and Verus. Both names are very common, but they reveal that the author was a Roman citizen who received citizenship from the emperor Trajan, judging from the gentilicium Ulpius.\textsuperscript{476} The finds provide no evidence supporting the assumption that

\begin{footnotes}
\item\textsuperscript{466} Feminus: inv.no 19898; Vossillus: inv.no 16435.
\item\textsuperscript{467} \textit{CIL} XII 4206. For the name Vossillus, see also Atkinson 1941, 18, n. 1 with reference to Holder 1896-1913.
\item\textsuperscript{468} Inv.no 14506.
\item\textsuperscript{469} Cf. \textit{AE} 1996, 1186d2.
\item\textsuperscript{470} Inv.no 16454.
\item\textsuperscript{471} Inv.no 50,648 g.
\item\textsuperscript{472} Compare the graffiti in Aramaic writing from Krefeld-Gellep, see n. 80.
\item\textsuperscript{473} Düerkop & Eschbaumer 2007, esp. 219-224.
\item\textsuperscript{474} I.e. \textit{af}[- -] (cat.no 66.75); \textit{avia} (cat.no 150.12); \textit{vic/van} (cat.no 840.2); \textit{s.a}[- -] (cat.no 868.6); \textit{mac}[- -] (cat.no 1198.2); \textit{[- -a?]tr} (cat.no 1336.1).
\item\textsuperscript{475} The graffiti is placed on a terra sigillata dish Dragendorff 36 (cat.no 840.15) without a stamp.
\item\textsuperscript{476} The dish in question (cat.no 0.36) was stamped by Severus iii. Considering the production date of the dish, the owner must have had it in his possession for some time before he would have taken on the imperial gentilicium. \textit{NoTS}: Severus iii, (La Graufesenque), date: AD 65-95.
\end{footnotes}
many men serving in the fleet during the early Roman period had an Eastern background.477

Dormagen

In the report of the excavations during the years 1963-1977 a total of 86 graffiti and markings recovered from the fort area have been published.478 At least two of the graffiti show a singular τ at the beginning, which probably indicates the presence of a cavalry unit on site. However, the fragments of terra sigillata in question are difficult to date. In fact, only few graffiti can be dated to the 1st century at all, and only one of these few is of interest in this context. This graffito is placed on the outer wall of a dish Dragendorff 18.479 The graffito can be read as M atiii, which is transcribed as M(arci) Atei, although the last i is somewhat uncertain. The gentilicum Ateius is Italic, and points in southern direction. It is very likely that this Marcus Ateius was a legionary soldier with an origin in the Mediterranean heartland of the Empire. Since there are indications that a vexillatio of a legio I – which by then may be completed with the title Germanica – exploited a tilery at Dormagen,480 it is well possible that Marcus Ateius was as a member of legio I Germanica stationed at Dormagen in the Julio-Claudian period.

Neuss

In 2008 Jochen Kütter published a catalogue of 964 graffiti and dipinti found at different locations in and around Neuss. In the context of a further analysis, an overview of graffiti containing military indications and names with certain geographical concentrations or connections is presented. Graffiti datable to the 1st century AD can be selected from this. Military ranks appear to be lacking, but references to units or subunits are present in the material from the 1st century. Most interesting is a graffito that is supposed to mention a military unit by name. It is placed on the base of an Arretine dish and can be read as LEG V AVXI.481 Please note that the last part does not appear to be an abbreviation of the Fifth Legion’s cognomen Alaudae. Since marking a piece of pottery as the property of a legion as such would not be very practical, it is very uncommon that a graffito on pottery mentions a unit without a particular owner or user, be it an individual or a small group. Perhaps the last part reading AVXI served that purpose, but it is not clear in what

477 Multiple punched lines on a small small bronze casing reportedly found within the walls of the fort on the Alteburg are considered to refer to a member of the 1st century garrison of the Flottenlager, because the graffiti contain tria nomina. This tripartite name is constituted by the extremely rare Italic gentilicum Nellius and the more common, probably Celtic cognomen Masclus. The Italic connection could be an indication for an early date, in the 1st century AD, but seen from a different point of view, it could at the same time weaken the argument for a connection with the fleet, for it is assumed that non-citizens were the core of the classis Germanica at that time. Unfortunately, the object is now lost, but a detailed drawing has been preserved. Since the casing could not be securely dated, it is further ignored in this study. See Hanel 2015.
479 Inv.no 75-80.
480 Gechter 2006, 265. The exploitation of the tilery is the earliest Roman activity attested in Dormagen.
Unfortunately, the piece is lost, so it cannot be checked for any possible extension of the graffito.

Apart from the tentative legionary reference, several graffiti are presented by Küttner as possible references to cohortes and alae. He lists five graffiti datable to the 1st century AD that might refer to cohortes, but in all cases these interpretations are highly debateable. None of the supposed abbreviations are clearly written as coh or similar, and proper names, of centuriones or owners, are not directly recognisable as such. A graffito referring to an ala can be found on a wall fragment of an amphora which is dated to the second half of the 1st century AD. The preserved sequence [---]t ala [---], with a stroke above the t, may refer to an ala, be it not necessarily the first. Although one would expect the numeral to follow and not precede the generic indication ala, this partly preserved graffito may be taken as evidence for the presence of members of a cavalry wing at Neuss. Furthermore, as this indication seems to be preserved for auxiliary and not legionary, this graffito can be regarded as evidence for auxiliary cavalry.

Eight graffiti from the 1st century AD are classified as possibly referring to turmae. However, none of these are definitively convincing, for they only contain abbreviations and lack clearly recognisable proper names which one would expect as reference to the respective commanding decuriones of the supposed turmae. Centuriae appear to be mentioned, through the use of centuria signs, in five graffiti on 1st-century vessels. The names included in these graffiti are the very common Latin cognomen Valens, the less common cognomen Titus and gentilicium Atilius and the rare cognomen Matrinus or gentilicium Matrinus.

In Küttner’s two lists of duo nomina, tria nomina and abbreviations of such multipart names, only five gentilicia on 1st-century pottery vessels are written out to such an extent that they can be reconstructed with some certainty. These names are Fomun(e)ius (attested three times), Fufius, Licinius, Iulius (attested twice) and possibly Flavius. Iulius, Flavius and Licinius are very common gentilicia with anItalic origin. Fufius is a more rare Italic gentilicium, pointing to the Mediterranean heartland of the Empire. Fufius and Licinius are accompanied by only a praenomen. The combinations in the graffiti in which Iulius and Flavius feature are not clear. The name Fomun(e)ius, for which no parallels could be found, appears in three graffiti, in three different combinations. The graffiti probably refer to a member or members of the same family. In the first graffito, it seems to be accompanied by only the abbreviated praenomen. In the second graffito, the gentilicium is followed by max. In the third graffito,

482 Küttner suggest the interpretation auxiliarium for anxii, but this remains too general and does not solve the issue of practical use. OPEL lists one attestation of Auxilius as a cognomen (CIL XIII 2287) and one attestation of Auxiliarius as a cognomen (CIL V 1943). Both names appear to be unique.
483 Küttner 2008, 67, cat.no 918.
484 Küttner 2008, 67, cat.no 24, 64, 87, 110, 127, 455, 673 and 711.
485 Küttner 2008, 67, cat.no 273, 404, 485 and 626. cat.no 591 is here excluded. Please note that in three of these four cases the sign is inverted and thus might rather be interpreted as a C. Additionally, I would also add cat.no 367 to this list. Although Küttner transcribed the graffito as d fla v ivli bovdi, the text is probably better understood as > fla v ivli bovdi. It is not certain whether the sequence ivli belongs as a cognomen to the centurio or as a gentilicium to the subordinate miles.
487 The vessels can be dated to AD 45-70 (NoTS: Bassus ii, La Graufesenque; Küttner 2008, cat.no 285) and 10 BC-AD 10 (cat.no 613), respectively.
488 These two gentilicia appear in one graffito, namely > fla v ivli bovdi: Küttner 2008, cat.no 367. See n. 485. The other graffito that includes the gentilicium Iulius ends with what appears to be a singular a, and is accompanied by another graffito on the same vessel, showing a singular o. q // ivli a: Küttner 2008, cat.no 2.
the cognomen is written out as MAXIMNI and followed by ANTISTI. Antistes is a term used to denote a priest, and as a rank or title it would fit at the end of the text. However, it would mean that the title is written in the dative whereas the tria nomina are written in the genitive. Another possibility is that Antistes stands for another cognomen, especially Antistianus, but this would be rather redundant. If the author of these graffiti was indeed a priest, then he is more likely to have been a civilian than a military man.

Some of the names occurring in the graffiti have clear geographical connotations or connections. Names from the Greek-speaking parts are Alexi(u)s, Anteros, Anthemis, Antiochus (attested four times) and Diomedes. All but one are inscribed on Arretine terra sigillata. Küttner suggests that these men may be part of detachments of the military fleet stationed at Cologne-Alteburg. As Celtic names can be classified Aetus, Alsos, Amhirenus, Ammius/-a, Aval, Boudius (attested twice, possibly referring to the same person), -brig-, Caratus/-a, Cintius, Garacco, Iduvius, Nonnos, Sanus and Vaxtullus/-a. They are attested throughout the 1st century AD. Possibly Latinised but Germanic in origin is the name Friattius, which is found on a dish from the second or third decade of the 1st century AD. Another conspicuous group consists of names with a strong concentration on the Iberian Peninsula: Albinus, Allius, (H)Ispanus, Licinius, Manlius, Mau(rus), Nisus, Vegetus and Vitulus. Küttner writes that these names seem to have a chronological focus at the start of the Roman presence in Neuss. Geographically, these names apparently concentrate at the site of the Sels‘che Ringofen-Ziegelei, about 500 m west of the later and better-known Koenenlager. According to Küttner, this could tie in with a presumed influx of Spanish troops shortly after AD 9 and after AD 69/70, but it is unclear how the early attestations from the site of the pre-Claudian camps are to be connected with an influx of Spanish troops after the Batavian Revolt. Furthermore, the analysis of coins from Neuss, supported by epigraphical sources, has shown that in the Tiberian period soldiers from Spain were garrisoned at Neuss. A unit mentioned in contemporary inscriptions is a cohors Lusitanorum, assumed to be the cohors III Lusitanorum. The men who had included the just mentioned Spanish names in the graffiti, may well have belonged to this pre-Claudian garrison.

Küttner points out that especially names pointing to the Mediterranean heartland are well represented at Neuss. He includes here the cognomina and gentilicia with a Hispanic signature, discussed above. The widespread Latin cognomina which are at least thirteen times attested in the graffiti from Neuss may well belong to legionary soldiers. The small number of duo and tria nomina on

489 Resp. Küttner 2008, cat.no 154 (OCK 2166, A. Titius (3), Arrezo/Po Valley, c. 30-10 BC), 641 (NoTS: Cantus, La Graufesenque, die 2h, c. AD 25-55) and 642 (OCK 2000, Suaves, Pisa, c. 10 BC-AD 10). Note that the third graffito predates the middle of the 1st century AD but already seems to include a cognomen. See the section on cognomina or nomina singularia, p. 105-107.


491 Küttner 2008, 68, cat.nos 21a, 152, 222, 156, 239, 678, 820 and 676.

492 Küttner 2008, 69, cat.nos 637, 281, 960, 170, 367, 582, 294, 206, 730, 609, 555 and 112. Lucco (cat.nos 754) is here excluded, because it is a dipinto. As a rule dipinti serve not as owner’s marks, but rather as trader’s or producer’s marks. This dipinto refers explicitly to a trader or merchant, not a soldier.


494 Küttner 2008, 71, cat.nos 949, 538, 19, 613, 73, 480, 664, 301 and 276.

495 Küttner 2008, 12-13, 71.


498 Küttner 2008, 70.

499 I.e. Faustus (Küttner 2008, cat.no 21a), Severus (cat.no 173), Verus (cat.no 269), Carus (cat.no 314), lucundus (twice: cat.nos 362 and 677), Amandus (cat.no 400), Firmus (cat.no 473), Titus (twice: cat.nos 589 and 626), Quadratus (twice: cat.nos 649 and 650) and Capito (cat.no 745).
vessels datable to the 1st century AD probably pertain to Roman citizens who were in principle recruited into the legions.

In addition to graffiti on pottery, some metal items recovered from various locations at Neuss also show inscribed texts. A clear military connection is provided by an inscribed tabula ansata. From one of the buildings in the so-called Lager 5 at Neuss, which has been identified as double legionary fortress, a large bronze fitting of a chest has been recovered (fig. 10). The tabula ansata showed a two-lined owner’s inscription, stating that the chest belonged to a Plautius Scaeva Vibianus, military tribune of the legio V (Alaudae). Legio V Alaudae is supposed to have garrisoned the legionary fortress at Vetera I after the Varian Disaster in AD 9. It is, however, now assumed that the legio V Alaudae was stationed at Neuss before it moved to Xanten, since the fitting in question was found among the remnants of a building from the Tiberian period. This owner’s mark thus supports the scenario that soldiers of the legio V Alaudae were stationed at Neuss at some point during the second and third decades of the 1st century (c. AD 18-30).

A military indication is also inscribed on both sides of a bronze S-shaped hook of mail armour, recovered from the principia of the so-called Koenenlager. It can be dated to the first half of the 1st century AD. Mail armour was worn by various types of Roman military forces, but in this case it was unmistakably part of an infantry soldier’s gear. The centuria sign punched in on both sides of the hook, at the start of the two similar lines of graffiti, indicates the connection with an infantry unit. Directly following after this military indication is, in both cases, terenti, which may best be explained as the cognomen or gentilicium of the commanding centurio, namely Terentius. Terentius is known as a common gentilicium with a strong presence in northern Italy, and also as a considerably less common cognomen particularly known from the Celtic regions, especially southern France. According to Kakoschke, a centurio with the cognomen Terentius is known from pre-Claudian Vindonissa, whereas a centurio by the name of L. Terentius is attested at Augustan Oberaden. Could this be the same legionary centurio, successively stationed at Oberaden, Neuss and Windisch? There might be a connection, but for now this cannot be more than a hypothesis. The graffito on the front of the hook is extended with the punched-in sequence ROMANI, which may be interpreted as the genitive case of the common and widespread Latin cognomen Romanus. This is either the cognomen of the centurio or the name of the owner of the chain mail armour. On the back of the hook, there appear to be some letters carved instead of punched into the metal after the initial sequence > TERENCE. Hans Lehner has interpreted these rather difficult to read letters as ATTIANI. This last part probably stands for the genitive

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500 Gechter 2007a, 209.
501 In this study the designation ‘bronze’ is used as a matter of convenience, especially following on source publications. Technically, it would be better to use the term ‘copper alloy’.
502 AE 2000, 1002.
503 Gechter 2007a, 209, 212; Kätter 2008, 67, with n. 221.
504 Lehner 1904, 380, fig. 12 and 13. See also Deschler-Erb 1991, 20 with fig. 7.2, 140, Fundliste 1, type 2 no 2.
506 Lehner 1904, 380.
case of the Latin cognomen Attianus, which appears to have a strong presence in the German provinces, but not until the 2nd and 3rd centuries.\textsuperscript{507}

A textual reference to cavalry is found on a saddle horn which most probably dates from the 1st century AD. The graffito is two-lined. The upper line reads \textit{t DASSI}.\textsuperscript{508} This is best explained as a reference to the turma to which the owner of the saddle belonged, under command of Dassius.\textsuperscript{509} Dassius is an Illyrian cognomen with a strong presence in the Pannonian and Dalmatian provinces. The lower line is difficult to decipher. Here, the sequence \textit{X CBMD BAIONII (?)} appears to have been applied to the bronze, but this cannot be satisfyingly solved. The last part could render the genitive case of the cognomen Bato, most popular in the Pannonian territory, but this interpretation is far from certain. The first part of the lower line remains unclear.

Finally, a silver ring found at Neuss-Grimlinghausen carries an elaborate text punched into its bezel which includes the name of an auxiliary unit.\textsuperscript{510} It reads: \textit{DECVAE / PRTHOR.VET / QVOI.PRAEST / P.VIBIVS / RVFVS}. The graffito thus tells us that the ring was issued to a decurio of the \textit{ala Parthorum veterana} under the command of P. Vibius Rufus.\textsuperscript{511} The reference to the praefectus of the unit in this graffito bears a strong resemblance to a similar wording in a graffito from Xanten-Vetera I that will be discussed below. On its own, the ring is difficult to date. The text of the graffito, however, may hold a clue. Alföldy sees in the use of the archaic form \textit{quo}i instead of \textit{cui} an indication for an early date, before AD 50.\textsuperscript{512} The mentioned \textit{ala Parthorum veterana} had probably been raised in the Augustan period and deployed to Pannonia, to help suppress the uprising in the years AD 6-9. After that, it was most likely directly transferred to Germania inferior, where it appears to have stayed until the middle of the 1st century AD.\textsuperscript{513} The inscribed silver ring is the only evidence at hand for the presence of the unit at Neuss.

In conclusion, the graffiti from Neuss attest to the presence of legionary as well as auxiliary soldiers, and both Infantry and cavalry. Names with specific geographical connections point to Italy, the Iberian Peninsula and the eastern Mediterranean, but also to Gallia Belgica and the German provinces.

\textit{Moers}

\textit{Moers-Asberg}

Most of the graffiti on pottery have already been presented by Tilmann Bechert in 1976.\textsuperscript{514} In 2010, Pia Eschbaumer published additional graffiti on Arretine terra sigillata vessels.\textsuperscript{515} In these inventories, 23 graffiti appear to be relevant to the research at hand. Whereas two graffiti on respectively a piece of terra nigra and

\textsuperscript{507} Cf. Kakoschke 2007, CN 356.
\textsuperscript{508} See Lawson 1982 (1978), pl 52.1 for an image. Contra Bishop 1988, 91, who reads this part of the graffito as \textit{t. BASSI}. Unfortunately, the object could not be located in the Rheinisches Landesmuseum in Bonn or the Clemens-Sels-Museum in Neuss. Pers. comm. S. Willer (July 2016).
\textsuperscript{509} Although the gentilicium Dassius is also attested, for instance in a 2nd/3rd-century inscription from Solin, Hungary (\textit{CIL} III 8775), the formula of similar graffiti makes it more plausible that the \textit{t} in this graffito is short for \textit{tarma} and not the praenomen Titus.
\textsuperscript{510} \textit{CIL} XIII 10024, 35.
\textsuperscript{511} According to Alföldy (1968), the commander of the \textit{ala} probably originated from Italy.
\textsuperscript{512} Alföldy 1968, 28.
\textsuperscript{513} Alföldy 1968, 28-29.
\textsuperscript{514} Bechert 1976.
\textsuperscript{515} Eschbaumer 2010.
a mortarium could also stem from the 2nd century AD, the remaining 21 graffiti occur on terra sigillata and can be dated more securely to the 1st century AD.

Of these 1st-century pieces, two graffiti contain a military indication. In both cases it concerns a reference to a cavalry unit. One of the two vessels, from the Flavian period, shows multiple graffiti of which one starts with a single T, followed by duo nomina.\(^516\) The other vessel is more difficult to date, but it may be classified as a 1st century piece. The graffiti on this dish mentions a vexillarius, which here must be understood as a standard-bearer of a cavalry unit. If the soldier in question would have been a detached soldier, i.e. a vexillarius among fellow-vexillarii, then this mark would not help to identify his property. If however his fellow soldiers are cavalrymen (equites), then the identification as vexillarius would indeed set him apart.\(^517\)

Two graffiti conveying duo nomina imply the presence of Roman citizens. One instance is found on an early piece of Arretine ware.\(^518\) The early date matches the suggested early presence of legionary soldiers at Asberg,\(^519\) although it cannot strictly be ruled out that the names belonged to a civilian living and working in the direct vicinity of the military. The other example of duo nomina is included in one of the graffiti discussed above, starting with a single T. The following duo nomina consist of a gentilicum and a cognomen.\(^520\) As these names are preceded by a single T, they refer to a decurio, who apparently held citizenship.

In total five gentilia have been identified, all on Arretine vessels.\(^521\) They can all be classified as Italic in origin. Another graffito on a piece of Arretine ware probably also contains a gentilicum, but the spelling GVRGON differs from the assumed original Gorgon(ius).\(^522\)

The remainder of the recognized names are cognomina. Nine of these, plus the two from the already discussed duo nomina, are Latin cognomina,\(^523\) but five others have a Celtic signature.\(^524\) As none of the Celtic names appear on early Arretine ware, but instead on South Gaulish terra sigillata vessels and a mortarium, they allow for an association of the inscribed Celtic names with men serving in the ala I Tungrorum Frontoniana. This unit, which originally had been recruited among Celtic-speaking peoples, is assumed to have been stationed at Asberg during the Claudio-Neronian period.\(^525\)

Two of the Latin cognomina have a geographical connotation (Hispanus, Asia), and another one points to Italy because of its limited distribution (Merula). Merula is a classic Italic cognomen, and as the graffito in question is placed on

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\(^{516}\) T. SABIN[.] SRCVNDI P(?) / AM[---]T: inv.no A 71/838.

\(^{517}\) MA[r]IALIS VEXILLARI: inv.no 5931.5932.5936.

\(^{518}\) Primus Numius: Inv.2534.2977; Bechert (1976, 38, no 2) read the text as a combination of a gentilicum and a cognomen, interpreting Primus not as a praenomen but as a cognomen. In my opinion the early date of the vessel advocates the interpretation of Primus as a praenomen.

\(^{519}\) This suggestion is primarily based on the funerary inscription set up by a veteran of legio II Augusta (CIL XIII 12075). See Bechert 1989, 111.

\(^{520}\) Secundus: inv.no A 71/838. See also n. 516.

\(^{521}\) Cornelius: inv.no A 75/31; Lucilius: inv.no 3145.3146.3161.3229; Munnius?: inv.no 4968; Vinileius?: inv.no A 70/502; Valerius: Eschbaumer 2010, cat.no 160.

\(^{522}\) Eschbaumer 2010, cat.no 509.

\(^{523}\) Merula: Inv.no 2699; Florus: inv.no A 73/236.238; Pacatus: inv.no 3157; Asia: inv.no ?; Secundus: inv.no A 71/838; Martialis: inv.no 5931.5932.5936; Vitalis: inv.no A 73/86; Macer?: inv.no 8867; Hispanus?: inv.no A74/144; Fortunatus: inv.no A 71/6118. The eleventh cognomen is probably Verecundus (inv.no 9407), which is especially well attested in the Gaulish and German provinces.

\(^{524}\) Auscissa?: inv.no 7695; Seni-: inv.no 4811; Germana: inv.no 69/1957; Annos: inv.no MM V 252; Atto: inv.no A 71/6118.

\(^{525}\) Cf. Bechert 1989, 120.
an early piece of terra sigillata, the owner of the vessel may be sought amongst
the legionary men operating under the emperors Augustus and Tiberius.

In addition to the graffiti on ceramic vessels, further incised marks can be found
on two bronze saddle horns. These belong to a set of four, found together in
an Augustan pit. The incised markings are difficult to read, but a multilined
sequence has been deciphered on both pieces. The text has been transcribed as
N / ORBI / FL [] B [] X. This has led to the tentative conclusion that the saddle
once belonged to a cavalry soldier named Fl(avius) B- who served in a numerus
under the command of an officer with the gentilicium Orbius. The reconstructed
gentilicium Flavius is too uncertain to be useful. The more certain gentilicium
Orbues, however, points to Italy. This may indicate an association with legionary
soldiers, but the graffito as a whole is too uncertain to serve as a strong argument
for assuming the saddle horns were once owned by a legionary cavalryman or
officer.

Moers-Lauersfort

During drainage activities in 1858 a unique set of nine phalerae was unearthed
within the grounds of Lauersfort castle, situated roughly halfway between Moers
and Krefeld. One of the sculptured discs shows a punched inscription on the
face, spelling T. FLAVI FESTI. On the basis of its stylistic features scholars have
suggested diverse dates for the phalerae, ranging from the early 1st to the late
2nd century AD. An early date, in the first half of the 1st century AD, appears
to be favoured the most.

Contrasting with this early date on stylistic grounds, the punched sequence T.
FLAVI has led to the interpretation that the imperial duo nomina Titus Flavius are
mentioned here and that the pieces therefore must date from the Flavian period
or later. Taking into account other graffiti on militaria, a single T at the beginning

526 Inv.no A 76/297-1 and A 76/297-2.
527 Hartmann 2012.
528 Esp. Matz 1932, Platz-Horster 2009b. The phalerae are part of the Antikensammlung, Staatliche
Museen zu Berlin, as Inv. Misc. 8124 bis 2-11.
529 E.g. Pfahl 2013, 481.
could also stand for turma. In that case, \textit{flavi} is best interpreted as the genitive of the cognomen Flavus, referring to the commanding decurio. \textit{Festi} would then refer to the author of the graffito, by the genitive of his cognomen Festus.

It is often overlooked that a similar inscription has been punched into a silver, partly gilded dish found together with the phalerae (fig. 11).\footnote{Esp. Matz 1932, 7, 18, pl. 5, below; Platz-Horster 2009a. This dish, of which only two fragments were found, might be identified as a type of military decoration as well (\textit{a pateilia} or \textit{phiale}), see Maxfield 1981, 96-97. It is part of the Antikensammlung, Staatliche Museen zu Berlin, as Inv. Misc. 8124 bis 1.}

This mark also reads \textit{t. flavi festi}, but slightly left above the two-lined graffito four more letters seem to be punched into the metal. It is difficult to decipher them; they probably read \textit{t.p} followed by \textit{fl}. They could be a first attempt of the graffito, followed by the larger letters below. A notable difference between the two versions is the inclusion of the extra letter \textit{p} in the first line. This may be the abbreviation of a cognomen lacking in the larger sequence below. Following this train of thought, the single \textit{t} would then most likely be the abbreviation for turma and not the cognomen Titus.

But the story of the Lauersforter phalerae does not end here. Five of the six phalerae show another mark, punched into the back, reading \textit{medami} (fig. 12). This name has been interpreted as that of the maker, a perhaps Gaulish silversmith.\footnote{Esp. Pfahl 2013, 482-483. Pfahl argues against the interpretations as an owner’s mark because of its central position and the high-quality execution of the punched letters. He is right in underlining that especially on high-quality silver vessels punched maker’s marks are known, but in my opinion phalerae are of a different order. They belong to the militaria, and I know of no militaria marked by their producers through a punched expression of solely their name(s) in the genitive case.} The name Medamus actually points to the Iberian Peninsula, especially its western parts. In addition, a maker’s mark on all the different phalerae in this style is unique. We do, however, know of another set of phalerae with names scratched on the back of the silvered pieces, found at Newstead.\footnote{Maxfield 1981, 95-96, pl. 16a.}

These scratched names are interpreted as referring to the owner of the phalerae, not the maker. In accordance, Medamus of the phalerae from Lauersfort would also have been the owner of the phalerae, not their maker. Valerie Maxfield thinks that Medamus was the owner of the phalerae before a Titus Flavius Festus.\footnote{Maxfield 1981, 94-95.}

Perhaps an alternative reading is more satisfactory. Taking into consideration the extensive mark on the silver dish, it would perhaps be more fitting to consider Medamus as the owner of the decorations, which he might have received while in service under decurio (Publius?) Flavius Festus. This is supported by Maxfield’s overview of men who received such awards as the phalerae and the silver dish. According to her, during the Principate these decorations were issued to men of the rank of centurio and below, not to higher officers. By then...
infantrymen as well as cavalrymen were eligible for both types of decorations.\(^{534}\)

Judging by his name, Medamus might well have served in an originally Spanish auxiliary unit. This identification could be criticised by stressing that there is hardly evidence for non-citizens receiving dona militaria as individuals during the Principate. However, a small number of examples show that on occasion it was indeed possible for an auxiliary non-citizen soldier of the imperial Roman army to win military decorations on their personal account.\(^{535}\) Alternatively, Medamus may have been a cavalryman from the ranks of a legion. The inscribed saddle horns dated to the first quarter of the 1st century AD from Moers-Asberg, discussed above, could point at the presence of legionary cavalry at the nearby fort of Asciburgium in that early period.\(^{536}\)

Where the recipient of this particular set of dona militaria was garrisoned, is not completely clear. The fort of Moers-Asberg at a distance of less than 4 km is the nearest military post, but the legionary fortresses at Xanten and Neuss are both only a day’s march away.\(^{537}\) These installations could have housed the decorated soldier known from the Lauersfort phalerae, although it can be asked why he would then have chosen the spot at Lauersfort at a considerable distance of his station to leave his decorations.

**Xanten**

**Xanten-Vetera I**

In Hanel’s extensive publication of the archaeological material from the legionary fortress Vetera I, the graffiti have been treated separately.\(^{538}\) Graffiti from Vetera I had already been part of Bakker and Galsterer’s inventory, but Hanel was able to list practically twice as many graffiti on pottery recovered from the Fürstenberg. In total, 138 pieces of pottery carry one or more graffiti; 33 are complete enough to be classified as name graffiti. Only one of these contains a possible military indication, namely a symbol that resembles a centuria sign.\(^{539}\) As the fortress on the Fürstenberg housed two legions, the mention of a centuria fits the dominant infantry character of the garrison.

The name graffiti from Vetera I stand out by a large number of duo nomina. Instances of tria nomina may be lacking, but no less than 14 of the 33 graffiti contain instances of duo nomina, 10 of which consist of a praenomen and a gentilicium. The high number of this particular combination is probably related to chronology as well as to status. Firstly, the praenomen fell in epigraphical disuse in the second half of the 1st century, whereas the fortress on the Fürstenberg was destroyed in AD 70 and not rebuilt. The well represented praenomina fit into the early timeframe. Secondly, the legionary soldiers stationed at Vetera I were Roman citizens. Although the combinations of praenomen and gentilicium are not exclusively found on Arretine ware, the

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534 Maxfield 1981, 64, 92, 96.
535 Auxiliary units have also been honoured *en bloc*, with their members receiving Roman citizenship or early discharge. Maxfield 1981, 121-127. Contra Pfahl (2013, 484) who states that such military decorations could only be issued to cives Romani and, according to Pfahl, a civis Romanus would rather have engraved his full tria nomina, not just his cognomen.
536 See above, n. 526 and 527.
537 The fort at Krefeld-Gellep is too late to be a candidate, if the phalerae are considered to be of an early 1st century date.
538 Hanel 1995, I, 149-158.
539 Inv.no 34537.
majority is indeed scratched into the earliest pieces of pottery, and therefore related to the soldiers who were the earliest occupants of the fortress.\textsuperscript{540}

Hanel already pointed out that a considerable number of the names cannot be associated with a specific region of origin.\textsuperscript{541} Most of the identified names on pottery dated to the Augustan and Tiberian periods are generally Italic in origin. This goes for the gentilicia Aemilius, Cominius, Ennius, Varius and Valerius, as well as the cognomina Hilarus and Firmus. The Italic gentilicium Pontienus is very rare. Licinius as a gentilicium is Italic in origin but might signal a connection to the Iberian Peninsula or perhaps Gallia Narbonensis.\textsuperscript{542} Other names were probably carried by men from northern Italy. This applies to the gentilicia Atesius (?), Lucilius and Sextilius. In addition, a person bearing the gentilicium Alfinus could originate from southern or central Italy. The cognomen Fuscus, on the other hand, has a notable concentration on the Iberian Peninsula, according to Mócsy.\textsuperscript{543}

The names on pottery from the Claudio-Neronian period are even more common. Generally widespread Latin names inscribed on South Gaulish terra sigillata from Vetera I are the gentilicia Vibius and Licinius, as well as the cognomina Carus, Maximus (sic) and Severus.\textsuperscript{544} Some are more rare, such as the gentilicia Milionius and Satius. But none of the attested names have clear concentrations outside of the traditional legionary recruiting grounds of Italy, Gallia Cisalpina and Narbonensis.\textsuperscript{545} A possible exception might be the Latin cognomen Verecundus, which was remarkably popular in the Gaulish and German provinces.

The name Verecundus is also encountered on a pendant, as part of a set of horse trappings in the collection of the British Museum.\textsuperscript{546} It is said to have been found at Xanten, probably at the location of Vetera I, but the exact findspot is not known. On the back of the said pendant the rather faint sequence \textit{ver/cvn/di} has been deciphered. But this is not the only graffito present in this set. Another pendant carries the more extensive graffito \textit{t.capit oni/mar ian} (with the last part not quite clear). From the first and the second graffito it can be deduced that at least two single names and thus two different individuals are mentioned, namely Verecundus and presumably Marianus. The second graffito has been alternatively read as ‘from Titus Capitonius Marianus’ or ‘from Marianus, from the turma of Capito’. Opinions also differ about its relation to the graffito mentioning Verecundus.\textsuperscript{547} Judging from similar graffiti presented here, and the overall scarcity of tria nomina in graffiti, the most likely explanation appears to be that the singular \textit{t} stands for turma. This is then followed by the cognomen of the decurio, Capito, in the genitive case. Correctly written, this should spell \textit{Capitonis}, and not \textit{Capitoni}. In the way the letters are punched, the graffito leaves room for this interpretation with the \textit{N} and \textit{I} in ligature, and

\begin{itemize}
\item \textsuperscript{540} Contra Hanel (1995, 157) who writes that the combination of praenomen and gentilicium is completely lacking on South Gaulish vessels. Graffiti including a praenomen and a gentilicium however occur on a terra nigra dish (inv.no 21637b) and two South Gaulish dishes (inv.nos 33366 and 33392), one of which is stamped by Aquitanus and therefore datable to the Claudio-Neronian period.
\item \textsuperscript{541} Hanel 1995, I, 157.
\item \textsuperscript{542} Cf. Kütter 2008, 71, fig. 18.
\item \textsuperscript{543} Mócsy 1985, 59.
\item \textsuperscript{544} Hanel 1995, I, 158.
\item \textsuperscript{545} Cf. Hanel 1995, I, 157.
\item \textsuperscript{546} Esp. Jenkins 1985.
\item \textsuperscript{547} E.g. Jenkins (1985), Junkelmann (1992, 80-81) and Kakoschke (2008, CN 1909) explain the graffito as pertaining to a Titus Capitonius Marianus, whereas Saddington (1987) and Haalebos (2000a, 34, n. 58) interpret the \textit{T} as the abbreviation for turma. Schreiter (2013) writes the names as Capito Marianus, which would make for an odd combination (in such an owner’s mark) between two single names or cognomina.
\end{itemize}
a crude s at the end. A reading of Capitonis instead of Capitonii is supported by the argument that Capitoniius is a so-called pseudogentilicum. According to Kakoschke’s data, these pseudogentilicia normally occur from the 2nd century onwards. Marianus was probably the owner before Verecundus, since the graffito mentioning Verecundus does not name a commanding officer. Thus, they may well have served under the command of the same decurio, Capito. Whereas Capito is a widespread Latin cognomen, Marianus is considerably less popular.

To add to these two graffiti, a third graffito is found on the same set of horse-trappings, this time on the front of a phalera. This graffito has received attention on its own account, for it can be connected to a historical figure. The text plinio praef eq refers to C. Plinius Secundus, Pliny the Elder, who is known to have served as a praefectus of an ala, and probably before that as a praefectus of a cohors, in Germania around the middle of the 1st century AD. The stylistic features of the pendants and the phalerae fit this time frame. A date around the middle of the 1st century also supports the aforementioned reading of the second graffito on the pendant, with the cognomen Capito instead of the pseudogentilicum Capitonius. Unfortunately, we do not know the name of the cavalry unit commanded by Pliny in the Claudio-Neronian period. If the horse-trappings indeed have been found at ‘Castra Vetera’ on the Fürstenberg, then we can infer that not only legionary but also auxiliary troops were present there in this period.

Xanten-pre-colonia

Although Colonia Ulpia Traiana was unmistakably a civilian site from the moment it received its colonial status from Emperor Trajan, the nature of the preceding settlements is less clear-cut. It is suspected that they included at least one auxiliary fort. This assumption is mainly based on the discovery of cavalry fittings and of a V-shaped ditch unearthed below insula 15 of the later city. It was estimated that the fort was manned by an ala quingenaria. The finds from the (small) excavated section allow for a provisional Claudian date for this fort.

Some of the graffiti collected at the site of Colonia Ulpia Traiana also point to a military post from the 1st century. Weiß-König lists eight graffiti containing a centuria abbreviation and one graffito in which a further unidentified legion is named. The named centuriae appear to have been commanded by at least seven different centuriones. A terra sigillata vessel carrying one of these graffiti can be dated to AD 65-100. The other graffiti are more difficult to date precisely, but probably are from the 1st century AD. From these owner’s marks with military indications eight proper names can be distilled, of which five belong to the regular Latin name repertoire. Two names in one graffito constitute an example of duo nomina, Sellius Tertius; the gentilicium points to Italy. It is likely that these names were borne by a legionary who according to the graffito served under a centurio by the name of Paullus. The final remaining name, Briccus,

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548 There are some exceptions, but their number is limited. Cf. Kakosche 2004, 12.
551 Weiß-König 2010, 90-91, esp. table 20 and also 254, table 33.
552 Weiß-König 2010, cat.no 151.1.
553 I.e. Paullus (Weiß-König 2010, cat.no 837.1), -aest(i)us (cat.no 896.1), Asper (cat.no 997.1), Man(i)us (cat.no 430.1), and probably Caius (cat.no 501.1).
555 A centurio named Paullus is also known from multiple graffiti found at Nijmegen and from inscribed texts on roof tiles produced at the Tegularia Transrhenana. See below under the heading Nijmegen-Hunerberg, n. 659-664.
has a Celtic signature,\textsuperscript{556} and could have belonged to a member of an auxiliary unit.

In addition to the graffiti on pottery vessels, some graffiti on stone and metal objects found at the site of the colonia also have a military signature. One millstone fragment unearthed in the eastern part of the colonia carries a graffito in which a centuria sign is named: the sequence starts with a centuria sign, after which the name of the centurio appears to be indicated by a \textit{c}, for his praenomen, and the following letters \textit{var[---]} as the start of his gentilicium. The millstone is dated to the first half of the 1st century AD.\textsuperscript{557} A second inscribed millstone fragment comes from the centre of the colonia; this piece also has letters carved in its side.\textsuperscript{558} The first three letters appear to be the abbreviation \textit{TVR}, for turma, followed by \textit{ENNI[---]}, which may be interpreted as the proper name of the commanding decurio. Ennius is better known as a gentilicium (of Italic origin) than as a cognomen, but given the other examples of owners’ marks with military indications, an identification as a cognomen seems more likely. Finally, a dagger of the Vindonissa type has been found within the walls of the city. The dagger as an object is ultimately associated with the military. This piece is dated to the Claudio-Flavian era. In the upper part of the blade \textit{ACILIAN} is punched.\textsuperscript{559} This can be supplemented to the cognomen Acilianus, which appears to have a connection with the Hispanic provinces.

In general, the settlements preceding Colonia Ulpia Traiana are considered as mainly civilian, but they seem to have had a certain military component.\textsuperscript{560} The graffiti with military connotations from the colonia could relate to military units present here. Specific archaeological features and finds have been used as arguments for locating one or more military (auxiliary) installations on the terrain of the later colonia.\textsuperscript{561} It is also possible that the centuriae mentioned in these graffiti from the colonia site refer to legionary subunits stationed at nearby Vetera I or II. The turma mentioned in a graffito on one of the millstone fragments could theoretically have been part of a legion, but it is also possible that it belonged to an auxiliary unit.

An object with a graffito that can be brought in direct connection with a legion has been found in the southeastern corner of the colonia.\textsuperscript{562} It is a lunula-shaped pendant which will have been part of horse gear. It can be dated to roughly the first half of the 1st century AD. The upper side of the pendant shows a punched inscription, apparently meant to be read from above, when seated in the saddle (fig. 13). The first part of the graffito is somewhat damaged, but the two lines can be transcribed as > [\textit{Latini / C. Viselli}. It can be deduced that the pendant once belonged to a Caius Visellius who served under the command of probably Latinus, who appears to have been a centurio rather than a decurio, although the inscribed item is a piece of horse gear.\textsuperscript{563} The cognomen Latinus seems to have a notable concentration in the Alpine region. Visellius is a rather rare gentilicium.

\begin{itemize}
\item \textsuperscript{556} BRICCI > MANI: Weiβ-König 2010, cat.no 430.1, 90-91, table 20 and 254, table 33.
\item \textsuperscript{557} Rüger 1981, 305-306. One of the graffiti referring to centuriae in Weiβ-König’s list (2010, 91, table 20) also contains the name Caius; this may in theory be the same centurio as the one mentioned on the millstone.
\item \textsuperscript{558} Liesen 2008, 214, fig. 136; \textit{AE} 2009, 923.
\item \textsuperscript{559} Schalles 2006a, no 59.
\item \textsuperscript{560} Weiβ-König 2010, 90.
\item \textsuperscript{561} \textit{Cf.} Weiβ-König 2010, 90.
\item \textsuperscript{562} Lenz 2006, cat.no 234.
\item \textsuperscript{563} Since the first part of the graffito is damaged, it cannot be ruled out that the text actually started with a turma abbreviation instead of a centuria sign.
\end{itemize}
Kakoschke lists two C. Visellii known from the German provinces, one of whom is a veteran of the *legio XI Claudia*.564 Under the command of Cerialis, this legion was victorious in a battle against the Batavian insurgents at Xanten. It is thus possible that the veteran of the *legio XI Claudia* known from a Flavian inscription found at Vindonissa, lost the pendant with the graffiti in the hostilities in AD 70. Although the C. Visellius from Xanten cannot for certain be identified with the veteran from Vindonissa, the duo nomina of the owner of the pendant and the mentioning of a centuria are enough reason to assume a link with a legionary unit. However, a definite association with this late Flavian veteran member of the *legio XI Claudia* is obstructed by the date of the inscribed pendant (AD 1-50), which by the way matches the early date of the general praenomen and gentilicium combination.

**Xanten-Alte Rhein**

During dredging activities in the area of the former bed of the river Rhine between the villages of Xanten and Wardt large numbers of Roman objects have been found. These objects cannot be attributed to one particular site, but it is likely that at least part of the assemblage ended up in the Rhine during or shortly after the Batavian Revolt.565 The dredge finds included various fragments of terra sigillata marked by graffiti, but only one of those conferred a name on a 1st-century piece.566 The name in question is the common and widespread cognomen Rufus.

The more conspicuous objects of this collection are the metal finds, of which some also carried a graffito. One of the most informative metal finds is a bronze shield handle of an Elbgermanic type.567 It can be dated to the early imperial period, most likely pre-Flavian.568 On the preserved outer end of the decorated metal handle the punched text *> albani* can be deciphered. The text implies that the shield was used by one or more infantrymen under command of centurio Albanus. The cognomen Albanus is common throughout the Empire. Although the shield is of a foreign, Elbgermanic type, the punched inscription makes clear that it was used in service of the Roman army. This find leads one to suspect that men of Germanic descent were stationed as auxiliary soldiers in the direct vicinity of Xanten.569

Another dredge find points to men from Italy serving here in the early imperial period. A graffito on a saucepan of type Eggers 131, datable to roughly AD 1-35, is not easily read, but seems to include *l. comno* in its second line.570 It is worth mentioning that a L. Cominius was already known from the Xanten area, as the owner of a piece of Arretine ware from Vetera I.571 The gentilicium Cominius was especially current in northern Italy.572 It is possible that the two graffiti

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564 Kakoschke 2006, GN 1455, no 7 (CIL XIII 11507).
565 The strong military character of the assemblage, its chronological focus in the third quarter of the 1st century AD, and the absence of clear votive dedications or other ritual indications substantiate this conclusion. Cf. Schalles 1999, esp. 215.
567 Inv.no 90,15.019 (RMX). Schalles & Schreiter 1993, 228, Mil 83.
568 Schalles 2006b, 214. See also n. 1168.
570 Inv.no 92,18.001 (RMX). Schalles & Schreiter 1993, 246, no Mg 37.
571 The pottery fragment is registered as inv.no 25234. See above, after n. 541.
572 On a bucket of type Eggers 39, also found at Xanten-Alte Rhein, the gentilicium Cominius appears again, this time together with the fully written out designation turma in the text *tvrma.ma comini.maxim*. Based on its findspot inbetween the so-called Nordsee and Südsee, however, it is suspected that the bucket postdates the 1st century AD. It is therefore not included here. See Schalles 2006a, 109-110, no 62.
from the Xanten area were made by the same man, who was apparently in the possession of full Roman citizenship.

**Altkalkar**

A small number of graffiti on 1st-century pottery have been found in the surroundings of Altkalkar, near the auxiliary fort of Burginatium. One of those is placed on a terra sigillata dish Dragendorff 18 dated to AD 75-110 by its stamp. The dish shows the following inscribed text: **T VIRILLI GINIALIS**. As no gentilicium starting with Verull- is known this sequence of letters is probably to be read as the genitive case of the cognomen Verullus. Verulus or Verulus is the diminutive of the popular cognomen Verus, and not a common cognomen. It has a notable concentration in Gallia Narbonensis. This happens to be the region where the tribe of the Vöcontii was settled, so Verulus may well have belonged to the *ala Vocontiorum* known from monumental inscriptions found near Altkalkar. The last part of the text also consists of a cognomen in the genitive, namely Genialis, a widespread Latin cognomen. The first, single letter T has been interpreted as an abbreviation of the praenomen Titus, but that would only make sense if a gentilicium followed. As this is not the case, the T must instead be read as standing for turma. In all, the graffito tells us that the dish was once owned by Genialis, soldier in the turma of Verulus. This confirms that a cavalry unit was stationed in Burginatium during the Flavo-Trajanic period. Not only the *ala Vocontiorum* but also the *ala Noricorum* and the *ala Afrorum* are known from inscriptions found there. The presence of the latter two units in Germania inferior is also attested by the military diplomata of AD 78, 98, 101 and 127. The *ala Vocontiorum* is not mentioned in these sources, but the distribution of the name Verulus pleads for an association with this particular unit. It may therefore be worthwhile to consider the *ala Vocontiorum* as the (temporary) garrison of the fort at Burginatium during the Flavo-Trajanic period.

Another graffito on a terra sigillata vessel datable to the 1st century can be transcribed as **Travio**. It is placed on the outside wall of a dish Dragendorff 15/17 of Claudian date. It is unclear how the graffito should be understood. It most likely concerns the name Travius. The final -o suggest a dative case, where one actually would expect a genitive. The name Travius itself is not very common. As a gentilicium it seems to point to Italy.

Finally, a more extensive graffito reading **T SABINI A[---]** was found on the wall of a smooth ware flagon. Again, the presence of cavalry is signalled. The T at the beginning of this graffito may be interpreted as short for turma, and Sabini as the cognomen of the commanding decurio in the genitive case. Sabinus classifies as a very common cognomen. The final A- is probably the start of the name of the author of the graffito. It is also possible that the flagon belonged to the subunit as a whole, with Sabinius as the gentilicium of the decurio and the A- the first letter of his cognomen. Unfortunately, this piece of pottery cannot be more securely

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573 *NoTS*, L. Cosius Virilis (La Graufesenque and Le Rozier?), die 12–b, date: AD 75-110.
574 Cf. Bakker & Galsterer-Kröll 1975, 172 (Kleve inv.no 308).
576 Bakker & Galsterer-Kröll 1975, G.Nr. 529.
577 Bakker & Galsterer-Kröll 1975, G.Nr. 528.
dated than c. AD 50-225. The graffito in question cannot therefore inform us with certainty about the garrison of 1st century Altkalkar.

**Herwen-Bijlandse Waard**

Two bronze objects dredged up from the Bijlandse Waard between 1938 and 1940 attest to the presence of infantry. A bronze casserole with disc-ended handle, of the type Eggers 144, has an inscription punched into the outer base. The dots constitute the text > VNICI REBILL, which can be transcribed as > Unici Rebili. Apparently, this casserole once belonged to a soldier named Rebilus, who served in the centuria under command of Unicus. According to Kakoschke, this centurio named Unicus must have originated from the Mediterranean region. However, the cognomen Unicus seems to be very rare, and the three attestations listed by Kakoschke are all contested or incomplete. They come from Germania inferior (the one at hand), Gallia Belgica (incomplete) and Africa proconsularis (contested). A clear connotation apart from its Latin root cannot be awarded to this name. The cognomen Rebilus, on the other hand, points clearly to Italy or the Iberian Peninsula. The casserole has been dated to the period of AD 55/60-90/120.

During the same dredging operations, a bronze bucket of the type Eggers 38 was recovered. On the upper side of the everted rim an inscription had been punched. The text reads: > D PRISCI PRIMI. After the inverted C, which stands for centuria, the singular D indicates the gentilicium of the centurio. His cognomen is Priscus. The last part of the inscription is constituted by the cognomen in the genitive case of the soldier who once owned the bucket, Primum. This type of bucket has been in long use, namely from the end of the 1st century BC into the 2nd century AD. Although the bucket cannot be dated with certainty to the 1st century AD, the casserole was very probably produced in the second half of that century. It is therefore reasonable to assume that infantry soldiers were present at Herwen-Bijlandse Waard after the middle of the 1st century AD.

In 1953 an almost complete sword scabbard was discovered, with even part of the limewood interior preserved. The front was covered with silvered bronze plates with engraved decorations. The most striking of these decorations was a helmeted but further unclad male figure, possibly representing the god Mars. This piece of military equipment is dated to the first half of the 1st century AD. On three of the metal bands graffiti have been incised (fig. 14). At the top of the scabbard, on the upper silvered casing, a centuria sign followed by ΡΙΡΒΡΙ is carved into the metal. The name Reburrus has a strong presence on the Iberian Peninsula, similar to the earlier mentioned Rebilus. On the second band

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578 Koster 1997, cat.no 67.  
579 Kakoschke (2008, CN 3159, item 1) erroneously mentions Nijmegen as the findspot. Contra Koster (1997, cat.no 67), who writes, without further elaboration but with reference to Kajanto (1965, 294), that the cognomen Unicus was especially popular in the eastern parts of the Empire. Kajanto lists a mention of the name in Mart. XII.44 and in one inscription (CIL VIII 11374).  
581 Koster 1997, cat.no 78.  
582 A third bucket from the Bijlandse Waard with a graffito punched on its rim has unfortunately been lost during the Second World War. Although the graffito has been published (AE 1951, 146), the text was difficult to read. Since the text nor the type of bucket could be securely interpreted, this find is not included in this overview.  
583 Inv.no 1963/7.1 (RMO). Roes & Vollgraff 1955; Stuart 1986, 106-108; Nicolay 2007, 27, pl. 22 (176.9).  
584 Published as AE 1956, 169, but with a different reading.  
585 Please note that a fragmentary helmet found at Amerongen-S’ Spijk (dredge pit) shows the similar sequence > BEVRRL. This infantry helmet of the late Weisenau type can be dated to the late 1st century. Perhaps the same centurio is referred to on these two objects found at an intermediate distance of roughly 35 km. See below, n. 986-987. Nicolay 2007, 17, 187, table 5.3, no 11 (12.1).
from the top, a different centuria is mentioned, through a centuria sign preceding LOGINI. This may be interpreted as the genitive case of Longinus, a common Latin cognomen, in which the n has (erroneously) been left out. Mócsy classifies the cognomen Longinus as one of his Type F-names, with concentrations in Hispania, Moesia and Dacia. Although tentatively, again a link with the Iberian Peninsula can be put forward. Finally, the lowest band shows the text VAGIONIS, which is generally accepted to be the genitive of the name Vagio. The Vagiones or Vangiones were presumably a Germanic, possibly later Celticised, people which resettled in the region around modern-day Worms before the middle of the 1st century AD. A person known by the name Va(n)gio will probably have had a personal connection with this Germanic people. There is, however, another reading of the last graffito possible, one that would fit the other onomastical evidence from this site. If the graffito is alternatively read as VACIONIS, then a link with, again, the Iberian Peninsula would present itself. Vacio may namely be related to Vaccaei, the name of a people who Curchin lists as inhabitants of the middle Duero valley in Central Spain. Cognates to the name Vaccaei are possibly the Celtic personal names Vaccio or Vaccius. The graffito here at hand may be a variant of these names. If so, then the third graffito on the scabbard would also attest to a connection with the Iberian Peninsula, similar to Rebilus and Reburrus.

In short, it seems most likely that the owner or user of the sword was called Va(n)gio or Vazio, and that he served under the subsequent command of the

586 Mócsy 1985, 66.
587 Wiegels 2006.
centuriones Reburrus and Longinus. Since no gentilicia are mentioned and at least two names appear to point to the Iberian Peninsula, the graffiti may indicate that a (nominal) Spanish auxiliary unit was present at this site in the early 1st century AD. A legionary connection is, however, not excluded. A legio I is attested at Herwen through a funerary inscription, but its additional title is not included. The inscription has been dated to the first half of the 1st century AD. Other sources tell us that the legio I Germanica operated in Germania inferior during the 1st century AD. Before that it was stationed in Hispania Tarraconensis, from about 30 to 16 BC. Perhaps the legio I from the inscription found at Herwen can be equated with the legio I Germanica. If so, it would have been possible for local Spanish men to join its ranks during the early Augustan period, when it was stationed on the Iberian Peninsula. If the sword scabbard dates from the beginning of the 1st century AD, a connection with such men can be hypothesised.

Nijmegen

Nijmegen-Kops Plateau

The Kops Plateau site in the east of modern-day Nijmegen has yielded a considerable amount of graffiti, with the largest group of 929 graffiti on pottery collected during the excavations of 1986-1995. A small number of graffiti are found on metal objects. These graffiti together comprise various clues regarding the nature of the units and individual soldiers stationed on the plateau in the pre-Flavian period.

The most elaborate clue is given by what is strictly not a graffito, but since the small silver-plated bronze disc in question does carry an owner’s mark, it is nevertheless discussed here. The disc has a diameter of 6.3 cm and probably constituted the head of an ornamental stud. By the pin on the back it could be attached to a wooden chest or something similar to function as a name tag. It has the following lettering moulded in relief: c. aqvilli / procvli / > leg viii / a vg. It apparently once marked the belongings of C. Aquillius Proculus, centurio of the legio VIII Augusta. This might indicate that the legio VIII or a detachment of this legion was once present on the Kops Plateau, but there is another possibility. Tacitus writes of a primipilus named Aquilius, who reorganised the defeated Roman troops on the insula Batavorum in the spring of AD 69. Primipilares were experienced men who had held the important rank of centurio of the first cohors of a legion, primus pilus or primipilus. They were often tasked with special assignments or, more regularly, high military or semi-civilian offices. Primipilus is a status or title rather than a specific rank. The status of primus pilus and subsequently primipilares would be notable enough to state more explicitly than just a centuria sign as is included in the third line of the text.

589 A centuria Reburriana, as part of the legio XV Apollinaris, is known from a funerary inscription found at Petronell-Carnuntum (AE 1929, 220), but with a date of AD 90-96 this inscription is considerably younger than the graffiti on the sword scabbard.

590 AE 1939, 106.

591 When not explicitly stated, the pieces with graffiti discussed here have been found during these excavations.

592 Find no 417/093. The disc was found in 1994, and has been published separately as AE 2009, 926 = AE 1998, 966. It was discovered in what appears to be a cellar, north of a large horreum. Other finds from the same context suggest a deposition shortly before the Batavian Revolt. See Van Enckevort & Zee 1996, 67-68.

593 Tac. Hist. 4.15

594 Dobson 1978, 1, 65-67. Tacitus’ Aquilius is not included in Dobson’s catalogue of primipilares’ careers as known from literary as well as epigraphical sources (Dobson 1978, 165-335).
on the disc. Perhaps the disc was ordered by Tacitus’ Aquilius before he was promoted to primus pilus, and subsequently into the order of primipilares. By the time he had reached the rank of primipilaris, it is likely that he operated detached from a specific legion.

The sequence of events in AD 69 further complicates the identification of the Aquilius mentioned by Tacitus as the owner of the silver-plated disc from the Kops Plateau. Tacitus writes that the legio VIII Augusta took part in the second battle of Bedriacum (near Cremona) in October 69.595 Before that, the legion had its main stay under Claudius and Nero at Novae in Bulgaria.596 From Italy it subsequently moved north, through Gaul to the Rhine, in response to Vespasian’s order to quell the Batavian Revolt. Since the second battle of Bedriacum took place in the fall of AD 69 the legio VIII Augusta cannot have been operating in the Lower Rhine region in the spring of AD 69.597 Evidence for the legion’s later presence at Mirebeau-sur-Bèze (near Dijon) is dated to c. AD 70-90.598 It remains very remarkable, however, that the infrequent – certainly in the German provinces – gentilicium Aquillius appears in both a literary and an archaeological source, placing it in the same region and roughly the same time frame.

If the last considerations outweigh the former objections, then the discovery of the disc on the Kops Plateau may be taken as evidence that by the summer of AD 70 the legio VIII Augusta was garrisoned somewhere near the flash points of conflict along the Lower Rhine. A vexillatio, possibly commanded by centurio or primus pilus Aquilius, may then have been sent to the Nijmegen area. The legion’s local base of operation could have been the recently discovered fortress at Till-Kapitelshof near Bedburg-Hau, which was large enough (c. 15 ha) to house a legion, had unusually strong defence structures (consisting of four to five ditches), and seems to have been built between AD 50 and 120.599 Whereas the occupants of the legionary fortresses at Bonn, Neuss and Xanten in AD 69/70 are well attested, the garrison of this probably short-lived fortress situated roughly halfway between Nijmegen and Xanten remains unknown for now. Legio VIII Augusta might be a suitable candidate, perhaps as a predecessor of the already suggested legio X Gemina.600

At least one, but possibly six graffiti can be ascribed to Roman citizens.601 This goes with certainty for the graffito l.comini incised on the base of an Arretine sigillata dish Conspectus 12. As Cominius is a gentilicium that can be classified as ‘Mediterranean’,602 we may assume that the mentioned L. Cominius was at home in the heartland of the Roman Empire. Since his rank is not mentioned, we do not know for certain whether he served in a legion or as an officer in an auxiliary unit. However, it is not very likely that an officer had the need to mark the ceramic vessels of his daily service. It therefore seems more probable that Lucius Cominius was a legionnaire. This graffito may therefore indicate

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595 Tac. Hist. 3.10ff.
596 Fischer 2012, 22, 276.
597 Contra Willems & Van Enckevort (2009, 40-41), who suggest that the owner of the disc was probably sent to the Lower Rhine already at the end of the 60s. It seems illogical to send a vexillatio of the legio VIII Augusta all the way from Italy or perhaps even Bulgaria to Nijmegen-Kops Plateau, when there were at least two legions stationed at nearby Xanten-Vetera 1 (i.e. legio XIV Primigenia and legio V Alaudae).
598 Reddé 2015.
599 Englert & Bödecker 2016.
600 Cf. Englert & Bödecker, 6-7. Legio X Gemina could then have replaced legio VIII Augusta in the fall of AD 70. This would allow the site to be identified with Arencium (Tac. Hist. 5.20)
602 Mócsy 1985, 68.
the presence of legionary soldiers on the Kops Plateau c. 10 BC-AD 10. Remarkably, multiple attestations of the name Cominius are known from the Xanten area, including a L. Cominius who appears to have been stationed at Vetera I in the same period.

There are further indications for legionary soldiers on the Kops Plateau, and perhaps even a reference to which legion at least one of these legionary soldiers belonged. On the base of an Arretine sigillata cup Conspectus 14 dated to around 10 BC, a two-lined graffito has been inscribed. The first line reads τυςσιqυv and appears to carry a name and a rank. The name is to be transcribed as T. Ussi(i) or Tussi, representing either a praenomen Titus and a cognomen Ussius or a cognomen Tussus. The second part of the first line presents more difficulty. According to Jan Kees Haalebos, it seems the most probable to read here the rank of the named person, abbreviated as iqv. Qualifying for this option are eques, a cavalryman, and aquilifer, an officer who carried the eagle standard of a legion. The latter implies that the author of the graffito would be a legionary soldier, which would tie in with the interpretation of tvssi as T. Ussii. If so, then the second line of the graffito in question can at best be read as lig (or LIG), an abbreviation of legionis I G(---) or C(---). The G (or C) could be supplemented into Gallica, Germanica, Gemella or Gemina, of which Gallica appears to be the best candidate, according to Haalebos. However, other solutions without the inclusion of a legion by name are equally possible. Either way, this graffito may be taken as another indication for a legionary presence on the Kops Plateau.

The presence of cavalry has repeatedly been recognized by the occurrence of the term turma. This is also the case for the Kops Plateau. One of the graffiti is remarkably extensive and appears to contain that word almost fully. It is placed on the outside wall of a terra sigillata cup Conspectus 22, stamped by Ulliis, and has been read by Jules Bogaers as acvtivs trma ivcvndvs trili > grati[ani?] i x. The stamp allows the vessel to be dated to 10 BC-AD 10. According to Bogaers’ notes, his (incomplete) transcription is: Acutius Tr(omentina tribu) Ma ... Incundus Trili(eni?) T? Although he recognizes the possibility that trma can be transcribed as t(u)rma, he regards this as ‘hardly believable’. Parallels in other graffiti and the structuring of the text of this particular graffito constitute counterarguments to Bogaers’ reluctance. The sequence is all in all best interpreted as indeed the indication for a turma, which entails that the owner of the cup was a member of a cavalry unit. The rest of the text may be difficult to solve, but the graffito can be considered as a marker for the presence of cavalry on the Kops Plateau, again around the beginning of the 1st century AD.

Several graffiti with a singular T at the beginning of the text further confirm the presence of cavalry. In these cases the T is best read as the abbreviation for the term turma. This applies to first of all to the graffito T.MORLDIG[S] on the base of a South Gaulish terra sigillata dish Hofheim 1. The dish has been dated 603

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603 Find no 302/016. It carries the stamp crispini. See OCK 702, Crispinus (1), location ?, c. 10 BC-AD 10.
605 Published separately as AE 1976, 515.
606 The cognomen Tussus is not further attested, except in three graffiti ante cocturam on pottery fragments from the canabae legionis west of the Flavio-Trajanic castra at Nijmegen. These graffiti can be dated to the Flavian period on account of the excavation contexts. Pers. comm. R. Kloosterman (Radboud University).
607 Haalebos 2000a, 10-12, with afb. 2.
608 Unpublished notes in Bogaers’ archives (Museum Het Valkhof, Nijmegen).
609 OCK 2534, Utilis (3), Lyon, c. 10 BC-AD 10. Find no 295/126.
610 I propose the following reading, but with considerable reservation: Rufus t(u)rma Sucundus prila crat(e)r felix. Please note that three different handwritings can be recognized. I thank S. Weiß-König (Museum Het Valkhof, Nijmegen) for pointing this out to me.
to the late Tiberian period. Secondly, \textit{t.labi.rv}[----] has been incised on the wall of a sigillata cup Conspectus 33. \textit{Labi} is probably short for the gentilicium Labienus, which points to the South. The third part of the graffito consists of the first two letters, \textit{rv}, of a cognomen, which unfortunately cannot be supplemented further with certainty. The vessel can be dated to the Augusto-Tiberian period on account of its shape. For the third case of a single \textit{T} used as an abbreviation for turma we turn to a different category, that of bronze vessels. On the outer end of a bronze simpulum handle fragment two punched inscriptions were discovered, one on each side. On the upper side Bogaers deciphered the letters \textit{---}\textit{mani}, on the other side \textit{t violo vi}[----]. According to his notes, he would explain the latter as an expression of the ownership by Verus or Verecundus from the turma of Vilo. The other graffito has many possible solutions, as many names end in \textit{--man(i)us}. Statistically the cognomina Romanus and Germanus are the best candidates. Romanus is attested above average in the Gaulish provinces of Lugudunensis and Aquitania, Germanus in the Hispanic provinces and Dalmatia. The simpulum handle can be dated to the period c. 15 BC-AD 60.

Most of the graffiti contain common Latin cognomina or abbreviations that have various but equally common solutions. The cognomina \textit{Firmus}, \textit{Rufus} and \textit{Secundus} are very common throughout the Empire. \textit{C(h)rest(us)}, \textit{Crisp(us/-inus)}, \textit{Niger}, \textit{Peregrinus}, \textit{Quadratus} and \textit{Quartus} are less common, and best represented in the Mediterranean heartland of the Empire. The cognomen \textit{Aper}, meaning ‘wild boar’, is also frequent in the Mediterranean region. \textit{Albanus} is a common Latin cognomen as well, but this name could also have a Celtic background. Most of the mentioned Latin cognomina have their highest popularity in Italy and the neighbouring regions around the Mediterranean, certainly during the early imperial period. It may therefore be considered likely that the men who left these graffiti on the Kops Plateau came from the heartland of the Roman Empire.

A few names have a somewhat ambiguous character. In at least three graffiti the name \textit{Iulius} can be recognized. This name is predominantly known as an Italic, even imperial gentilicium, but it is also attested as a cognomen. The originally Italic gentilicium \textit{Lollius} has been used as a cognomen as well, albeit in a far lesser number. In the graffito from the Kops Plateau it probably served as a cognomen. A similar phenomenon is recognized for the praenomen \textit{Marcus}, which is also known as a cognomen. The latter use would be more logical.

\begin{itemize}
\item \textit{Van Enckevort 2004, 112, fig. 9. However, the dish was probably not produced before AD 30, since it is stamped by Regenus. \textit{NoTS}: Regenus (La Graufesenque), date: AD 30-65.}
\item \textit{Unpublished notes in Bogaers’ archives (Museum Het Valkhof, Nijmegen).}
\item \textit{Conform the general dating of simpula of the Aislingen type. See e.g. Petrovszky 1993, 42-46, Typ XI,2 and Koster 1997, cat.nos 37-38.}
\item \textit{Find no 260/201.}
\item \textit{Find no 384/224.}
\item \textit{Find no 245/051.}
\item \textit{The graffito is placed on a white smooth ware jug, which can be dated to the pre-Claudian period based on the find context. Bogaers & Haaqebos et al. 1975, 140, 165 (fig. 14.4), 167.}
\item \textit{Find no 402/084.}
\item \textit{Find no 253/143.}
\item \textit{Find no 254/010.}
\item \textit{Find no 258/151.}
\item \textit{Find no 384/165.}
\item \textit{Cf. Mócsy 1985, 60-62.}
\item \textit{Find no 431/067.}
\item \textit{Find no 450/034. The stamp on the sigillata vessel in question allows for a date c. AD 40-65.}
\item \textit{The items carrying the sequence \textit{ivli} are three pieces of Arezzo terra sigillata, registered respectively as 000/091 (with two graffiti \textit{ivli} scratched into it), 383/323 and 431/077.}
\item \textit{Find no 291/075.}
\end{itemize}
in a graffito such as the one found on the Kops Plateau,⁶²⁸ for marking one’s belongings with an extremely common praenomen would not be very effective.

Some nine names may point to the Iberian Peninsula, the most illustrative being a graffito starting with Hispa- on the base of probably a smooth ware flagon,⁶²⁹ evidently short for the geographical designation Hispanus. Vegetus⁶³⁰ and Silo⁶³¹ are cognomina that are often borne by men originating from the Spanish provinces. Additionally, the generally well-known and common cognomina Rufinus,⁶³² Placidus⁶³³, Flaccus⁶³⁴ and Flavus/Flavinus⁶³⁵ may also be associated with this region. Especially Flavus/Flavinus had a remarkable concentration on the Iberian Peninsula during the early 1st century AD. Of these vessels with ‘Hispanic’ graffiti, four can be dated securely to the pre-Claudian period.

Names with a Celtic background are identifiable in a further nine graffiti. The most fully preserved are the names Ollorix,⁶³⁶ Segoma,⁶³⁷ Genatus⁶³⁸ and Sintotalus.⁶³⁹ Ollorix, Segoma and Genatus seem to have a particular Gaulish association. The remaining five graffiti contain sequences that are most probably based on a Celtic stem or suffix.⁶⁴⁰ The chronological range of the vessels in question runs from 10 BC until AD 40. The graffito that presents the name Ollorix also includes a turma indication. This gives reason to suspect that some Celtic men – probably Gauls – served as cavalymen on the Kops Plateau.

Besides the aforementioned men from the western part of the Mediterranean, there are also about five names present with a Greek signature, of which Diodo(rus)⁶⁴¹ and Xantos⁶⁴² are the most complete. The other three names are present in an abbreviated form, recognizable by the specific combinations of certain letters, being Xan-, Hyl- and -thyrus.⁶⁴³ The vessels on which these graffiti are placed, range from the second decade BC to at least the third decade AD. The men who bore the names in question may well have had a background in the eastern Greek-speaking parts of the Mediterranean.

Some names occur more than once, of which Iulius has already been mentioned. In addition, there are three graffiti known that contain the name Clarus, a

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⁶²⁸ Find no 378/205.
⁶²⁹ Find no 379/154.
⁶³⁰ On a pre-Claudian South Gaulish terra sigillata cup Hofheim 5, find no 255/218.
⁶³¹ On an Augusto-Tiberian Arretine terra sigillata dish Dragendorff 15/17, find no 255/257.
⁶³² On a South Gaulish terra sigillata dish, find no 370/209.
⁶³⁴ This applies to two graffiti. One is placed on an Arretine terra sigillata dish, find no 255/136. The other graffito, reading FLAV[---], occurs on a South Gaulish cup Dragendorff 27 stamped by Regenus (NoTS: Regenus, La Graufesenque) and is therefore datable to AD 30-65. For this piece see Bogaers, Haalebos et al. 1975, 165 (fig. 14.5), 167.
⁶³⁵ On a South Gaulish terra sigillata dish Hofheim 1, find no 000/112. The dish can be dated to the years AD 30-65, based on the stamp by Regenus (NoTS: Regenus, La Graufesenque, date: AD 30-65).
⁶³⁶ On a South Gaulish terra sigillata dish Drägerhoff 18, find no 432/016. Cf. Kakoschke 2008, CN 2771 (Segomarus).
⁶³⁷ On an Arretine terra sigillata cup Conscpectus 14, find no 383/264. Genatus is further unattested, but the name is probably related to the cognomen Cennatus, which is known as the name of a potter of South Gaulish sigillata.
⁶³⁸ This name is not further attested. It appears to be composed of the Celtic elements sinto and talo-s. Bogaers, Haalebos et al. 1975, 149, 165 (Fig 14.2). The graffito SINTALI is placed on a terra rubra cup with the stamp SCAN/ETI. The cup was probably produced at Bayeux in the Claudio-Neronian period. Cf. Boucly & Carmelez 1980, esp. 283.
⁶³⁹ This concerns find nos 264/087 (Seniu-, Celtic stem *se-n- meaning ‘old’), 308/014 (*conovi, Celtic suffix (Conovi)?), 403/183 (Sect, *sego- meaning ‘victory, power, strength’), 427/105 (Suithinia, Suit- has only non-Latin solutions) and 430/131 (*soli-, *sol- meaning ‘eye’). For the Celtic associations cf. Evans 1967 and Kakoschke 2007-2008.
⁶⁴⁰ On a Gallo-Belgic terra rubra dish, find no 000/066.
⁶⁴¹ On an Arretine terra sigillata dish, find no 367/004.
⁶⁴² On an Arretine terra sigillata dish, find no 256/218 (Xant-), 293/051 (Hyl-) and 365/008 (-thyrus).
common cognomen with some concentration in Hispania and Italy.\textsuperscript{644} According to Kakoschke, the name is often found among freedmen in northern Italy.\textsuperscript{545} There are no clear indications that the graffiti from the Kops Plateau refer to liberti. Differences in handwriting suggest that the three graffiti were not made by the same person. In two of the graffiti, which are both placed on the base of cups Halten 8,\textsuperscript{646} the name is expressed in the genitive, Clari. The third graffiti displays the name in the nominative, Clarus, followed by iic and a high dot. This second part ec- appears to be an abbreviation, but it is not completely clear of which word. It is possible that the ec- is a variation on eques.\textsuperscript{647} If so, then the graffiti with the text CLARVSIC, incised on the wall of an Arretine cup Halten 7,\textsuperscript{648} indicates that there was cavalry present on the Kops Plateau in the Augusto-Tiberian period. The potentially added designation of ‘trooper, cavalryman’ would make most sense when there was also a Clarus, infantryman present, whose belongings might be confused with those of Clarus, cavalryman. Following this line of thought, it may suggest the presence of a mixed garrison with cavalry and infantry.

The cognomen Firmus appears twice, both instances on Arretine cups Conspectus 22.\textsuperscript{649} It cannot be stated with certainty that both graffiti apply to the same Firmus. Three further graffiti, all reading primi, might refer to a single person, but in view of the frequency of the cognomen Primus and of many Latin names starting with Primi- this is not very likely.\textsuperscript{650} Variation can of course also occur in graffiti written by the same person, but in these cases there is not enough reason to assume that the respective graffiti were written by only one Firmus and one Primus.

In addition to finds from the military settlement on the Kops Plateau itself there are several ceramic vessels with graffiti from the associated cemetery to its southeast known as Kleine Kopse Hof. First to be mentioned are two smooth ware flagons that each carry a name graffiti. Both flagons belong to the type Stuart 101, which can be dated to the first quarter of the 1st century AD, early Claudian at the latest. The first flagon has the text BLASTI written on its shoulder.\textsuperscript{651} This can be transcribed as Blasti, the genitive case of the Latin cognomen Blastus. This uncommon cognomen points to the Mediterranean heartland of the Empire. The second flagon carries a graffiti MACERAIANVS on its outer wall.\textsuperscript{652} No parallels for this name are known.

In sum, the graffiti recovered from the Kops Plateau hold various clues to the composition of the Roman army active here. Firstly, a legionary centurio in service of the legio VIII Augusta is attested. However, his presence at Kops Plateau may have been only fleeting, during the Batavian Revolt. Secondly, there are various indications in the graffiti that cavalry was present on the Kops Plateau. The concerning graffiti are all placed on pottery vessels that have been produced before AD 40. The mentioned bronze simpulum may well date to the same period. There are no clear patterns discernible among the various (ethnic) groups of names represented in the graffiti. It appears that the four turmae mentioned by the name of the commanding officers (the decuriones) are four

\textsuperscript{644} Mócsy 1985, 66.
\textsuperscript{645} Kakoschke 2007, CN 839.
\textsuperscript{646} Showing stamps of Ateius (15 BC-AD 30) and Xanthus (5 BC-AD 50+) respectively. See Breuer 1931, 112.
\textsuperscript{647} Similar to ecus being an equivalent of equus (cf. OLD s.v. equus).
\textsuperscript{648} No stamp preserved.
\textsuperscript{649} Find no 260/201, stamped by Albanus, allowing for a date c.10-1 BC (OCK 63, Albanus (4), Lyon, c. 10-1 BC). Breuer 1931, 112 (no stamp preserved).
\textsuperscript{650} The three pieces with a graffiti primi are registered as items 262/179, 370/161 and 426/226. They may be of the same age, but this could not be securely determined due to unidentifiable stamps.
\textsuperscript{651} Inv.no IV a 431. See Stuart 1977a, 98, no 1.
\textsuperscript{652} Inv.no IV a 433. See Stuart 1977a, 98, no 3.
different ones, as the names of the decuriones differ. Whereas cavalry units are thus attested, there are no clear indications for infantry through the use of an inverted C at the beginning of the graffiti texts. However, the presence of duo nomina on some of the early pieces of pottery do suggest that legionary soldiers were stationed on the Plateau at the beginning of its occupation. These soldiers might have been detached from the legionary troops stationed at Vetera I, as tentatively evidenced by graffiti mentioning L. Cominius found at Xanten as well as Nijmegen. Regarding the background of individual soldiers, graffiti found on the Kops Plateau attest to the presence of men from Italy, from the Iberian Peninsula, and from the wider Gaulish or Celtic area. This is corroborated by the coin finds and the terra sigillata stamps from the Kops Plateau.653

Nijmegen-Hunerberg

The Hunerberg was occupied by a succession of legionary fortresses and surrounding civilian settlements (canabae legionis) and cemeteries. Despite their considerable extension, the 1987-1997 excavations of the western part of the Flavio-Trajanic canabae and underlying features of the earlier and larger Augustan military base have produced a remarkably small amount of graffiti.654 Most of the finds date from c. 70-105. Although the bulk of the find material can be attributed to buildings and activities of the canabae, the graffiti are still relevant for the research in question. It may be expected that the divide between army camp and surrounding civilian settlement was easily permeable rather than strictly solid, which is underlined by the occurrence of military indications in some of the graffiti.

In all, 48 graffiti recovered during the 1987-1997 excavations are name graffiti or include a military indication, or both. Of these 48, eight include a centuria sign, accompanied by the names of at least five centuriones. Certain are the three cognomina Paul(l)us, Silvinus and Proculus, of which Paullus and Proculus appear more than once in the said 48 graffiti.655 Two further names of centuriones are more fragmentary, but can be provisionally restored as Blandus and C(a) epula.656 The names of the remaining centuriones are not (completely) preserved. Paullus and Blandus are common Latin cognomina, and Proculus is even more widespread. Silvinus is also a common Latin cognomen, but it is particularly strong in southern Gaul. Caepula, on the other hand, is a rare cognomen, pointing to Italy. In one graffito in which the name of the centurio is not preserved, the centuria sign is preceded by oricula.657 Oricula, as a variant of Auricula, might be the name of the common soldier serving under the command of a further unknown centurio, although the use of the nominative is unusual as is the place of the name of the soldier preceding the centuria sign. Perhaps the name is a reference to a higher commanding officer rather than the name of the subordinate soldier. Since the graffito is not completely preserved, a definitive interpretation cannot be given.658

The most extensive of these graffiti with centurio names tells us that a soldier named Macedo (maciidonis) served under the command of a centurio Paullus

653 Visser 2014, 139.
655 Centurio Paullus will be discussed in more detail below. The name Proculus is present in a second graffito from the 1987-1997 excavations; this could be the same centurio, but a centuria sign is in the second case not preserved. Find no 044/04989. Centurio Silvinus: find no 017/01184.
656 > bland[---] / d[---]: find no 038/04329. cepv[---]: find no 119/09502.
657 Find no 029/03462. The graffito is placed on a wall fragment of a smooth ware flagon.
658 Kakoschke (2008, CN 2245, item 1) mentions a legionary tribune called C. Coruncanius Oricula, who served with the legio XXI Rapax in the German provinces during the first half of the 1st century AD. His funerary inscription was set up in Rome (CIL VI 3515).
This is not the only fragment from Nijmegen in which these names appear. According to Haalebos, a wall fragment of an amphora found in 1952 at the Barbarossastraat, west of the castra terrain, may also have been inscribed by a soldier Macedo who served under the command of a centurio called Paulus. The graffito >PWL< placed on a wall fragment of an amphora discovered among the remnants of one of the barracks in the western part of the legionary fortress may refer to the same centurio. Haalebos has noted that roof tiles found at Aachen and Bunnik-Vechten show stamps referring to a centuria of Paul(us), as part of the legio X Gemina, working at the Tegularia Transrhenana.

Furthermore, the cognomen Macedo is possibly attested twice among the graffiti recovered during the 1987-1997 excavations.

To continue the list of centurio Paullus, another graffito from the 1987-1997 excavations mentioning a centurio Paulus allows for a tentative date for the presence of Paulus (and therefore Macedo) in Nijmegen. This graffito is found on a Gallo-Belgic beaker HBW 28. This vessel is part of a funerary assemblage which can be dated to the third quarter of the 1st century AD. The complete graffito is somewhat unclear, but it can be interpreted as N(umeri) > (= centuria) PAUL(US) HISP(HANUS). The second cognomen Hispanus signals a connection with the Spanish provinces. This suggests that the centurio Paulus and the soldiers under his command were in Nijmegen shortly after the Batavian Revolt. They most likely were part of the legio X Gemina, which had been stationed in Hispania before it was transferred to Germania inferior around AD 70. This former station can directly account for the presence of a soldier known as Hispanus in the legion’s ranks, although it is questionable how distinctive such a name could have been among the many soldiers who must have been locally recruited while the legion was stationed on the Iberian Peninsula. Another name with a strong Spanish connotation is Aemilianus, which is encountered on a wall fragment of a smooth ware flagon.

A soldier who probably also belonged to the ranks of this same legion is Sextius Bassus, who appears to have inscribed his duo nomina and his designation as a cavalryman on the body of an amphora. The vessel was discovered buried into the floor of a house in the canabae, with its upper part removed. Presumably, the amphora was reused after it had been owned by the man who had carved SIXTI BASSUS into the wall of the vessel. Since any military abbreviation such as a singular T or a centuria sign is lacking in this completely preserved graffito, it may be concluded that SIXTI stands for the gentilicum of the graffito’s author. His cognomen is Bassus, and he additionally labels himself as a cavalryman by putting UIQ, eq(uitis), behind his name. Sextius and Bassus are both common and widespread names. Sextius is either an originally Italic gentilicum or a so-called pseudogentilicum (derived from Sextus) of native stock. Bassus is originally a name with an Eastern signature. The vessel can be identified as a Spanish olive oil amphora, but cannot be dated with tolerable precision. Given his duo nomina, Sextius Bassus most likely served in the cavalry segment of a legion.

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659 > PAULI MACEDONIS inscribed on the rim of an amphora Dressel 20 (find no 000/00514).
660 The graffito is only partially preserved, without a centuria sign and with only part of the first letter M of the assumed soldier’s name. See Haalebos et al. 1998, 28-29, afb. 18,2.
661 Haalebos et al. 1998, 28-29, afb. 18,3.
663 The graffito remnant [-] [ONIS / [-] found on a wall fragment of smooth ware (find no 038/04299).
664 Find no 114/08743. See also Haalebos et al. 1998, 26-29.
665 Find no 084/08625.
666 Haalebos et al. 1998, 42-46.
667 Kakoschke 2006, GN 1179.
668 As a rule, every legion counted 120 cavalrymen among its ranks.
citizens served not exclusively in legions. They were also part of auxiliary units, especially those with the (recently appointed) title *civium Romanorum*.669

Another eques may be held responsible for the graffito atti eq, also placed on a Dressel 20 amphora.670 As in the previous case, eq is best understood as the abbreviation for *equitis*. This designation follows his name, which is most likely a cognomen. The best candidates are the name Attius here used as a cognomen, and the cognomen Attus which is probably Celtic in origin.

Also a military indication, but then on the level of ranks, is the designation aquilifer. An aquilifer was the bearer of standard with the legionary eagle. The final part of the text [---]iistris aqv, carved into a medium-sized amphora type Gauloise 4,671 may refer to this legionary rank, although a reference to the Latin word for water, *aqua*, cannot be excluded. The name accompanying this abbreviation is only partially preserved and can be reconstructed as the rare Latin cognomen Equestris.

Regarding duo and tria nomina, only two duo nomina could be recognized. One concerns the already mentioned Sextius Bassus, consisting of a gentilicium and a cognomen. Contrastingly, the other instance of duo nomina, which could originally have been a tria nomina, is constituted by the text l.clo[s?---] on a South Gaulish terra sigillata cup Dragendorff 27.672 The gentillicium may be reconstructed as Closinus, further attested only once in Gallia Lugudunensis, but as the s is uncertain, the more popular Clodius or something similarly starting with Clo- is also an option. To these duo nomina, two probably fragmentary duo or tria nomina can be added. Both graffiti in question are not complete, but nevertheless the gentilicia (H)elvius, on an amphora Dressel 20, and Hort(enu)s, on a fragment of white smooth ware, could be recognized.673 Both names have a Mediterranean signature.

Most of the remaining single names in the graffiti from the Hunerberg can be classified as Latin cognomina. The name Silvanus is common and cannot be appointed to a specific region.674 Iulianus is even more common, but appears strongly in the Celtic provinces.675 The equally popular Valens, possibly attested twice in this dataset, has a focus along the Danube.676 Especially well represented in the frontier region, from northwest to southeast, are the common cognomina Crispus and the less popular cognomen Apollinaris.677 A southern, Mediterranean signature applies to the common cognomina Serenus and Secundus/-inus, the less common Acutus,678 and what appears to be a Latin cognomen ending in -ptatus.679 The graffito remnant sext[---] probably refers to the common name Sextus or to the less common Sextinus, which has a strong presence in the Celtic provinces. The Latin cognomen Tutus is not so common, but it does also appear

669  See the section on auxiliary recruitment, p. 55.
670  Find no 024/02291.
671  Find no 083/08723.
672  Find no 016/00887.
673  [---]helvi ma[x?---]: find no 042/04776. [---]hortus[---]: find no 074/08270.
674  silv a[n---]: find no 021/02548.
675  [---]villani: find no 018/01853.
676  Cf. Mösy 1985, 63-64. valenti[ae?]: find no 021/02610. valent[---]: find no 030/03868.
677  Cf. Mösy 1985, 64. [---]apollinaris[---]: find no 018/01879. [---]apollinaris[---]: find no 035/03527. It may be tempting to associate the name Apollinaris with the legio XV Apollinaris, but this legion has – as fas as known – never been sent to the German provinces.
678  siiriini: find no 020/01614. [---]secvnd[---]: find no 039/04597. acutus: find no 021/02610.
679  [---]ptati m iii s: find no 083/08723. Please note that the sequence *ptat* is followed by *m iii s*, what seems to be an indication of capacity, i.e. 3.5 modii or c. 30 litre (*modus italicus a*: levelled volume) resp. 37 litre (*modus italicus b*: heaped volume). The average volume of this type of middle-sized amphora (Gauloise 4) varies between these two values. Cf. Weiß-König 2010, 67-68, 252-253, table 31-32.
in brick stamps of the *legio X Gemina* at De Holdeurn.680 This may well be the same person. Rare is the earlier mentioned Oricula, variant of the equally rare (male) cognomen Auricula, meaning ‘little ear lobe’.681

Two graffiti may include names belonging to two women, but in both cases the interpretation is uncertain. On a South Gaulish terra sigillata cup Dragendorff 35 the graffito *pietas* can be read.682 Pietas, meaning ‘loyalty’, is attested as a cognomen, but only rarely and apparently not only as a name for women but also for men. It must be noted that the name Pietas was also carried by a goddess who personified the cardinal virtue of loyalty and piety. The use of the nominative in this graffito, which is uncommon for owners’ marks, might indicate that it was used to mark the vessel as a dedication to this deity, but dedications are normally expressed with the dative case. Another graffito that might best be associated with a female owner reads *[---]*avila[---]*, which is inscribed on a two-handled flagon.683 These are two rare examples of 1st century graffiti from the Lower Rhine area that, possibly, refer to women.

Other names can be associated with specific geographical regions. To the Iberian Peninsula point the cognomina Aemilianus, Flavus/-inus, Turanus, Vegetus and Vocon(i)us.684 Sosiminus and the earlier mentioned Macedo, both with an originally Greek signature, point to the Balkan region.685 The graffito *sosiminus* is placed on a South Gaulish terra sigillata dish Dragendorff 18 which can be dated to the years AD 65-110.686 Complete and thus clear examples of Celtic names are the already mentioned Attus, Boudus and Senilis.687 Apparently not further attested are Toutico/Touticus and Vecho.688 Incomplete but with a distinctive Celtic signature are *assed[---]*, *biila[---]*, *[---]*erisv[---]*, *[---]*jvilli[---]* and *[---]*riccis[---]*.689 Of these Celtic names, Senilis, Vecho, *[---]*erisv[---]* and *[---]*jvilli[---]* may additionally be classified as Gaulish. The graffito *triviirixx* on a medium-sized amphora holds a reference to the originally Germanic, later Celticized tribe of the Treveri.690 The final *xx* makes it somewhat doubtful whether the graffito is the owner’s mark of an individual person. Even so, it signals a relation with this region.

Two graffiti display what is most likely the genitive case of the rather rare Latin cognomen Caper, meaning ‘he-goat’.691 The name might have a particularly Gaulish association. Remarkably, the name is in one graffito written as *capri* and in the other as *kapri*.692 In the latter case, the graffito also includes an indication

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680 The round stamps in question probably postdate AD 89. Cf. Zandstra & Polak 2014, 230. The graffito in question (find no 020/03221) is placed on a South Gaulish cup Dragendorff 27 stamped by Mommo. NoTS: Mommo (La Graufesenque), date: AD 60-85.

681 See n. 657.

682 Find no 048/05498.

683 Find no 029/03508.

684 According to Moczy (1985, 60) Vegetus is also exceptionally well attested in Gallia Narbonensis. *[---]*aemiliani[---]*: find no 064/08625. *flav*[---]*: find no 027/03043. *virgin*: find no 039/04707. *vocco*: find no 033/03570. The latter is placed on a South Gaulish dish Dragendorff 18 stamped by Primulus i. NoTS: Iullinus i (La Graufesenque), date: AD 65-110.

685 The name Sosiminus remains further unattested as such, but two inscriptions from modern-day Hungary mention the female version of this cognomen, spelled as Zosimena (*RIU*-03, 935 and 1158). 686 Find no 093/06670, on a South Gaulish dish Dragendorff 18 stamped by Iullinus i. NoTS: Iullinus i (La Graufesenque), date: AD 65-110.

687 *atti eq*: find no 024/02291. *bovd*: find no 093/06692. The graffito is placed on the shoulder of a pot of type Stuart 213 A. *sinilis*: find no 100/07710.


689 *assed[---]*: find no 040/04597. *biila[---]*: find no 015/00877. *[---]*erisv[---]*: find no 057/06178. *[---]*jvilli[---]*: find no 013/00186. *[---]*riccis[---]*: find no 037/04261.

690 Find no 033/03641.

691 Alternatively, it could represent the genitive case of the gentilicium Caprius, but this option is less likely.

692 *kapri*: find no 087/09213. *m vii s i kapri*: find no 010/00060.
of capacity (m vi s i, signalling 7.5 modii). The complete text is scratched into the rim of a Dressel 20 amphora. Amphorae of this type had a volume between 6 and 9 modii.693 or between 58 and 80 litre.694 The other graffito is found on a medium-sized amphora type Gauloise 4. The inclusion of the capacity measurement and the difference in spelling may plead against the interpretation of a personal name. It is however not clear to what the term Kapri/Capri would refer, if not to a person; it seems far-fetched to assume that the amphorae contained goat meat or something related.

Summarising, the graffiti recovered during the 1987-1997 excavations make reference to infantrymen, mainly through centuriones and centuriae, and to cavalrymen, as individuals. The cavalrymen may well have been members of the legionary garrison housed in the nearby castra. Only two complete instances of duo nomina have been counted, including one of a cavalryman, but in the material from other legionary sites duo and tria nomina are not dominant either. As to possible origins or home territories, at least five names have a Gaulish connotation, and an equal number can be associated with the Iberian Peninsula. At least seven names point to the traditional recruiting ground of the early legions in and around Italy. This goes especially for the names mentioned in the graffiti that included centuria signs. Two names point additionally to the Balkan region.

A few more informative name graffiti found on the eastern part of the Hunerberg can be added from the archives of Simon Wynia. Some of them are pre-Flavian rather than Flavian, but their number remains small. Certainly pre-Flavian are the graffiti on two terra sigillata cups Conspectus 22, reading respectively atti and cont.qv[-], and the graffito Domitivs on a Gallo-Belgic terra rubra cup HBW 82a.695 The first graffito may refer to the name Attius used as a cognomen or to the cognomen Attus, which is probably Celtic in origin. The same sequence has been been noted on another piece from the Hunerberg, recovered during the 1987-1997 excavations.696 cont.qv- is best explained as a reference to a contubernium linked with a (personal) name starting with Qu-. Contubernia are subunits of both cavalry and infantry units. The graffito on the terra rubra cup can be interpreted as the cognomen or possibly gentilicium Domitius, thus written in the nominative case. It probably signals the presence of a person originating from the Mediterranean region. It is further likely that the graffito IVLLI placed on a terra sigillata cup Dragendorff 24/25 also dates to the pre-Flavian period, although some vessels of this type are found in Flavian contexts.697 The cognomen Fulus is Celtic in origin as well, and suggests another relatively early Celtic connection. More common are two graffiti found on pieces of pottery that more broadly date from the 1st century AD. The Latin cognomen Calvus, inscribed as calvi onto a terra sigillata dish Dragendorff 15/17, points to the Mediterranean region.698 Far more common and widespread is the Latin

693 Here the modius variant italicus a is meant, which is the levelled version. The modius italicus b, on the other hand, is heaped. Cf. Weiß-König 2010, 67.
695 atti: find no Ca 66/180. cont.qv[--]: find no Ca 66/181. Domitivs: find no Ca 60/190.
696 Theoretically, they could refer to the same person, when the Dressel 20 fragment from the 1987-1997 excavations (find no 024/02291; see n. 687) belongs to an early specimen of this amphora type. For now, this could not be ascertained.
697 Find no Ca 64/1523. For the dating argument, cf. Polak 2000, 117.
cognomen Firmus (FIRMI), here encountered on a terra sigillata dish Dragendorff 18.\footnote{Find no Ca 60/404.} A two-lined graffito preserved, albeit incompletely, on the outside base of an Arretine dish presents more difficulty.\footnote{Find no Ca 51/110. Wynia had classified this graffito as ante cocturam, but on autopsy the letters appeared too sharp for a graffito ante cocturam. Thus, it has now been added to the list of post cocturam graffiti.} This does not concern the date of the piece, for its stamp marks the vessel as a product by Euhodus and Primigenius from the later Augustan period.\footnote{OCK 788, Euhodus + Primigenius, Pisa?, Augustan. For the chronology, see Niemeijer 2014, 16.} It is the content of the graffito that is not easy to interpret. The remnant of the first line reads [---] SEVER[---], the second line leaves [---]PECVLI [a?---]. Given the early date of the piece, it is not likely that the two lines must be read as duo nomina, surely not with the pseudogentilicium Severius, as this is derived from the cognomen Severus and appears to be of a post-Flavian date.\footnote{Cf. Kakoschke 2004, 12.} Rather, the first line communicates the very common Latin cognomen Severus, which has a Mediterranean connotation. The second line appears to mention the cognomen Peculiaris, perhaps borne by a soldier under command of the earlier mentioned Severus or vice versa; a centuria or turma sign might have been lost with the fragment having been broken off. Peculiaris is a name not so common and without a clear geographical focus. The second line could alternatively state the rank of Severus, but no military rank title containing -peculia- is known from the available sources.

Dating from the early Flavian period is a graffito on a South Gaulish terra sigillata dish Dragendorff 18.\footnote{Find no CA.1976.661.a. See Bogaers & Haalebos et al. 1980, 55-56, fig. 12,1. The stamp on the dish allows it to be dated in AD 65-85. NoTS: Mont- Cres- (Montius Cres) (La Graufesenque), die 6a, date: AD 65-85.} Into the base the graffito TERTIVS has been engraved. Tertius is a very common and widespread cognomen, but it nevertheless has a predominantly Mediterranean signature. From the same excavations stem three joining fragments of smooth ware showing the graffito remnant [---] CRASSI [---]S[---]VIA.\footnote{Bogaers & Haalebos et al. (1980, 51-53, fig. 9,6) read the text as [---] CRASSI SV[---]VIA.} CRASSI most likely refers to the Latin cognomen Crassus, although an identification with the gentilicium Crassus or Crassius can certainly not be ruled out. The cognomen Crassus is not common; it is especially known from Italy and Gallia Narbonensis.\footnote{Kakoschke (2007, CN 949, item 1) refers to a legionary tribune by the name of L. Iulius Crassus, who served with the legio XXI Rapax on the Rhine before AD 41 (AE 1914, 173). Cf. CIL VIII 15519 and 26547, and CIL VIII 1478 and 26519 (inscriptions found at Dougga, Tunisia).} A third piece showing an informative name graffito consists of a base of a South Gaulish terra sigillata dish datable to the years AD 75-110.\footnote{Bogaers & Haalebos et al. 1977, 113, fig. 9,11. The dish is stamped by L. Cosius Virilis. NoTS: L. Cosius Virilis (La Graufesenque), date: AD 75-110.} The graffito reads VTIRI. It is best interpreted as the genitive case of the Latin cognomen Verus. This name classifies as the earlier mentioned Tertius: a very common cognomen, but with a focus in the Mediterranean region.

Two remaining graffiti found in the eastern part of the Hunerberg are also rather difficult to interpret. The text RESTITVS inscribed onto a terra sigillata bowl Dragendorff 29 must probably be understood as a rare variant of the common name Restitutus.\footnote{Find no Ca 60/246.} Strikingly, four out of the eight inscriptions that appear to mention the variant Restitus are from the African provinces.\footnote{Based on the data available in EDCS.} Probably incomplete is the graffito TIANADIVTORIS placed on a terra sigillata
The first four letters of the graffito are most likely the final part of one of the many Latin cognomina ending in -tianus. There are also a few gentilicia known which end in -tianus, but this solution is less likely. The second part of the graffito is the genitive case of either the proper name Adiutor or the rank name adiutor. Adiutor as a Latin cognomen is fairly common and widespread, but it has an especially strong presence in Gallia Belgica, the German provinces and in Noricum. Adiutor as a rank name was carried by certain assistants in the Roman army. Adiutores in the early Roman army belonged to the subordinate administrative personnel. These soldiers were tasked with the most basic jobs to assist others. Apart from these name graffiti the combination l.x.g inscribed onto a mortar, according to Wynia, confirms - albeit somewhat superfluously - the presence of men from the legio X Gemina on the Hunerberg.

From the 1979 excavations on the eastern side of the Hunerberg two informative name graffiti are worth mentioning here both datable to the Flavian period. Onto the base of a South Gaulish terra sigillata dish the remnants of what appears to be the cognomen Fortunatus are inscribed. Fortunatus is a very common and widespread cognomen, but with a concentration in the Mediterranean heartland of the Empire. The other graffito is found on the base of a South Gaulish Dragendorff 27. This graffito starts with a centuria sign; the following sequence tcvpt appears to be strongly abbreviated. At first sight, duo nomina seem to be communicated, starting with a singular t for the praenomen and then the combination cvpt for the gentilicium Cupitius. But Cupitius is a so-called pseudogentilicium, a phenomenon that generally postdates the Flavian period. The graffito can therefore better be interpreted as the owner’s mark of a soldier named Cupitus serving under the command of a centurio who is identified by just the singular letter t. The originally Latin cognomen Cupitus is particularly popular in the Celtic regions, especially in Noricum.

When considering these graffiti from the Hunerberg together, there appears to be a Celtic connection for especially the pre-Flavian period, whereas the graffiti from the Flavian period are characterised by mostly common and widespread Latin cognomina. As far as can be ascertained, this pre-Flavian Celtic connection postdates the early Augustan occupation of the site. It is possible that the graffiti on vessels later than the early Augustan phase but earlier than the Flavian phase of military activity on the Hunerberg relate to soldiers from the nearby Kops Plateau. There are however indications that a reduced, ‘maintenance’ garrison may have been accommodated here after 16/12 BC. It has also been suggested that the site of the former Augustan base was re-used during Germanicus’ campaigns of AD 14-16. Soldiers originating from the Mediterranean may have been part of the late Augustan or early Tiberian garrison, as suggested by the graffito which mentions a Severus and a Peculiaris. Apart from the explicit mention of the legio X Gemina (for the Flavian period), only one further military indication – for infantry – is given. Notably, the centuria sign in question is found on a piece of Arretine ware postdating the early Augustan phase of the

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709 Find no Ca 63/1368.
711 Find no Ca 59/78.
712 [---]ortvnat[---]: find no Ca 156/4.
713 ) tcvpt: find no Ca 150/11. The stamp on the cup allows it to be dated in AD 60-85. NoTS: Mommo (La Graufesenque), die 9c’, date: AD 60-85.
715 Mócsy 1985, 59.
716 E.g. Niemeijer 2014, esp. 19, 35; Polak & Kooistra 2013, 426.
Hunerberg fortress. Sets of duo nomina or explicit gentilicia that might have underlined the presence of legionary soldiers are lacking.

This image is strengthened by graffiti on other ceramic vessels from the area. In his study of the pottery from the legionary camp and the surrounding cemeteries, Stuart lists a further 63 graffiti, of which a small number are relevant to the research question at hand. Based on their findspot near or in the Flavio-Trajanic legionary fortress and on their dating in the same period, five smooth ware flagons type Stuart 106/107 carry name graffiti that in theory may relate to soldiers or veterans of the legio X Gemina, or their relatives. The first graffito appears to include a centuria sign. Although Stuart transcribed the text as *iretici*, it is probably better read as *riitici* or perhaps *critici*. In both cases, a centuria sign is followed by a geographically derived name in the genitive case. The first suggestion interprets the name as R(a)eticus, probably referring to Raetia north of the Alps, enclosed by the rivers Danube, Rhine and Lech. The second suggestion opts for the solution Creticus, which would point to the Greek island of Crete. Either way, it signals the presence of infantry and of somebody (i.e. the centurio in charge) with a non-local but also non-Italic background. A similar flagon carries the graffito *marvlli*. Marullus is an originally Celtic cognomen, with a relatively strong presence in the Spanish provinces. A third flagon carries a graffito which includes the common and widespread Latin cognomen Verecundus. The text *vericci*, inscribed on yet another flagon, is not further attested, but it hints with its ending in –iccus at a Celtic background. A fifth flagon shows the graffito *vibvlli* on the base, referring to the rather rare Latin cognomen Vibullus.

Two contemporary two-handled flagons also carry informative name graffiti. On the neck of what was probably a flagon of type Stuart 132 *pomintini* is inscribed. Pomentinus is so far only known as a Latin gentilicum with a small number of attestations mainly in Italy and the Balkan Peninsula. The shoulder of another two-handled flagon of type Stuart 132 has two graffiti inscribed; one reading *valeri vitvli* and the other *max[---]*. The first graffito suggests that the (first?) owner of the flagon was a Roman citizen. Whereas Valerius is a common and widespread gentilicum, the Latin cognomen Vitulus is most popular in Italy and the Spanish provinces. In sum, the recorded name graffiti on Flavio-Trajanic flagons attest to the presence of infantry and of men from regions bordering the Mediterranean Sea and the (southern) Celtic regions. This impression ties in with what is known from inscriptions about the origins of the soldiers serving in the legio X Gemina in the Flavio-Trajanic period in Nijmegen, because cities and regions now located in southern France, northern Italy and Spain are mentioned in those inscriptions.

Supplementary to these ceramic finds with graffiti, a small number of metal objects found on the site of the castra and canabae carry graffiti that are relevant to the study at hand. Clear by its reference to the legio X Gemina, a bronze tabula ansata voices the ownership of Amonius Iullus under the command of centurio

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718 Inv.no IV a 414. See Stuart 1977a, 98, no 2.
719 Inv.no Ca. 3183. See Stuart 1977a, 98, no 4.
723 Inv.no IV 689. See Stuart 1977a, 98-99, no 6.
724 Please note that Pomentina is also used as an alternative to Pomptina, the name of one of the voting districts (tribus Pomptina). Cf. Stuart 1977a, 99, with note 313.
725 Inv.no IV 560. See Stuart 1977a, 99, no 7.
726 Cf. Haalebos & Thijsen 1977, 104, fig. 4, c.
Cinna through the three-lined punched graffito LXG / > CINNÆ / AMONI IVLLI.\textsuperscript{727} The centurio Cinna might be the same as the one mentioned in a funerary inscription set up for a soldier of the legio X Gemina in Carnuntum/Deutsch-Altenburg, where the legion was stationed from AD 63 to 68.\textsuperscript{728} Cinna is a rather uncommon Latin cognomen. Amonius, or rather Ammonius, is considered to be either an Italic gentilicium or a native pseudogentilicium derived from the Celtic cognomen Ammo. Kakoschke thinks that in this case from Nijmegen, the name belongs to a person from Italy, or possibly the Iberian Peninsula.\textsuperscript{729} But since the cognomen Iullus is Celtic in origin and has a relatively strong occurrence in the Gaulish provinces and Germania superior, it might indicate that the bearer of this duo nomina is rather from Gaul.

Another bronze tabula ansata, recovered during excavation of the area in which amongst others the officers’ quarters of the Flavian fortress were unearthed, includes multiple references to personnel of the legio X Gemina. Both sides carry punched inscriptions. The front side shows four lines of text. Although almost half of the text is lost, the remainder leaves enough to reconstruct the last of the four lines as GEM, for Geminae. As a whole, the ad punctum inscription reads M.S[---] / TRATE[---] / LIFER[---] / GE[---]. Bogaers suggested that the text refers to ownership by a Marcus S- Strategius, who was aquilifer (legionary standard-bearer) of the legio X Gemina.\textsuperscript{730} The reading of the cognomen is unsure, if only because the name is so far only known as gentilicium.\textsuperscript{731} Still, the sequence TRATE has a particularly Greek connotation, hinting at a connection with the eastern Mediterranean. The text on the back side is considered to be secondary to the one on the front side. It is also less well executed, and therefore more difficult to read. According to Bogaers it reads > FLAVIAMADIS A/CIL SECUNDI, indicating ownership by an Acilius Secundus from the centuria under command of Flavius Amadis, with question marks placed behind the reconstructed gentilicium Acilius and cognomen Amadis.\textsuperscript{732} Bogaers comments that he finds the interpretation Amadis as well as Strategius hardly satisfactory. If we nevertheless accept this as the best possible reading of the text, then we can conclude that both the common soldier and the centurio use their duo nomina, which ties in with their assumed service as legionaries with the legio X Gemina. The centurio has a very common and widespread gentilicium, Flavius, but if his cognomen is correctly understood as Amadis, then this is probably not a Latin but rather a Celtic-Gaulish cognomen. Acilius, the presumed gentilicium of the subordinate soldier, points to

\textsuperscript{727} Find nos Ca 61/478 and Ca.1961.781. AE 1979, 416. The piece is dated to the years AD 71-86 because the honorary titles pia fidelis are not mentioned, but these could also have been omitted because of redundancy or limited space.
\textsuperscript{728} AE 1929, 191.
\textsuperscript{729} Kakoschke 2006, GN 72, no 1.
\textsuperscript{730} Inv.no Ca 65-1678 and Ca.1962.872 (Museum Het Valkhof). For Bogaers’ interpretation, see Bogaers 1962, *80.
\textsuperscript{731} Cf. CIL II 2699.
\textsuperscript{732} Bogaers 1962, *80.
the southern, Mediterranean region, whereas his cognomen Secundus is very common and widespread.

Found on the western part of the Hunerberg, but without precise context information, is a bronze *perpendiculum*, a plumb-bob used in measuring distances. On the top it carries a rather long sequence of punched letters (fig. 15). These can be read as follows: > creperi > senti.corneli adivt. On the side, a further graffito has been inscribed, reading > rvtli (fig. 16). What catches the eye, is the threefold use of a centuria sign on this one object. The owner or owners of this piece of equipment apparently served under three different centuriones. The most plausible scenario, based on the structuring and positioning of the text, is that a soldier named Cornelius Adiutor served first under the command of centurio Sentius, then centurio Creperius and finally centurio Rutilius. All three centuriones are named by their gentilicia, which is rather unusual. Creperius, or rather Crepereius, has a strong distribution in the south, particularly in Italy and North Africa. Rutilius also points to the southern provinces. Sentius, on the other hand, is a rather common and more widespread gentilicium ofItalic origin. The name of the owner (or user) of the plummet appears to be expressed through both his gentilicium and his cognomen. Again, the gentilicium Cornelius is very common. The cognomen Adiutor is less ordinary, with a relatively high occurrence in Noricum. It is also possible that the last sequence *adivt* stands for the rank name of adiutor. If the latter reading is correct, then there is no individual owner named by his proper name, only a generic adiutor assisting three (subsequent?) centuriones. This would fit an instrument that will rather have been commonly than privately used. The graffiti on this plummet confirm the presence of legionary forces in this part of Nijmegen, given the centuria indications and the southern connotations of the gentilicia of the centuriones. Unfortunately, the object itself is not easy to date, but it appears that the few plummets known from early Augustan sites are somewhat cruder in form. This plummet is more likely to have been used by legionary troops present on the Hunerberg in the late 1st century AD, since evidence for later military activity on the Hunerberg is thin. Possibly the *adivt* from the graffito on the earlier described Dragendorff 18 dish from the Hunerberg is the same as the *adivt* mentioned here.

Finally, two bronze lorica hamata fasteners found on the Hunerberg show an inscription. One piece stems from the western side of the Hunerberg, as a stray find. Such S-shaped fasteners may be dated to the Augustan period, perhaps Tiberian at the latest. This piece carries a graffito that is not particularly clear, but may probably be interpreted as > mar q antoni. The most likely solution

733 Inv.no BE.VIII.33. The plumb-bob was probably found with the demolition of the 19th century fortifications on the western side of the Hunerberg. Pers. comm. L. Swinkels.
734 Contra Abeleven & Bijleveld 1895, 143, no 33; there the graffiti are transcribed as (enti)cornella divtr[ and (jrvfci or) jrvfo.
735 Kakoschke 2007, CN 39.
736 See above, n. 710.
737 They fit in, again, with the distribution of the origins of soldiers from the legio X Gemina as mentioned in some of the inscriptions found at Nijmegen. Cf. Haalebos & Thijssen 1977, 104, fig. 4, c.
738 Excavations 1987-1997, find no 000/00277.
would be that this is the mark of Quintus Antonius who served under the command of centurio Marcus. The interpretation of the names may be uncertain, but the centuria sign at the beginning stands beyond doubt. The other fastener with inscription from Nijmegen was found at the northern edge of the Hunerberg. This fastener is of a rare type, with a square base showing multiple rivets. It might date back to the Augustan period, but a Flavian date is also possible. Because of the rarity of this type, it is difficult to date this piece more precisely. On the upper curvature of the fastener a short graffito has been punched, reading > svper. Super is a popular Latin cognomen, but it has – in the mainly younger monumental inscriptions – a remarkable strong appearance in Germania inferior. Again, the centuria sign at the beginning of the graffito indicates an association with infantry soldiers.

Nijmegen-Museum Kamstraat

In the Museum Kamstraat part of a large cemetery has been located which is assumed to have been used by people living in the civil settlement Oppidum Batavorum. These people probably included veterans and relatives of the soldiers stationed at Kops Plateau. This assumption can be supported by a graffito from one of the graves of the cemetery. It is placed on a South Gaulish terra sigillata dish Dragendorff 15/17, stamped by Scottius and therefore datable to c. AD 20-45. The graffito consists of the sequence trvcapito. Although there are several names that start with the letters Tru-, the analogy with other pieces makes it more likely that this graffito starts with a singular T as an abbreviation for turma. The last part of the graffito consists of the full cognomen Capito, in the nominative case. Capito is a very common cognomen. With this name written in the nominative and the first letter accepted as the abbreviation for turma, the part directly after this abbreviation should be expressed in the genitive. However, this part is also abbreviated, as Ru-. This suggests that it stands for a well-known name, and probably a cognomen as well, such as Rufus. The graffito is therefore best transcribed as t(urma) Ru(fi?) Capito. It implies that the person buried in the grave from which the terra sigillata dish was recovered, once served in a cavalry unit, or had relations to such a person, and this interplay can be dated to roughly AD 20-45. The question whether this cavalry unit was stationed at the nearby Trajanusplein site or somewhat further away, perhaps at the Kops Plateau, remains unanswered for now.

Finds from the graves of this cemetery, which can all be dated to roughly the 1st century AD, show more informative name graffiti, although these cannot be directly or explicitly related to the military. Whereas Vita(lis), Luci(us) and Iulius represent common Latin names without a specific area of distribution, a larger group of names points to various regions of the Empire. To begin with, Anic placed on a terra sigillata cup Dragendorff 27 most likely derives from the originally Greek name Anicetus, although the (cognomen) Anicius must also be taken into account. The text calabri is derived from the the name of the region

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740 Pers. comm. M. Wijnhoven (VU University Amsterdam). Find no Ca 61/535 (trench VIIa). A set of similar fasteners has been found on the western side of the Hunerberg (excavations 1987-1997, find no 035/03945), in the fill of what is classified as a Flavian pit.


742 Van Enckevort & Heirbaut 2013, 105.

743 Inv.no I c 95. See Stuart 1977b, 70, no 28. NoTS: Scottius i (La Graufesenque), die 29b.

744 See Bloemers 2016, 40-51 for a description of the site. It includes a reference to a difficult to read graffito. Hence, this graffito is not discussed in this overview.

745 Stuart (1977b) lists in total 50 graffiti on pottery from this cemetery.

746 Inv.no I c 46, m 1418 and I c 65. See Stuart 1977b, 69-70, nos 10, 16 and 22.

747 Inv.no 12.1952.27. See Stuart 1977b, 70, no 32.
of Calabria, situated in the south of Italy. The graffito, given the spelling as the male genitive case, probably refers to a person originating from this region, who inscribed his name onto the shoulder of a smooth ware flagon type Stuart 101, dating to the years before AD 40, or the early Claudian period at the latest. The same name occurs on a flagon of the same type, that has been found on the Sint-Canisiusseiling, somewhat west of the cemetery. Both graffiti appear to have been made by the same hand. On a South Gaulish terra sigillata dish Hofheim 1, stamped by Maccarus and therefore datable c. AD 30-65, the remainder of a graffito CAM[---] can be read. Names starting with Camu- are probably Celtic in origin. The next graffito, reading NEBERI, is not easily interpreted, but it might be the genitive case of the rare cognomen Neber, which is attested only once, in Rome. The name is inscribed onto the shoulder of a smooth ware flagon type Stuart 106, which can be dated to the Flavio-Trajanic period. Another South Gaulish terra sigillata dish stamped by Maccarus, a Dragendorff 17 datable c. AD 30-60, carries the text NVMIIRIV[---]. Most likely, the name used in this text is the cognomen Numerius, although the name is better known as a praenomen or a gentilicium. As a cognomen, it is attested on the Iberian Peninsula, in Pannonia and in Moesia superior. In this graffito, it appears to have been written in the nominative. Finally, SOLIMARI is probably best understood as the genitive case of Solimarus, an originally Celtic cognomen which concentrates in the southern Gaulish regions. The graffito is found on an Arretine dish Conspexit 18 stamped by Cn. Ateius. In sum, the graffiti from this cemetery point to several regions of the Empire, notably the regions bordering the Mediterranean Sea. It cannot be stated with certainty that the people who wrote these graffiti were veterans or relatives of soldiers stationed nearby, but it is very likely. It may therefore be assumed that at least some of the soldiers stationed at perhaps the Trajanusplein site or the Kops Plateau had a Mediterranean or more northern Celtic background.

**Arnhem-Meinerswijk**

Only a small number of graffiti on pottery has been recovered during excavations at the site of this fort. One graffito is worth mentioning here. It is found on a shoulder fragment of a smooth ware flagon, from a context dated to the second decade of the 1st century AD. The text is not very clear, mainly because it is damaged and broken off at the beginning. It has been read as > LIVCV, with the subsequent interpretation (centurio) leg(ionis) V [Alaudae]. This reading must however remain tentative. A second possible reading and interpretation has been presented as well: L III C Y. The final CY could then refer to the name Cyrenaica, but this option is not deemed very plausible by Willems. He concludes that the first reading cannot be taken as definite either. The suggested reading of first a centuria sign and then the name of the legion would be highly irregular, for in principle centuria signs in graffiti are followed by the name of the commanding centurio. Even if (centurio) leg(ionis) V [Alaudae] is the correct reading, it must mean that a further part of the graffito is missing, for this text on its own is hardly

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748 Inv.no IV a 175. See Stuart 1977b, 70, no 40.
749 Inv.no I e 55. See Stuart 1977b, 69, no 17. NoTS: Maccarus i (La Graufesenque), die 4a, date: AD 30-65.
750 AE 1977, 77.
751 Inv.no IV a 38. See Stuart 1977b, 70, no 47.
752 Inv.no NS 707. See Stuart 1977b, 69, no 18. NoTS: Maccarus i (La Graufesenque), die 4a, date: AD 30-65.
753 Inv.no I c 78. See Stuart 1977b, 69, no 2. The stamp could not be securely identified with a specific die, but a date c. 15 BC to AD 20 may be assumed for this piece.
754 Willems 1984, 173.
755 Willems 1984, 174-175.
a clear or unique identifier. It is therefore far from certain that the graffito refers to the presence of legionary soldiers at Arnhem-Meinerswijk. The centuria sign also remains doubtful, because this part of the graffito is considerably damaged.

**Maurik**

The numerous dredge finds from Maurik include two 1st-century objects with graffiti. On the outer piece of a bronze casserole handle, a punched inscription has been applied. The letters are positioned anticlockwise in a semi-circle around the small hole in the disc-ended handle. The name or names in the inscription cannot be identified with certainty, but tentatively the inscription can be transcribed as *T.stae[--]sati*. What is clear is that the inscription starts with a singular T. As mentioned before, singular T’s at the start of graffiti are to be interpreted rather as the abbreviation of turma than as the abbreviation of a praenomen (i.e. Titus). In this way, this graffito tells us that cavalry was present at Maurik at some point in time. As casseroles with similar disc-ended handles are generally dated to the period of c. AD 55/60 to AD 90/120, it may concern cavalry present in the 1st century, but it is not unlikely that such casseroles were in longer use. Brick stamps attest to the presence of the *cohors II Hispanorum equitata* at Maurik. Another partly-mounted unit is mentioned in the graffiti on the second object discussed in this section.

Two inscriptions have been punched on the everted rim of a biconical bronze bucket with a high shoulder found in 1972. The first reads *firmi . contvbarnio . maximi. coh. ii. t*, which can be transcribed as *(centuria) Firmi contubarnio {sic} Maximi coh(ortis) II T(hracum)*. Thus, this inscription tells us that infantry members of the *cohors II Thracum* were at some point present at Maurik. Firmus and Maximus are both very common cognomina. The second inscription refers to more exotic names. It consists of the text *cris . con . cvsioni*. This can be transcribed as *(centuria) Crispi (or Crispini) contubernio Cusioni*. Crispus as well as its derivative Crispinus are common cognomina. Cusio, however, is not further attested. This cognomen is probably Celtic in origin. The bucket, a so-called Östland bucket, is of the type Eggers 39 (the Juellinge type). These types of buckets are broadly accepted to originate from Italy. Their production is concentrated in the 1st and 2nd centuries AD, but possibly they were still produced in the 3rd century. In the past, the *cohors II Thracum (equitata)* was assumed to have been stationed at Maurik from about AD 70 until 83, but more recent diploma finds attest to the presence of the unit in Germania inferior in AD 98 and AD 101. Brick stamps and the inscription on the bucket from Maurik are taken as evidence for a station on this site on

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756 According to the documentation in the archives of Bogaers, the bronze handle fragment was, at least in 1973, part of a private collection.
758 Haalebos 2000, 52.
760 Koster 1997, 64.
761 Bogaers 1974b, 448-452; Bogaers & Rüger 1974, 68.
the Lower Rhine during the Flavian period. A starting date of just after the Batavian Revolt is supported by the coins found at Maurik.

**Bunnik-Vechten**

Fectio is one of the richest sites in the research area, with a large yield of graffiti. Almost 900 graffiti have been recorded on stamped terra sigillata vessels recovered from Vechten alone. Most of these graffiti consist of only simple markings, but some of them are extensive and complete enough to provide us with clues about the garrison of this site on the Lower Rhine.

Relevant to this study are 81 graffiti on 1st-century pottery and metal objects, with the majority being placed on terra sigillata vessels. Thirteen of these belong to six sets of practically identical graffiti that appear on various vessels. Most of the matching graffiti are on vessels that date roughly to the same period, but one set appears on respectively an Arretine vessel with a maximum date of AD 10 and on a South Gaulish vessel with a minimum date of AD 40. Although somewhat improbable, this gap of thirty years could be explained through an extended service time of a Roman soldier. On the other hand, the name mentioned in the graffiti is the common Latin cognomen Crispus or possibly Crispinus, which also allows for the identification of two separate owners.

Another conspicuous set of matching graffiti are the ones probably referring to somebody called Suc(e)essa or, less likely, Vosucessa or a name similarly ending in -cessa. Successa is the female version of the common Latin cognomen Successus. Both graffiti appear on South Gaulish terra sigillata dishes from the years AD 50-70. Did they belong to a woman living in the vicus, or perhaps in the fort? Such a name ending in -essa or -issa is not per definition attributable to a female. Since it is unlikely that a woman needed to mark her belongings in this setting, as opposed to the common soldiers living together in the barracks, the graffito in question might rather refer to a man than a woman.

The only rank name mentioned in the graffiti is that of bucinator, a ‘trumpeter’, indicated by the abbreviation bv. It occurs twice, in both cases accompanied by the genitive of the very common Latin cognomen Crescens. The two graffiti are practically identical, and thus mark two vessels as the property of a trumpeter named Crescens whose presence at Vechten can be dated to roughly AD 100-120. Bucinatores are found in legions as well as auxiliary units, and among infantry as well as cavalry, so these graffiti do not inform us in detail on the nature of the garrison.

Three other graffiti with military indications are more illustrative. It concerns one graffito with a centuria sign at the beginning punched on the handle of a bronze casserole, and two graffiti referring to a turma on two vessels of South Gaulish sigillata. The bronze handle can roughly be dated to the 1st century AD. On the underside it shows multiple lines of text, which are difficult to read.
Clearly discernible, however, is the centuria sign at the beginning of the first line, followed by what appears to be bassi. This may be interpreted as the genitive case of the common Latin cognomen Bassus. The graffito thus attests to the presence of infantry during the 1st century at Vechten.

More informative are the two graffiti referring to cavalry. One can be found on the external base of a South Gaulish terra sigillata dish Dragendorff 18, which can be dated to AD 85-110. In the centre, inside the foot ring, the letters Victor have been incised anticlockwise. These letters are partly encircled, still inside the foot ring, by T. Flore.Flavini, also written anticlockwise. As Victor is expressed in the nominative, we may presume that he was the owner of the dish. Flavini may without a doubt be interpreted as the genitive case of the cognomen Flavinus. This means that the combination Flore, separated by a demarcation mark, probably stands for a gentilicium, namely Florentinius or Florentius. The position of the remaining singular T, in front of two name components, argues for an interpretation as a praenomen, namely Titus. However, tria nomina as such are very rare in graffiti. If one encounters them, they are predominantly placed on very early pieces. In addition, when the T would stand for a praenomen and the sequence in question would express tria nomina in the genitive, it would also imply that Victor himself belonged to this Titus, as a slave or libertus perhaps. With the military context of the find in mind, it is more likely that the singular T in this graffito is an abbreviation of turma. That makes for a more plausible relation between the first and the second part of the graffito: Victor will probably have served in a cavalry unit under the direct command of a Florentinius or Florentius Flavinus.

A similar graffito has been found on the base of a South Gaulish terra sigillata dish which can be dated to AD 85-115. This graffito reads tlapidiflv ani. The text may be divided into three parts: a singular T, Lapid and Flvani. The last part is probably to be interpreted as Flavianus, but this name is not further attested as such. The name as written here might also be a misspelled version of the common cognomen Flavianus. The second part of the graffito might be another cognomen or a gentilicium. There is only one name attested that starts with Lapid-, and that is the Celtic-Gaulish cognomen Lapidus. To interpret the second part as the genitive of the cognomen Lapidus seems the best solution. That leaves the singular T. As the graffito further consists of two cognomina, the T can be best explained as the abbreviation for turma instead of the abbreviation of the praenomen Titus. This would again indicate the presence of a cavalry unit. The named decurio, Lapidus, seems then to be of Celto-Gaulish descent, possibly the region of the Sequani. The author of the graffito might have had a more southern background, on the Iberian Peninsula.

To these graffiti on pottery four identical, multilined graffiti appearing on four metal objects can be added. The objects in question are four so-called saddle horns, constituting one set. In principle saddle horns seem to date from the Flavian period at the latest, with the possible exception of one of the two sets found at Newstead. The text on the saddle horns from Vechten reads: T. Calpvrni / ilari . iii / arg . p : : s . s. vii . s. T. Calpurni(i) (H)ilari represents either tria nomina or a turma indication followed by the name of the owner of the saddle. Calpurnius is a common Latin gentilicium, but is also attested as a cognomen in a handful inscriptions. This means that the T can stand for either

768 Registered under Vollgraff no 78 within the PUG collection. It carries a stamp of Celsus ii. NoTS: Celsus ii (La Graufesenque), die 1b, date: AD 85-110.
769 Inv.no II940/5.27 (RMO). It carries a stamp of Maternus ii. NoTS: Maternus ii (Mater-)? (La Graufesenque), die 2a, date: AD 85-115.
770 Considering that cognomina Flavinus and Flavus are particularly well presented in the Spanish provinces, it is highly likely that this would also go for Flavanus.
Titus or turma. The last option seems more likely, in view of parallels in other ownership graffiti with reference to turmae and the general scarcity of tria nomina in graffiti. If we go by this solution, the turma was commanded by a decurio known by the cognomen Calpurnius, and the owner of the saddle was named (H)ilarus. Hilarus is a typical slave name, according to Kakoschke.\(^{772}\) This could entail that the owner of the saddle from Vechten was a freedman, but there are no further arguments to corroborate this. It may be significant that both Calpurnius and Harus (without the H) occur relatively often in Dalmatia. The remaining part of the graffito text probably indicates the (financial) value or price of the four pieces of cavalry equipment, but the text is not completely clear.\(^{773}\)

The probable inclusion of a turma reference in the graffiti on these saddle horns strengthens the idea that this saddle was not used by a mounted member of an infantry unit, but by a member of a cavalry unit.

The two earlier mentioned graffiti on terra sigillata vessels that can both be dated to the Flavian period may hold some further clues to the background of the troops present at Vechten near the end of the 1st century AD. The name Victor is a very common cognomen, widespread across the Empire. But the names Florentinius and Florentius and especially Flavinus cluster in certain areas within the Empire. Kakoschke writes that Florentinius and probably also Florentius are so-called pseudogentilicia belonging to people native to the Gallo-German provinces.\(^{774}\) Flavinus, on the other hand, is a cognomen that was especially popular among men from the Iberian Peninsula. It is very well imaginable that precisely within a community of people in which the name Flavinus occurred multiple times, because it was so popular, the turma indication of this graffito was not limited to only the cognomen but was extended to include also the gentilicium of the decurio. This argues for an Iberian connection for the unit Flavinus was part of. A third indication for an Iberian connection is found on a slightly older South Gaulish terra sigillata dish from the years c. AD 50-75.\(^{775}\) It has on its base the graffito \textit{fvsci} incised inside the foot ring, accompanied by a single \textit{v} outside the foot ring. The name Fuscus has a notably high concentration on the Iberian Peninsula. Perhaps Spanish auxiliary soldiers were already present at Vechten prior to AD 69/70, but as the date of this piece extends into the Flavian period, it may just as well confirm the presence of men from the Iberian Peninsula at Vechten in the Flavian period.

Other possibly Spanish connections can be found in the cognomina Rebuus and Avila, although their character may rather be generally Mediterranean than specifically Spanish. Another attested name with a Mediterranean background is the cognomen Mamus. These names appear on vessels datable to the pre-Flavian period.\(^{776}\) The names Aristus, Anicetus and Euhodus are Greek in origin,

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\(^{772}\) Kakoschke 2007, CN 1524.

\(^{773}\) The combination \textit{trt} could indicate the number of four saddle horns. Next, the combination \textit{arg} \textit{p} may be solved as \textit{argenti pondo}, which can be translated as ‘by weight in pounds’. Normally, one would expect then a numeral to indicate the number of pounds. The four dots after the \textit{p} seem to indicate another weight, in this case expressed in \textit{unciae}. But again, an indicative numeral is absent, unless the next \textit{n} is considered as \textit{semis}, ‘a half’. One of the solutions to the following combination \textit{S S} is \textit{sestertii}, but it is doubtful whether this applies to this instance. The final VII \textit{S} could stand for seven-and-a-half, but it is unclear whether this refers to a (mentioned) weight or currency.

\(^{774}\) Kakoschke 2006, 186, GN 499 and 500.

\(^{775}\) Inv.no VF 2392 (RMO), stamped by Pass(i)enus. NoTS: Passenus (Passienus) (La Graufesenque), die 27a, date: AD 50-75?

embodying a possible connection with the eastern Mediterranean. They are found on pottery from the pre-Flavian period as well.\textsuperscript{777}

One typically Thracian name can be found among the 1st century graffiti discovered at Vechten. This is the name Mucale, incised on a South Gaulish terra sigillata dish Dragendorff 18.\textsuperscript{778} The graffito shows the name in the nominative, written as MVCALE.

Most of the name graffiti presented here contain cognomina, and most of these cognomina can be classified as Latin. A smaller number of cognomina appears to be Celtic in origin, although in most cases the names are only partially preserved. Complete is the graffito ARTV on a South Gaulish dish from c. AD 40-60.\textsuperscript{779} The name Artuus is of Gaulish origin. Another Gaulish connection has already been found in the name Lapidus, on a Flavian dish discussed above. Other Celtic names point in a different direction. Five graffiti contain a possible connection with Noricum, Pannonia, or the broader Danube region. Most notable are a graffito with the cognomen Respectus, which has a concentration in Pannonia and Noricum, and a graffito containing the geographical indication Noric-. The dates of the five vessels carrying these graffiti cover the range of c. AD 30-100, with an emphasis on the Flavian period.

The cognomen Donatus, inscribed on a South Gaulish dish Dragendorff 17a dated to c. AD 25-40, might represent an African connection.\textsuperscript{780} However, the inscriptions from the North African provinces that frequently feature the name Donatus are on average considerably younger. A man from local origin might be Mansuetus.\textsuperscript{781} This Latin cognomen is relatively popular in the Rhineland, but also has a strong appearance in Gallia Narbonensis. The common and widespread cognomen Amandus in its turn is particularly well known from the Celtic and Germanic regions.\textsuperscript{782} Two other graffito appear to point to the northwestern provinces as well, but the names in these graffiti are not completely preserved.\textsuperscript{783} Finally, a graffito reading VICANI probably refers to a vicanus, a ‘villager’, perhaps a man stemming from the local community.\textsuperscript{784} These last five graffiti are found on vessels that cover the period of c. AD 65-110.

Apart from the singular cognomina with potential geographical concentrations, duo nomina and tria nomina and singular gentilicia hold further clues to the background of the people present at Vechten. Duo and tria nomina signal the presence of Roman citizens who in principle served as legionary soldiers, certainly in the early imperial period. This is corroborated by the dates of the inscribed vessels in question, for five graffiti containing the early combination...
of praenomen and gentilicium are found on four Arretine vessels and one South Gaulish cup type Dragendorff 24/25. A sixth example of duo nomina, but in this case consisting of a gentilicium and a cognomen, is inscribed on a younger, Flavian vessel. The two examples of tria nomina are placed on Arretine vessels. One of these includes the imperial gentilicium Iulius, combined with the praenomen Caius and the cognomen Licinus. As Licinus is a rather rare Latin cognomen, the names together suggest the presence of a Roman citizen from the Mediterranean heartland rather than a new citizen from the provinces whose father had recently received citizenship upon discharge from the auxiliary forces. Several originally Italic gentilicia are attested, most conspicuously Antonius, Caedius, Caetronius, Caltius, Hevius, Plotius, Luccius, and Solfius. In addition, a name starting with Mavo- is possibly related to Mavors, the old name of the deity Mars, and probably has an Italic background. The same goes for the rare cognomen Aptus, especially known as a name of slaves and freedmen, with a concentration in northern Italy. These last two graffiti appear on vessels dated to the period of c. AD 25-70.

In conclusion, the graffiti from Vechten attest to the presence of infantry and cavalry, to legionary and auxiliary soldiers, and to men from various parts of the Empire. Whereas the more peripheral regions are more likely to be the homelands of auxiliary soldiers, an Italic background may rather be sought for legionary soldiers. The names with a strong Italic signature together with the instances of duo nomina are indications for the presence of legionary men. Since these indications are mainly found on the earliest of the 1st century pieces of pottery and militaria, it may be surmised that legionary troops were present at Vechten during the first decades of the 1st century. Suggested connections with the more peripheral regions occur on younger, mainly Flavian material. Standing out are a group of Spanish names, in combination with turma indications. Together they might refer to a Spanish cavalry unit stationed in the Flavian period. There may also be an indication for Spanish soldiers present at Vechten in the time prior to that. Connections with other regions of the Empire are mirrored in the graffiti as well. There are possible links with the Greek regions in the East, with Thrace, with the Gaulish provinces and the broader Celtic territory, and perhaps also with Africa. Thus, the graffiti from Vechten are not only large in number, but also large in scope.

**Utrecht-Domplein**

Only five graffiti from the fort at Utrecht-Domplein are informative with regard to the research at hand. These five graffiti, of which none appears to predate AD 40, display no military indications, apart from the possible reference to the rank of optio. Optiones served in infantry as well as cavalry units. In the graffiti at hand, opti is preceded by qvarti, which can be explained as the genitive case of the common Latin cognomen Quartus. Only one other Latin cognomen is attested in this collection, but the preserved name ending -areus is not distinctive enough to draw conclusions about the origin of its bearer. A third graffiti reads iviio-, which may be transcribed as Iulio- and thus may refer to the common gentilicium Iulius, but this interpretation is somewhat doubtful. The two remaining graffiti signal a Celtic connection. The best datable is the graffiti inscribed into a South Gaulish cup Dragendorff 24/25 which hardly shows any

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785  Inv.no VF 2658a (RMO).
786  Inv.no VF 1949 (RMO).
787  Stamped respectively by Secundus and Formosus. NoTS: Secundus i (La Graufesenque), die 2a, date: AD 25-50, and Formosus (La Graufesenque), die 2a, date: AD 40-70.
788  Four of the five graffiti have already been published together (Brunsting & Wynia 1989). The fifth was also found at Utrecht-Domplein in the 1930s but somehow ended up in a private collection.
signs of wear. The inscribed text reads PARISI. There are two Celtic tribes known by the name of Parisi or Parisii, one living on the banks of the river Seine in modern France and the other in the eastern part of modern Yorkshire. The use of this tribesname as a distinctive mark suggests that no other Parisii were in the direct vicinity. That does not rule out the possibility that the owner of the cup served with fellow Gauls or Britons in an originally Gaulish or British auxiliary unit.

The last graffito consists of the text VADINI placed onto a probably South Gaulish terra sigillata dish Dragendorff 18. According to Kakoschke, Vadinus might be a Celtic cognomen. A relation with the Hispanic tribesname Vadienses could be proposed, but is difficult to substantiate.

Apart from the site of the fort, graffiti are also known from the surrounding vicus. The character of some of them makes a connection with the military garrison very likely. During excavations in the 1940s east of the fort, traces of pre-Flavian occupation were discovered. Among these were some dark grey fragments of pottery, of which one showed an incomplete graffito (fig. 17). These dark grey fragments belong to a terra nigra dish, which can be dated to the Claudio-Neronian period. Its anepigraphic stamp is a rare in planta pedis-stamp, which indicates that the plate has probably been produced at Xanten. Remarkably this appears to be, based on the current state of knowledge, the only piece of pottery from this production that has travelled west beyond Xanten.

The graffito on the external base of the dish reads ALESA[---]. This can be supplemented to a variant of the cognomen Alexander. Another possibility is that the letters once constituted a case of the ethnic designation Alexandrinus, encountered in a graffito from Haltern. If we assume that the complete graffito from Utrecht is best to be interpreted as Alexandri, then it is likely that this Alexander was a person originating from the Greek East.

From the vicus west of the fort stems a Dragendorff 27 with a graffito on its outer wall. The cup dates to the Flavian period. Incised upside down on the outside of the cup are the letters DIARIS. This is not a clear-cut Latin name. It
probably should be read as Diaris, the genitive case of Diaris. *dia- is a stem common to many Celtic names. It seems therefore likely that the cup once belonged to a person with a Celtic background. But there is also the possibility that the sequence refers to not a name, but a food: diarium is the Latin word for ‘daily ration’. Maybe the small vessel was used as some kind of measuring cup and the letters should better be interpreted as diariijs, ‘(meant) for daily rations’.

In conclusion, material stemming from the pre-Flavian period has produced a possible link with the Hellenophone part of the Mediterranean through the graffito Alesanr-. Various names preserved on ceramics dating to the Flavian period have a Celtic background. Strikingly, they outnumber graffiti with clearly recognizable Latin names, but the total number of name graffiti from the 1st century AD is very low.

**Utrecht-Hoge Woerd**

The investigations of the fort at the Hoge Woerd site, also known under the toponym De Meern and now part of the administrative community Utrecht-Leidsche Rijn, have produced a small number of graffiti. A remarkably informative one is the graffito TEREF[---], which is placed on the outer base of a terra nigra dish type HBW 81 (fig. 18). This type of dish was in use for some time, but it may be assumed that this piece dates to the Flavian period. As for the text of the graffito, there are not many names that start with Teref-. The gentilicia Terefius and Terefrius are each attested only once in Gallia Narbonensis. From Mauretania Caesariensis comes an inscription communicating the cognomen Terefana. The person who once owned the terra nigra dish was therefore most likely not of local origin, but probably originated from a more southern region.

Further graffiti may be interesting, but lack certain information to be of direct relevance to the research at issue. First of all, a graffito [---]MINOR[---] has been identified on a South Gaulish dish Dragendorff 18. Although there are no proper names as such known to include -minor-, it may be assumed that it refers to the additive designation ‘minor’ in the meaning of ‘younger’ or ‘smaller’. The use of this Latin word suggests a person with a non-local, more southern origin from a Latin-speaking region.

A graffito on a fragment of smooth ware is read as LPLOM. This sequence is not easily interpreted. It could mean that the author used the abbreviation of his praenomen and gentilicium to mark his property. The l would then stand for Lucius. However, there are no gentilicia known to start with Plom-. The sequence

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796 Also known as type Deru A44.1 The fragment is registered as DM1982-329 (municipality of Utrecht).
797 The vaulted base makes it a late development of the type, but as the foot ring is still touching the surface, it is certainly not the latest. Therefore, the dish can be dated to roughly the Flavian period. See Haalebos 1990, 153.
798 A Celtic stem with the sequence Teref- is not known.
799 Collection Graafstal, according to the Wynia archives.
800 De Meern 240596, according to the Wynia archives (collection unknown).
could indeed equally be an abbreviation for something different than a name, for instance for the contents of the flagon or pot.

On a smooth ware flagon the more elaborate text [---d?]ONYSOBAINLVD has been noted.\textsuperscript{801} The use of the letter y has a Greek connotation, but the combination as a whole is unclear. Similar elaborate graffiti on flagons refer to military units, officers in charge of those units and soldiers serving under their command.\textsuperscript{802} It is possible that the first part should be interpreted as Dionysi(a), with the first i (accidentally) left out. A different solution could be the reference to the Greek island Onysia, modern-day Elasa off the coast of Crete. In both cases, a Greek connection seems to be present. The second part of the graffito is even more elusive. The combination -bain- certainly has a non-Latin character, but it is difficult to determine its origin. Whether the final combination -lud- is to be connected to this segment, or that the three letters serve as an abbreviation on their own or perhaps are a numeral indication of measurement (LVD), remains unclear. It can also not be stated with certainty how old this piece of pottery is, as the diagnostic upper part of the flagon has been lost. However, the archaeological context and the general shape of the flagon suggest that it dates from the late 1st or the early 2nd century AD.\textsuperscript{803}

In 2004 a large area to the east and south of the fort was excavated. These excavations uncovered traces of a military vicus, cemeteries, roads and a native settlement in the direct vicinity of the fort. Of the 21 graffiti found, one is an informative name graffito, occurring on the outer wall of a smooth ware flagon of the type Hofheim 50. It stems from a funerary context, which accounts for its good preservation. The cremated remains recovered from the grave in question belonged to a male adult who was between 19 and 28 years old and who might have been a soldier on account of his age.\textsuperscript{804} The flagon itself can be dated to c. AD 70-110. Thanks to its near completeness, the graffito incised on its shoulder can be read without difficulty: SATVRNI. It renders the genitive case of the name Saturnus or, less likely, Saturnius. We may assume that the person who was buried in the grave from which the flagon came, was most probably called Saturnus. Saturnus is a Latin cognomen that is particularly known from Gallia Belgica and the German provinces. Saturnus buried in Leidsche Rijn was therefore very likely a man from the northwestern provinces.

More graffiti have been recovered in further investigations of the vicus around the Hoge Woerd fort. About 40 m south of the southern gate of the fort the so far earliest traces of the vicus were discovered. Four graffiti from the excavations are of interest to the research at hand.\textsuperscript{805} A terra sigillata dish Dragendorff 18, dating from AD 80-110, has multiple lines of graffiti on its outer base, which can partially be reconstructed and interpreted.\textsuperscript{806} Outside the foot ring the text M\textit{ARTIALIS} can be distinguished. This is a widely used cognomen, Latin in origin. Inside the foot ring, another sequence of letters is preserved. This is too incomplete to be interpreted with confidence. However, when compared to a piece from Vechten, which carries a graffito with the combination of nominative and genitive,\textsuperscript{807} it is likely that the name or designation in the nominative placed inside the foot ring is the name of the owner of the dish, whereas the sequence on the outside might indicate the unit to which he belonged. In that case, this

\textsuperscript{801} Registered as F144 D.M.G.V.3 (collection unknown).

\textsuperscript{802} For instance, the graffito on a flagon from Alphen aan den Rijn-Lemkes, referring to a Melus serving in the centuria under command of Super(is) (see below, n. 882).

\textsuperscript{803} Cf. Bogaers' archives, dossier 478 (Museum Het Valkhof, Nijmegen).

\textsuperscript{804} Luksen-IJtsma 2010, 140-142.

\textsuperscript{805} Ceramics data provided by R. Niemeijer (Radboud University).

\textsuperscript{806} LR58, find no 371 (municipality of Utrecht).

\textsuperscript{807} Vechten: \textit{victor //t.flore.fla vini}, see n. 768.
The graffito attests the presence of some military activity. Unfortunately, the graffito is too incomplete to tell us more.

The second graffito is placed on a South Gaulish terra sigillata dish Dragendorff 18, dated to AD 40-110.\(^808\) The beginning of the graffito is lost, but the end of a name can still be read: [---]sv arci. The letter before the s is partially preserved; it might have been an i or a v. In the epigraphic sources only one name containing this letter combination is known: Losiarca.\(^809\) However, the graffito shows that the letter before -suarci cannot have been an o. Although a satisfying solution could not be found, it may be assumed that the name in the graffito is not Latin. Similar to the name Losuarcus/a, it might have a Gallo-Germanic association.

The most extensive graffito is visible on a circular piece of bronze fitting (fig. 19). The letters consist of small dots, punched on the bronze disc. The text covers five lines and can be read as follows: cho i / trhacvm / > dolani / senti exor/ ati. The graffito thus attests the presence of someone affiliated to a cohors I Thracum. Multiple cohortes I Thracum are known from various epigraphical sources and from various parts of the Empire.\(^810\) The name of the unit is misspelled, as noted more often in inscriptions.\(^811\) The third line of the graffito starts with a centuria sign, followed by what appears to be the genitive of the cognomen of the centurio, Dolanus. Dolanus is further attested only once, in a funerary inscription set up for a cavalryman serving in the cohors IIII Thracum who was designated as a Bessus, a tribe native to Thracia. The cognomen may be classified as Thracian. Although there is one attestation of a gentilicium Dolanius in a funerary inscription,\(^812\) the continuation of the graffito makes it more likely that the centurio was known by the cognomen Dolanus.

The start of the fourth line contains the gentilicium of the soldier serving under centurio Dolanus who appears to be the author of the graffito. The name of this person consists of two parts: Sentii Exorati. Sentius is a common, Italic gentilicium.\(^813\) Exoratus is a Latin cognomen mostly found in Gallia Cisalpina and Gallia Narbonensis. Combined, the gentilicium and cognomen point to the Mediterranean heartland of the Empire. On its own account, the combination of the duo nomina suggests that the person who used it was a full Roman citizen. This Sentius Exoratus\(^814\) could be a peregrine who had taken on a Roman-style name, even the full range of tria nomina, on enlistment without yet possessing official Roman citizenship. Alternatively, he could be a Roman citizen instead of a peregrine, who had personal reasons for joining an auxiliary unit instead of a legionary unit, or maybe he was for some or other reason not allowed to join the legions. Another possibility is that he could have been awarded full Roman citizenship in reward of honourable conduct.\(^815\) It is, however, uncertain whether the cohors I Thracum known to have operated in Germania inferior carried this

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808 LR58, find no 514 (municipality of Utrecht).
809 CIL XIII 4008.
811 The same error in CIL XIII 6286, found at Offenburg (Baden-Württemberg) and dated to the Flavian period, perhaps as precise as AD 73-74.
812 CIL IX 05869, found at Osimo, Italy.
813 Sentius is also known as a cognomen, but these instances are rare. They essentially pertain to people native to the northwestern provinces.
814 A Sentius Exoratus is also known from an inscription found at Fedjana in Algeria (AE 1975, 951). According to the inscription, he was a decurio in the ala I Augusta. Theoretically, he could have been promoted, from a common soldier in the cohors I Thracum (equitata) to eventually a decurio in the ala I Augusta. However, time is against this reconstruction: the cohors I Thracum had left Germania inferior before AD 110 whilst the inscription from Fedjana probably dates from around the middle of the 2nd century AD. Only when he would have just enlisted around AD 110 and served considerably longer than the standard twenty-five years, could this Sentius Exoratus from Fedjana be the same as the one encountered in Leidsche Rijn.
815 See the section on auxiliary recruitment, p. 55.
Furthermore, in case of enfranchisement by the emperor, one would expect the new citizen to adopt the imperial gentilicium, although this was apparently not mandatory. Since Sentius is not an imperial gentilicium, the scenario of reward by the emperor cannot satisfactorily explain, nor date, the presence of an apparent Roman citizen serving in the *cohors I Thracum* at Leidsche Rijn.

Secure contextual data for the bronze disc is lacking. Information from some military diplomas and inscriptions seems to provide the only support for a tentative dating. Two funerary inscriptions from Germania inferior clearly mention a *cohors I Thracum*: one from Remagen, where the unit was probably stationed for some time, and one from Cologne. Both inscriptions can be dated to the Neronian period. The listing of a *cohors I Thracum* as part of the *exercitus pia fidelis* in the diploma of 101 suggests the presence of the unit in

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816 Holder (1980, 228) considers the two units *cohors I Thracum* attested in Germania superior and Germania inferior as probably two separate cohortes, as does Haalebos (2000, 46-47), but Spaul (2000, 364-365) considers them as one and the same. In a later publication, however, Holder (1999, 246) suggests that the *cohors I Thracum* known from Germania inferior and the *cohors I Thracum civium Romanorum equitata* are the same unit.

817 Cf. Saddington 2000, 173. See also n. 418.

818 Site LR58, where the disc was found, is situated c. 40 m south of the southern gate of the fort. The excavations have brought to light features of a military annex with light structures dating from the earliest phase. Shortly after the middle of the 1st century AD this changed into buildings of the vicus settlement which orientated on the road leading south out of the fort. This situation seems to have lasted until the end of the 1st century, when a hiatus in occupation occurred. By the middle of the 2nd century AD activities are resumed at this site. See Aarts 2012, 16 for this preliminary reconstruction of the occupational history of LR58, which corroborates a Claudio-Neronian date for the disc.

819 *CIL* XIII 7803 (Remagen) and *CIL* XIII 8318 (Cologne).

820 Cf. Holder 1980, nos 2161 (Remagen) and 2164 (Cologne).
Germania inferior during the Flavian period.\(^{821}\) At some point after AD 101 it will probably have moved out of Germania inferior, either to Pannonia inferior or to Britannia.\(^{822}\) As there are pre-Flavian inscriptions from Britannia mentioning a *cohors I Thracum*, it has been hypothesized that the Lower German *cohors I Thracum* had already been active in Britannia before AD 80.\(^{823}\) It is, however, not certain that the two units are one and the same.\(^{824}\) Using the information distilled from the epigraphical sources the disc can be dated, with some caution, to the 1st century AD, and perhaps even more precise to the pre-Flavian period, as it remains unknown so far which unit(s) garrisoned castellum Hoge Woerd at that time.

The last item discussed here stems from an area roughly 100 m north of the fort. The main feature of this area is a fossil riverbed which ran almost straight from north to south. A rare and remarkable find from this site is a complete military spear with graffito. Even the wooden shaft has been preserved thanks to it having been deposited in the fill of a now fossil gully. Based on context and stratigraphy the spear has been dated to the period between c. AD 70/74 and c. AD 96.\(^{825}\) The spear is not only remarkable for its state of conservation, but also for the graffito carved on the spearhead. On the shaft of the spearhead the letters *virax* have been incised. As this is a nominative and not a genitive case, it can be asked whether this is an ownership mark. *Verax* is a rather rare cognomen, which was especially popular among the equites singulares in Rome.\(^{826}\) Many of these imperial guards came from Germania inferior. It seems therefore likely that the name Verax has an origin in this northern part of the Empire. Since the military use of spears now appears to be less exclusive than was previously thought,\(^{827}\) it is not possible to relate the spear from Hoge Woerd to specific military troops, be it legionary or auxiliary, infantry or cavalry.

**Woerden**

The 1975-1984 excavations in the centre of Woerden, uncovering parts of the fort and the area just outside it, yielded 39 graffiti on pottery datable to the 1st century.\(^{828}\) 24 of those contain references to one or more names. None of these graffiti predate the middle of the 1st century AD.

The most informative is a graffito placed, upside down, on the top of the shoulder of a white smooth ware flagon type Stuart 107/109.\(^{829}\) It was discovered in the fill of a pit together with another flagon, type Stuart 109, and a late Flavian terra sigillata fragment. The shape of the flagon, with its sharp transition from neck to shoulder, together with its find context allow the flagon to be dated to the Flavian period. The graffito reads *XV VOL lVCI ACTARI*, which may be transcribed as *(cohortis) XV Vol(untario rum) Luc(i) Act(u)ari*. This tells us that an *actuarius*, a soldier and secretary of a unit, known by his cognomen Lucius and member of the *cohors XV Voluntario rum civium Romanorum* was present at Woerden during the Flavian period or shortly after. Brick stamps already indicated that this unit

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822 *CIL* XVI 164 (Pannonia inferior, AD 110, with the titles *pia fidelis*) vs. *CIL* XVI 69 (Britannia, AD 122, without the titles *pia fidelis*).
823 Bogaers 1974b, 447.
824 Haalebos 2000, 47, n. 145. See also n. 810 and n. 816.
825 Aarts 2012, 142-143, 159, 261.
827 Cf. Nicolay 2007, 208-211.
828 According to an unpublished typescript of Haalebos [1986].
829 Find no 12.396.d. See also Bogaers & Haalebos 1982, 5-6, fig. 5, and Haalebos 1986a, 173, fig. 6. All mentioned finds from Woerden are now stored at the Provincial Archives for Archaeological Finds Utrecht.
had been garrisoned, completely or partly, at this site, but the graffito on this
flagon provides a more sound argument.

Further military indications are seven references to centuriae, and one mention
of the term contubernium. The centuria signs attest to the presence of infantry,
whereas contubernia are subunits of infantry as well as cavalry. It seems that of
the seven centuriones named, two appear twice. One of them is called Maxumus
(sic), a name that has an Italic connotation. The other is probably known by
the name of Primus, which appears a third time in another graffito. Two of the graffiti
showing centuria signs can be dated to the years AD 50-70/80, four others to the
years AD 70/80-100. The seventh graffito could not be more securely dated than
general 1st century.

Among the 24 graffiti two instances of duo nomina can be recognized, and
one single Italic gentilicium. Remarkably, both examples of duo nomina are
inscribed together on a terra sigillata dish Dragendorff 18 datable to the Flavio-
Trajanic period. Compared to the material from other sites, these are rather late
occurrences of duo nomina. They might be related, in this case, to the attested
presence of the cohors XV Voluntariorum. The originally Italic gentilicium
Gellius can be found on a Flavian terra sigillata dish Dragendorff 18.

Of all the names identified, 23 can be classified as Latin cognomina. Some
of these are also known as gentilicia, but in the context of the graffiti at hand
a classification as cognomen is more likely. One of these names is Vettius,
belonging to a centurio. It is inscribed on a probably Flavian lamp. This name
might have a Celtic connotation. A stronger Celtic character is proposed for
two other graffiti. [---]AMBVT[---] can be found on a Flavian terra sigillata dish
Dragendorff 18, whereas [---]EPT[---] appears on a terra nigra dish HBW 81, dated
to the period AD 90-110.

Most of the attested Latin cognomina are common and widespread in the whole
of the Empire. Others have notable concentrations. Especially the cognomen
Similis seems to have been particularly popular in the province of Germania
inferior. For the cognomen beginning with Aul-, a Thracian origin is possible,
but far from certain. Grili- is so far only known from Africa. The cognomen
Silvanus has a concentration on the Iberian Peninsula. LOGIN[---] is probably
a variant of Longinus, which seems also to be present in the material from
Herwen-Bijlandse Waard and which might indicate a connection with the
Spanish provinces as well. Finally, one of the graffiti contains an even more
specific geographical reference through the wording MARSACI, meaning ‘(of)
the Marsacus’. The Marsaci or Marsacii were a tribe commonly supposed
to have lived in the coastal area between Rhine and Scheldt. The geographical
indication accompanies the genitive of the name Victor, scratched together into
a terra sigillata dish Dragendorff 18 dated to AD 80-110. It is highly likely that
this addition was needed to distinguish this Victor from other men with the same
name. Indeed, the graffiti presented here include three, possibly four references

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830  Centuriae: find nos. 6.151.ca, 1.004.at, 3.116.da, 1.002.as, 8.281.abe, 7.189.cc and 7.178.bc.
Contubernium: find no 0.082.aep.
831  Find no 8.291.adn.
832  Find no 1.004.at.
833  Find no 7.178.bc.
834  Find no 7.172.ak.
835  Find no 7.203.cb.
836  Similis: find no 7.189.cc; Aul-: find no 4.121.a.; Grili-: find no 1.034.aa; Silvanus: find no 6.151.
ca.
837  Find no 3.107.ab. For the graffito from Herwen-Bijlandse Waard, see n. 583-590.
838  Find no 8.291.a.
to a Victor. This fits the image of Victor being a name particularly popular among soldiers of the Roman army.

The excavations at Woerden-Hoochwoert (2002-2004) covered an area directly southwest of Roman fort Laurium in all but its first phase (during the reign of Caligula/Claudius). In the report a separate paragraph is devoted to graffiti, of which about 200 were counted.839 The appended list has 188 items. Datable to the 1st century AD are 77 vessels of terra sigillata and 2 fragments of Gallo-Belgic ware with graffiti.

Three of these 79 graffiti display a centuria sign. One of these is preceded by the rank indication of signifer and followed by what is probably the common Latin cognomen Verecundus. A second centurio’s name is completely preserved: Rarus. This Latin cognomen is rather uncommon. It very likely points to the Mediterranean heartland of the Empire. The name of the third centurio is too fragmentary to be reconstructed. Only one of these three graffiti can be dated to the pre-Flavian period.840

Only one instance of duo nomina can be recognized, and then only with difficulty. The graffito in question displays the sequence cvit-, which might be reconstructed as the combination of the praenomen Caius and perhaps the gentiliciu Vitellius. Further definite gentilicia are lacking, although the name Arruntius appears in one of the graffiti. While Arruntius is more common as anItalic gentiliciu, it is probably here – after the analogy of graffiti in general – better interpreted as a cognomen, also pointing to the Mediterranean heartland. The duo nomina were found on a South Gaulish terra sigillata cup Dragendorff 24/25 dated to AD 40-80, and arrvnti is inscribed into a South Gaulish terra sigillata dish Dragendorff 15/17 dated to AD 40-90.841 The name Arruntius is also attested at Alphen aan den Rijn, equally on a relatively early vessel.842 None of the graffiti from the excavations at Woerden are with certainty earlier than these two with an Italic connotation.

Most of the cognomina encountered can be classified as Latin. Of the nine Latin cognomina identified, Titullinus and Rarus are relatively infrequent.843 Whereas Rarus is suspected to have a southern Gaulish or Iberian background, Titullinus rather belongs to a person originating from the Gallo-German provinces. Very common is the name Victor, which is at least one and possibly two times present in the material from Hoochwoert.844 In addition to the Latin cognomina, dionis leads to the Greek cognomen Dio.845 The graffito that, with some difficulty, reads [---]bitos may display a connection with the wider Thracian region, for the name can be reconstructed as a variant of Bit(h)us.846 This name has a strong appearance in the province of Moesia inferior. Alternatively, however, the combination -bitos can also be a Celtic variant of rare names ending in -bitus, such as Adbitus, Dagobitus and Daribitus.847 Four other names, or rather remains or abbreviations of names, appear to represent non-Latin cognomina as well.

839 Hazenberg & Wynia 2008.
840 >prari sabini: find no 039/2107; [---]infere>verecv[---]: find no 032/1914; >in[---]: find no 027/0848.
841 cvit[---]: find no 027/0838; arrvnti [---]: find no 028/1134.
842 See below, n. 868.
843 Titullinus: no find no; Rarus: find no 039/2107.
844 Find no. 999/0046 and 032/1934.
845 Find no 027/0826. In the same graffito, a second name is incorporated as neger. This may be a writing error, with neger instead of Neger. However, there is not enough ground to accept neger as the definitive reading of this second part of the graffito, especially since the case ending is different from what is to be expected. Contra Hazenberg & Wynia 2008, 178, 181, cat.no 34.
846 Find no 025/0316.
847 Cf. Delamarre 2003, 76-77.
The sequences at hand, i.e. siniit, [---]artvdiis, [---]icc[---] and [---]ovt[---], probably have a Celtic background.848

In sum, the graffiti recovered from Woerden consist mainly of common Latin cognomina, with Victor being very well represented, but they also include connections with the Hellenophone areas, with the Iberian Peninsula, perhaps even the African territories, but also the Germanic region and especially Celtic areas of the Empire. Duo nomina and gentilicia are only present in small numbers. Striking is the reference to the tribe of the Marsaci. According to the graffiti, at least some of the men stationed at Laurium were infantry soldiers, based on the several centuria signs incorporated in the graffiti. As an ultimate reference the name of a unit appears inscribed upside-down on the shoulder of a flagon, that of the cohors XV Voluntariorum.

Bodegraven

From this site, situated between Woerden and Zwammerdam, no graffiti on ceramic vessels or militaria are known that can be attributed with certainty to the 1st century AD. However, a colour-coated cup of possibly the type Stuart 12 with the remainder of a graffito may give us a clue about the men present here at the end of the century.849 The graffito reads [---]mbati, which most likely may be supplemented to Ambati. Ambatus is a cognomen almost exclusively attested on the Iberian Peninsula. Although the vessel cannot be securely dated to the 1st century AD, because the type was still in use in the early 2nd century, it suggests that there were men originating from the Spanish provinces present at Bodegraven at the end of the 1st century AD.

A lead tabula ansata found at Bodegraven in 2000 is also worth mentioning here, although the object cannot be dated securely.850 This tabula is a so-called curse tablet (defixio), on which some twenty names had been written. As they had been scratched into the lead very superficially, it was difficult to decipher them. In the end, three columns of eight or nine names could be identified. The names appear to be all male nomina singulares or cognomina. The composition of this list of names is rather heterogeneous. Although most names have Latin origins, some are mainly found in the Mediterranean heartland of the Empire, whereas others are particularly popular in the Danubian provinces.851 Celtic cognomina are also present. Atrectus is such a Celtic cognomen, and this is the only one of this collection of names which is well-known from the German provinces. The other names rather point to non-local men. Names with a Spanish connotation are remarkably well represented, with four names out of a total of twenty-two reconstructed names.852

As the tablet was found in or near the fort, it is presumed that the names refer to men stationed at the fort. The heterogeneity of this collection of names hints at a date later than the 1st century, as in due course, the original homogeneous composition of the supposed auxiliary units will have been diluted by new recruits from various possible regions within the Empire. Still, the apparent

848  siniit: find no 025/0436 ; [---]artvdiis: find no 028/1116 ; [---]icc[---]: find no 030/1223; [---]ovt[---]: find no 025/0316.
850  Haalebos & Polak 2007. After the manuscript of this dissertation had been finished, a new reading of the Bodegraven curse tablet was published. The new insights from this publication are not included in the general analysis. In his re-interpretation Swinkels (2018) underlines the diversity of the names inscribed on the tablet, but in particular the share of Spanish names is in his view less prominent than proposed by Haalebos and Polak.
Spanish connection, at least among the names written on the curse tablet, suggests the presence of an auxiliary unit once levied on the Iberian Peninsula.\(^{853}\)

**Zwammerdam**

In his 1977 study of the Roman fort of Nigrum Pullum/Zwammerdam, Haalebos listed a total of 93 graffiti.\(^{854}\) Previously, De Raaf already published 26 graffiti from this site.\(^{855}\) Together, these 119 graffiti are placed on various objects, but mostly on ceramic vessels dating from the 1st and 2nd centuries AD.

A considerable number of these graffiti include a statement of rank. Nearly all of the graffiti with indications of ranks can be assigned to the second phase of the fort at Zwammerdam, which roughly dates from the early Flavian period until AD 180. The military designations in graffiti on vessels and objects that can be dated to the 1st century AD comprise three centuriones, three decuriones (on one object), a signifer, a beneficiarius, and possibly a cornicularius or cornicen and an imaginifer.\(^{856}\) The combination of centuriones and decuriones suggests a mixed garrison. Since cavalrymen associated with a legion were commanded by centuriones, not decuriones,\(^{857}\) a legionary subunit is not expected to have been present at Zwammerdam at that time. A numerus is also unlikely, because beneficiarii are not known to have served in this type of unit. The presence of a beneficiarius\(^{858}\), in combination with infantry as well as cavalry, rather suggests that part of a cohors equitata was stationed at Zwammerdam at the end of the 1st century AD. As the ranks of signifer, cornicularis/cornicen and imaginifer appear not to be limited to specific types of units, their occurrence in the 1st century graffiti does not hinder this hypothesis.

Apart from the mentioned military ranks, the proper names in the graffiti attest to the presence of men with different backgrounds at Zwammerdam during the 1st century AD. These proper names appear to be all cognomina or single names; gentilicia could not be recognized with certainty. In the graffiti on pottery that can be dated to the 1st century AD, twenty-four Latin cognomina have been identified. One of those, namely Albanus, might have had a Celtic background.\(^ {859}\) The Latin cognomen Verax has a particularly strong concentration in the German provinces.\(^ {860}\) Certainly Germanic are Hahucus, a cognomen that might refer to the tribe of the Chauci, and the conditionally reconstructed name of Leluais.\(^ {861}\) In their turn, the cognomina Cissus, Pupus and Surio can be classified as Celtic cognomina.\(^ {862}\) When all the cognomina are considered together, the cognomina known from graffiti that can be assigned to the first phase of the military installation (c. AD 47/50-70) all classify as Latin cognomina. In graffiti from
the second phase (c. AD 70-180), not only Latin but also Celtic and Germanic cognomina make their appearance, albeit in considerably smaller numbers. It should be mentioned here that the object on which the three decuriones appear together is a well preserved bronze shield boss (umbo). Although the object itself is difficult to date, the context in which it has been found holds useful information: it has been found under a layer of debris that must be related to demolition or rebuilding activities during the second half of the 2nd century AD. The shield boss predates this layer, but is probably not earlier than the late 1st century. No less than four lines of graffiti have been punched into the bronze, of which three are placed on the outside of the flat rim (anticlockwise) and one on the inside (clockwise). They may be transcribed as: T MANSVETI PVPI // T VERI HAHVCUT VEV/T VERACIS PVPI. It may be assumed that the graffito on the inside is the oldest one. It marks the shield as the property of Pupus – a Celtic name, as mentioned earlier – serving under the command of a decurio named Mansuetus, whose Latin cognomen may be common but is nevertheless mostly encountered on the Rhine and in Gallia Narbonensis. Pupus is mentioned again in a second graffito, but in this case the turma is led by Verax, who might well have originated from the German provinces. In the third graffito, a new owner under the command of a different decurio is named: Hahucus, under the command of Verus. Whereas Verus is a common Latin cognomen, the name Hahucus appears, as said before, to be Germanic and is probably related to the tribe name of the Chauci. The fourth, and only faintly visible, graffito appears to be a failed first attempt of either the second or the third graffito. The three complete graffiti thus not only attest the presence of cavalry, by mentioning turma commanders, but they also indicate a garrison of men with Celtic and Germanic backgrounds. These ‘regional’ men were probably also to be found among the decuriones, judging from Verax being the (second) decurio in command of Pupus.

Alphen aan den Rijn

The rather short list of 1st-century name graffiti recovered from the direct surroundings of Albaniana comprises firstly a graffito on a South Gaulish terra sigillata cup Dragendorff 27. The stamp on the cup allows it to be dated to AD 55-70. It has been inscribed with ARRVTI, which is best understood as the genitive case of the gentilicium Arruntius. However, one would rather expect a cognomen instead of a gentilicium, since cognomina are used the most in indications of ownership. It is interesting to note, furthermore, that a graffito with the same text has been found at Woerden. Perhaps this was the same man. The date of the pottery fragment from Woerden does not invalidate this scenario. Arruntius points to the Mediterranean region.

The 1998-1999 excavations have produced only a very small number of graffiti. Only one of those can be dated with certainty to the 1st century AD. It reads vir, and is placed on the neck of a white smooth ware flagon, type Stuart 107. The

865 Published as AE 1991, 1254.
866 Bogaers 1966b; Calkoen 1966.
867 NoTS: Macer i (La Graufesenque), die 8a (inv.no ROB 2H), date: AD 55-70.
868 Arruntius is also attested as a cognomen, but OPEL lists only 6 inscriptions with Arruntius as a cognomen against 47 inscriptions with Arruntius as a gentilicium.
869 See above, n. 841.
three incised letters are probably the abbreviation of a name, such as the Latin cognomen Virilis, but other interpretations are not excluded.\footnote{Find no ALP.1998.010.809.d. Haalebos Fransen et al. 2000, 119. All mentioned finds from Alphen aan den Rijn are stored at the Provincial Archives for Archaeological Finds Zuid-Holland.}

In 2001-2002, further excavations resulted in more graffiti.\footnote{Polak Kloosterman Niemeijer 2004, 162, 198-203, 303-305 (Bijlage 6).} Most of them are on terra sigillata. Six graffiti contain a centuria sign, which indicates the presence of infantry, but only three of them can be dated to the 1st century AD. One is placed on a fragment of terra sigillata dated to AD 75-110.\footnote{Find no ALP.01.034.1786 and ALP.01.344.3505.} Two other graffiti with centuria signs are found on two South Gaulish dishes type Dragendorff 18.\footnote{Find nos ALP.01.034.1786 and ALP.01.344.3505.} The three graffiti name three different centuriones, but unfortunately their names nor the names of their subordinates are completely preserved. The graffito from AD 75-110 reads > qvi […]/pvr […] . It signals the presence of an infantry unit at the end of the 1st century AD, perhaps the cohors VI Breucorum at Albaniana which is known from brick stamps found on site, although this unit is only first mentioned as part of the Lower German army in the diploma of AD 98.

Other extensive graffiti on pottery from the 1st century are avrili (AD 30-65)\footnote{Find no ALP.01.044.3625. Placed on a South Gaulish dish type Dragendorff 18, stamped by L Cosius Virilis. NoTS: L. Cosius Virilis (La Graufesenque and Le Rozier?), die 25a, date: AD 75-110.} and flavi bv (AD 65-90).\footnote{Find no ALP.01.027.0475. Placed on a South Gaulish dish Dragendorff 18, stamped by Crestus. NoTS: Cresticus i (La Graufesenque), die 3b, date: AD 65-90.} The first appears to contain the imperial gentilicium Aurelius, but as the piece of pottery on which it is inscribed is dated to the period AD 30-65, it cannot refer to a person who was enfranchised by a member of the imperial house of Marcus Aurelius. The gentilicium Aurelius appearing during the 1st century can rather be considered as a typical Spanish family name, according to Haalebos.\footnote{Haalebos (1997, 54, 64, n. 64) refers to Spanish Aurelii attested in Flavian inscriptions found at Nijmegen, but does not further underpin his statement.} However, gentilia on their own are rare in graffiti. It is highly likely that the graffito displays the genitive case of the cognomen Aurelius. Aurelius as a cognomen is rather uncommon and seems to be a particularly late phenomenon. The highest occurrences are in Gallia Narbonensis and Pannonia. The second graffito consists of flavi and bv. bv is likely to be the abbreviation of bucinator(tis).\footnote{Find no ALP.01.046.3657. Placed on a large South Gaulish cup type Dragendorff 24/25, stamped by Maccarus. NoTS: Maccarus i (La Graufesenque), die 6a, date: AD 30-65.} Bucinatores were not reserved for special units. flavi can be transcribed as Flavi, genitive case of cognomen Flavus, or Flavii, genitive case of gentilicum Flavius. Similar to the example of Aurelius it is also not probable that flavi should here be interpreted as a case of the gentilicum Flavius. Although the dating of the fragment in the period AD 65-90 allows for a possible connection with the imperial house of the Flavii, the name in the graffito is more likely a cognomen than a gentilicum. The cognomen Flavus is particularly popular in inscriptions from the Iberian Peninsula. Finally, the graffito sacra vio on a terra sigillata dish dated to the Flavian period may refer to a not further attested name, but the text could also be related to the verb sacrō, sacrāre, meaning 'to dedicate, to devote'.\footnote{Wassink 1983; Van den Berg 1994.} The graffito could not be definitively interpreted.

Less well datable but probably 1st-century are three name graffiti recovered during excavations south of the fort, where it is assumed that part of the vicus was situated.\footnote{Wassink 1983; Van den Berg 1994.} Carved into the wall of a mortarium Stuart type 149 B is the sequence virot[---]. This is probably a Celtic name based on the stem *vir-
which means ‘man’. It can be supplemented to the genitive of Virotus, Virotutus or Virotoutus. A terra sigillata cup Dragendorff 33 shows [---]TANIVS. Various names end with this sequence, but none of them are common. The third graffito is placed on a colour-coated beaker Stuart type 1B and reads [---]TACITI. This may be interpreted as the genitive of the Latin cognomen Tacitus. This name has no clear geographical concentrations.

An addition to the graffiti on pottery are punched graffiti on metal objects. Nine owner’s tags found at Alphen aan den Rijn all contain a centuria sign in the punched-in texts. These references to infantry units reinforce the earlier signalled scarcity of finds that indicate the presence of cavalry.\(^{880}\) The metal plates cannot, however, be used as evidence for the presence of infantry at Alphen aan den Rijn during the 1st century, because these objects cannot be securely dated.

From the site Alphen aan den Rijn-Lemkes, about 2.5 km northwest of the fort, stems a smooth ware flagon Stuart 110A with an elaborate graffito on the shoulder. The exterior characteristics of the flagon allow for a dating around the turn of the century, probably into the first quarter of the 2nd century.\(^{881}\) The graffito contains the sequence ) svpiiris miili, which can be transcribed as (centuria) Superis Mell. Since it includes a reference to a centuria, it can be stated that around that time infantry was present at Alphen aan den Rijn. According to Bogaers, the name of the centurio has been misspelled as Superis instead of Superi, which is the genitive case of the cognomen Super.\(^{882}\) This cognomen has a remarkably strong occurrence in Germania inferior. There are, however, three inscriptions apart from the one from Alphen aan den Rijn, that imply that the form Superis was also used as such in the nominative. This suggests that this variant of the name followed the rules of the third declension instead of those of the second declension.\(^{883}\) From this viewpoint, Superis could also be a genitive case. One of the three inscriptions displaying the apparent cognomen Superis comes from Germania inferior, the other two from Noricum.\(^{884}\) The cognomen Melus is assumed to be Celtic in origin, but Kakoschke notes that the name could also refer to the Greek island Milos (Melos).\(^{885}\)

**Leiden-Roomburg**

The total number of graffiti available from Leiden-Roomburg is rather small. Most of the graffiti consist of illiterate marks or simple letters, but some of them hold more information about the men stationed here. A name graffito recovered during the 1995-1997 excavations is placed on a terra sigillata dish Dragendorff 18/31 of which the stamp allows for a date of AD 85-115.\(^{886}\) The graffito reads loppivs, which is best understood as L. Oppius. This combination of a praenomen and the Italic gentilicium Oppius initially suggests the presence of a Roman citizen who served as a legionary soldier, but a connection with an auxiliary unit is also possible. Since the cohors XV Voluntariorum civium Romanorum is attested at Leiden-Roomburg not only through brick stamps but

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881 The nipped in foot, the pronounced upper lip and the maximum width above the middle of the body height support the determination of the flagon as a type Stuart 110A. Cf. Haalebos 1990, 159.
882 Bogaers 1988, 3; see also Alfred, Sprey & Wassink 1992, 163-164.
883 The second declension would apply to Super, with Superi as the genitive case. The nominative Superis would, in its turn, be followed by the genitive case Superi.
884 The one from Germania inferior has been found at Colijnsplaat (AE 2001, 1486), the other two from Noricum at respectively Herzogenburg (CSIR-Oe-01-06, 90) and Sankt Andra vor dem Hagenthale (CIL III 5094).
886 NoTS: Maternus ii (Mater-)? (La Graufesenque), date: AD 85-115.
also through two inscriptions\(^887\) and a name tag on a leather shield cover (see below), the possibility that L. Oppius was a member of this auxiliary unit must seriously be considered.

Strictly not a graffito but certainly informative and relevant to the research question at hand are the traces of a military unit’s name once stitched on a leather shield cover. This cover was unearthed during excavations in 1995-1997, together with other fragments of leather.\(^888\) Based on the applied hems, signs of wear and the find context, the cover must have been discarded around the turn of the 1st to the 2nd century AD. The cover belonged to a curved rectangular shield, known as a *scutum*, traditionally associated with legionary soldiers. But the traces of the stitching proved otherwise, for they could be reconstructed into a tabula ansata with the lettering *COHR / XVVO* and two emblems in the shape of fish-tailed capricorns flanking this name shield. The abbreviation refers not to a legionary, but to an auxiliary unit, the *cohors XV Voluntariorum civium Romanorum*. It appears that rectangular shields were not only the prerogative of legionary soldiers, but that members of a cohors Voluntariorum were also allowed to carry them, probably because of their status as Roman citizens.\(^889\)

Furthermore, the leather find gives reason to assume that at least part of the *cohors XV Voluntariorum civium Romanorum* was present at Leiden-Roomburg at the end of the 1st century AD or the beginning of the 2nd century AD. Prior to this discovery, the unit was already documented at Matilo through several brick stamps and two inscriptions, already mentioned above. But Roomburg is not the only site along the Lower Rhine where the *cohors XV Voluntariorum civium Romanorum* is attested through an owner’s mark at the end of the 1st century or beginning of the 2nd century AD. Woerden also produced a graffito referring to the *cohors XV Voluntariorum civium Romanorum*. The flagon with graffito found at Woerden, made by an actuarius, has been dated to the Flavian period.\(^890\) This argues then for two scenarios: either parts of this infantry unit were garrisoned in different camps, or the whole unit transferred from Woerden to Roomburg just around AD 100.\(^891\)

**Valkenburg**

**Valkenburg-fort**

Before attention is directed at graffiti on pottery, first some very informative text remnants on fragments of wooden writing tablets will be discussed. Excavations at the site of the fort have yielded about twenty fragments of wax tablets (*tabulae ceratae*).\(^892\) On two of them, the text was readable enough to distill information about the occupants of the fort. The first fragment showed on its outer side the traces of the inscribed address of the intended recipient: *TULO LOVCORVM (?) / ALBANO MEDICO*. The text has been transcribed as *Tulo Loucorum (?) / Albano medicu*. The first line, *Tulo Loucorum*, is regarded as a location or place name in the ablative case. *Tullum Leucorum* is the ancient name of the modern-day city of Toul, situated on the Moselle in the northeast of France. Either the addressee received the tablet when he was in Tullum Leucorum and took it with him to

\(887\) Dated to respectively AD 196-198 (CIL XIII 8824) and AD 201 (CIL XIII 8826). Cf. Alföldy 1968, 217, nos 169, 170.

\(888\) Van Driel-Murray 2009b.

\(889\) Van Driel-Murray 2009b, 28.

\(890\) See above, n. 829.

\(891\) Van Driel-Murray 2009b, esp. 28. See also Van Driel-Murray 1999, with a later date of the leather shield cover. This is further refined in the 2009 publication.

\(892\) Glasbergen 1967, 67-76.
Valkenburg, or the writing tablet was meant to be sent from Valkenburg to Gaul but was for some reason thrown away. Based on the find context, the tablet was probably discarded before the building of fort phase 2/3 in the Claudio-Neronian period. The addressee is identified as a *medicus*, a physician, by the name of Albanus. Albanus is a Latin cognomen with possibly Celtic (or Germanic) influence. It appears to have been particularly popular in the western provinces.

Even more informative is the text preserved on another wooden tabula cerata. The writing on the side of the address reads *tigiirni lo mil / chor iii gallorii*, which can be reconstructed as follows: *Tigernilo mil(iti) / c(o)hort(tis) III Gallor(um) e(quitatae)*. It appears that the message was addressed to Tigerninus, soldier of the *cohors III Gallorum equitata*. The find circumstances indicate that the tablet was probably discarded before or during the building of phase 2/3 (AD 47-69) of the fort in the Claudio-Neronian period. It is thus assumed that the *cohors III Gallorum equitata* was stationed at Valkenburg before AD 47. It remains unknown where the unit was stationed before the Claudian period. According to Paul Holder, the unit was raised in Gallia Lugdunensis and might have been part of a series of Gaulish cohorts serving on the Rhine during Augustus’ reign. Judging by his cognomen, soldier Tigerninus had a Celtic background, and might have come from the Gaulish territory where the mixed unit originally had been levied. Given the connection with the Gaulish city *Tullum Leucorum* and its inferred date, the first writing tablet was probably also written by or to a member of this originally Gaulish unit when stationed at Valkenburg in the Claudio-Neronian period. A third tabula fragment appeared, after further consideration, also to have been addressed to somebody of the same cohors. Based on its find context, it was discarded before AD 47 (the assumed beginning of phase 2/3 of the fort). After the fragment had been re-examined, the text was deciphered as *c iii gallorvm*, thus constituting a second mention of this auxiliary unit in Valkenburg.

In addition to the actual name of a unit, further military indications are incorporated in various other graffiti. A piece of leather, originally part of a shield or a shield cover, shows the text *iiqv ivnivs* scratched into it. This can be transcribed as *Eq(ues) Iunius*, meaning that the shield once belonged to a cavalryman by the name of Iunius. Iunius is mostly known as a gentilicium, but is also attested as a cognomen, without very strong or conspicuous distribution foci. It is assumed that the leather fragment belonged to a member of the first garrison of the fort. Thus, Iunius probably served as a cavalryman in the *cohors III Gallorum equitata*. The association with this mixed unit is

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893 Glasbergen & Groenman-van Waateringe 1974, 37, Appendix 5, no 3. In *AE* 1975, 634, a date of AD 39/40-42 is suggested for this particular fragment, based on the find circumstances. Until 1962 phase 2 was considered separately from phase 3, but since 1967 the groundplans have been combined and referred to as one phase, i.e. 2/3. Cf. Glasbergen & Groenman-van Waateringe 1974, 13, n. 27.
894 Cf. Mocsy 1985, 63.
895 The fragment was discovered in the fill of a foundation trench of phase 2/3. Glasbergen 1976, 70; Glasbergen & Groenman-van Waateringe 1974, 37, Appendix 5, no 1. See also *AE* 1975, 633.
896 Spaul writes (2000, 162) that the unit was stationed in Lusitania before it got transferred to Germany inferior. Evidence for this would be a votive altar set up by a member of a *cohors III Gallorum* in former Lusitania (*CIL* II 403). The name of the unit is, however, not intact and cannot therefore not be read with certainty. But even if a *cohors III Gallorum* is named here, it cannot be the same unit as the one from Valkenburg when the altar indeed dates from the Flavian period or later, as Holder indicates (1980, 309, no 1501).
897 Holder 1980, 111, with reference to Tac. *Ann.* II.17.4. For the Flavian period, it is assumed that the unit was transferred first to Germania superior, then to Moesia, from where it moved to Dacia in the early 2nd century AD. Cf. Alföldy 1968, 58; Holder 1980, 221; Gayet 2006, 85.
898 Glasbergen 1967, 74; Glasbergen & Groenman-van Waateringe 1974, 37, Appendix 5, no 2.
899 According to Glasbergen and Groenman-van Waateringe (1974, 37, Appendix 5, no 6), the fragment ‘almost certainly’ stems from the earliest phase of the fort.
corroborated by the use of the word ‘eques’, which would have been redundant within an all-cavalry unit.

Turning attention to the graffiti on pottery, there are two more indications for cavalry. One is the graffito reading T Casi on the base of a South Gaulish dish Dragendorff 18 which was recovered among the remains of one of the barracks of the earliest fort and therefore listed under ‘castellum 1’.\(^{900}\) Although the text can be interpreted a Ti\(t\)i Cassii, representing duo nomina, analogy suggests that the transcription turma Cassii is also possible. The rarity of duo nomina especially on the later pieces pleads for the latter interpretation, but the lacking of the name of the actual (individual) owner of the plate undermines it. Cassius is known as both a gentilicium and a cognomen. It is a common and widespread name, with a notable popularity in Gallia Belgica, the German provinces and Dalmatia. The second graffito on pottery containing a cavalry indication leaves little room for doubt, for the text starts with the fully written term turma followed by Iuli\(-\): tvrma Ivl\([-\])\(\ldots\).\(^{901}\) As noted elsewhere, Iulius is attested as cognomen and as gentilicium, both common and widespread. The graffito is placed on the outside of a mortarium with horizontal rim. The find circumstances suggest the presence of cavalry during the Claudio-Neronian period, before the fort burnt down in the Batavian Revolt.\(^{901}\) This ties in with the known layout of the fort in phases 1a (c. AD 42-47) and 2/3 (c. AD 47-69). It has been established that c. AD 42 the infantry barrack blocks of the first fort at Valkenburg had been adapted for the accommodation of cavalry. Until AD 69, during phases 1a and 2/3, the fort appears to have offered space for half an ala quingenaria.\(^{902}\)

Evidence for infantry comes from a graffito on the shoulder of a jug found among the remains of the earliest phase of the fort.\(^{903}\) The remaining text reads [-]mi > classici. The first part of the graffito appears to be the genitive of the generic name ending -imus. Then follows a centuria sign. The last part of the graffito is not completely straightforward. On its own, classicus could be taken as an adjective, meaning ‘of the fleet’. But if this meaning is meant here, then the genitive case would be redundant. Classici is here best considered as the genitive case of the cognomen Classicus, which is not common and does not have a clear geographical concentration.\(^{904}\)

Further informative graffiti on pottery datable to the 1st century are limited to only ten in number. With two exceptions, they are all datable to the Claudio-Neronian period. Three graffiti probably mention the name Iulius, although the graffito fragment Iul\(-\) may also be referring to the originally Celtic cognomen Iullus.\(^{905}\) The fourth graffito reads alba\([n?\ldots]\),\(^{906}\) which could refer to the Albanus mentioned on one of the wooden tablet fragments. As stated above, the cognomen Albanus is particularly well known from the western provinces.

Another fragmentary graffito can be transcribed as Sabin\(-\), which most likely

\(^{900}\) From the papilio of contubernium 2 in building 9. Glasbergen & Groenman-van Waateringe 1974, 37, Appendix 5, no 4a. Please note that it is remarked that the base fragment carrying the graffito does certainly not belong ‘to the typical terra sigillata of the castellum 1 period’.

\(^{901}\) The fragment was found in the burnt layer covering the remains of phase 2/3. Glasbergen & Groenman-van Waateringe 1974, 42, Appendix 6, no 1.


\(^{903}\) Found outside the wall of fort phase 1. This zone was elevated for the extension of phase 2/3. Glasbergen & Groenman-van Waateringe 1974, 37, Appendix 5, no 4.

\(^{904}\) Kakoschke (2007, CN 841) lists only two men by the name of Classicus, one of whom is centurio L. Iulius Classicus, serving in the legio XVI (Gallica) in the Brohltal before AD 70 (CIL XIII 7720). It is not impossible that this centurio Classicus and the one from Valkenburg are one and the same. The other Classicus listed by Kakoschke is the Treveran nobleman Iulius Classicus, described by Tacitus as the praefectus of the ala Treverorum in AD 70 (Tac. Hist. IV 55).

\(^{905}\) Find no 4187; find no 7238a. All finds from Valkenburg-fort mentioned here are now stored at the RMO.

\(^{906}\) Find no 4891.
once stated Sabini as the genitive of the Latin cognomen Sabinus. Although originally an ethnic designation, the name Sabinus had become a very common and widespread cognomen by the time the author of this graffito carved his name into the terra sigillata dish at hand.\textsuperscript{907} Also fragmentary is the graffito reading bien[---].\textsuperscript{908} The most likely solution is that the text included a case of the originally Celtic cognomen Bienus. This name might well signal a North Gaulish connection. The seventh pre-Flavian graffito comprises a combination of what appears to be two cognomina, namely Ingenuus and Domitius: [---]invi[-] domitl.\textsuperscript{909} Both are common names, although Ingenuus seems to have been particularly popular in Pannonia and Noricum. Perhaps Domitius served under the command of Ingenuus, or vice versa. Without a clear centuria sign or turma indication, this explanation must remain provisional. The last of these Claudio-Neronian graffiti also displays two names, but these are probably the name of a commanding officer followed by the name of a subordinate soldier. The latter will have been the owner of the cup carrying the graffito [--- p]av viricvndi.\textsuperscript{910} Paulus is a common name, but it is nevertheless remarkable to have one or more centuriones by the name of Paul(lus) attested not only here at Valkenburg, but also at Nijmegen (multiple occurrences) and at Xanten-Colonia Ulpia Traiana. The cognomen of the soldier, Verecundus, is even more popular but has a relatively strong appearance in the western provinces.

On the base of a terra sigillata dish Dragendorff 15/17 the name Blandus appears, albeit with the letter t. positioned below the n, suggesting that it was forgotten at first and later added.\textsuperscript{911} The graffito cannot be securely dated, but the type of the dish allows for a 1st-century date.\textsuperscript{912} The distribution of the Latin cognomen Blandus shows no conspicuous concentration. The possibly Flavian graffito is the only one that might be associated with the occupation of the fort in phase 4.\textsuperscript{913} It is found on a fragment of a flagon which is difficult to date typologically, but the find context suggests a deposition date between roughly AD 70 and 120. The text is not completely preserved, but the remaining part reads [---v]relitvs [---]. This can best be interpreted as a combination of the names Aurelius and Bitus. Whereas Aurelius is a very common name and attested as both cognomen and gentilicium, Bitus has a clear geographical connotation. This cognomen is Thracian by origin. Since the continuation of the graffito is unknown, it is not clear whether he also carried the gentilicium Aurelius, or whether Aurelius was the name of his commanding officer. Either way, the graffito in question might be taken as signalling a connection with Thracia.

In sum, the graffiti from the fort indicate the presence of infantry as well as cavalry in c. AD 39/40-42 and the presence of cavalry for the period between AD 42 and the Batavian Revolt. They inform us about the name of at least one unit represented here: the cohorts III Gallorum equitata. The Gaulish connotation resonates in several of the recognized proper names as well. For the Flavian period, there is a suggestion of Thracian men present at Valkenburg. This ties with brick stamps and a building inscription naming the cohorts IIII Thracum

\textsuperscript{907} Find no 7085a.
\textsuperscript{908} Find no 6946e.
\textsuperscript{909} Find no 3497.
\textsuperscript{910} Find no 796. Van Giffen 1940-1944, 202, no 24. Placed on a South Gaulish dish Dragendorff 27, stamped by Bassus. NotS: Bassus ii (La Graufesenque), die 4c, date: AD 45-70.
\textsuperscript{911} Van Giffen 1940-1944, 201, no 4. No find no.
\textsuperscript{912} Cf. Polak 2000, 85.
\textsuperscript{913} Cf. Van Giffen 1940-1944, 202, no 33. See also Bogaers 1974b, 452-453.
equitata pia fidelis, which were all found within a short distance south of the fort.914

Valkenburg-Marktveld

Outside the fort more Roman military features have been discovered. The Marktveld site, situated southeast of the fort, housed storage facilities and additional infrastructure between AD 40 and 70 and subsequently a fortlet between AD 70 and 110, plus for a short period (c. AD 80-90) also a watchtower. By the end of the 1st century, the settlement slowly turned into one of a civilian character. The Marktveld excavations have produced a number of graffiti on pottery, of which a relatively small amount are found on 1st-century pottery. Of these, only two graffiti are informative enough to be discussed here, both on South Gaulish terra sigillata dishes. The text of the first graffito is noted as rix[---].915 This text could refer to the male cognomen Rixa, which is a rare cognomen so far only encountered in inscriptions from the Mediterranean region, predominantly from Italy. The second graffito reads let[---].916 Apart from the female name Leto, four cognomina beginning with Let- are listed in OPEL. These names are relatively rare, but they all occur on the Iberian Peninsula. Alternatively, Let- could also be a misspelling of Laet-, but this seems less likely. Thus, the two graffiti from Valkenburg-Marktveld, which can be dated to c. AD 40-70, may represent a connection with Italy and the Iberian Peninsula.

Valkenburg-Veldzicht

In between Marktveld and the fort site lies a terrain known as Veldzicht. It was excavated in the years 1994-1997, with the main discovered features being a Roman road with a small number of adjacent buildings, which appear to postdate the 1st century AD. However, the excavations did yield some graffiti on 1st-century pottery. It has been suggested that waste from the fort had been dumped at Veldzicht, which is situated at only 250 m south of the fort.917 Two name graffiti on 1st-century pottery are worth discussing here. The first graffito is placed on the outer wall of a South Gaulish terra sigillata cup Dragendorff 27 dated c. AD 60-100. It says atto, which appears to be the nominative case of the originally Celtic or Germanic cognomen Atto, particularly popular in Gallia Belgica and the German provinces. The second graffito is also inscribed into the outer wall of a South Gaulish cup Dragendorff 27, but this piece is dated to roughly AD 50-120. The text reads marsa[---], which can most likely be reconstructed as Marsacus, since proper cognomina starting with Marsa- are not known, apart from the female Marsa and Marsalis, attested only once in Rome.918 As we already encountered Marsaci in a graffito from Woerden (dated to c. AD 80-110) and female names are very rare in the collected graffiti as a whole, a reference to Marsacus seems the most probable. The name refers to the Marsaci or Marsacii who are supposed to have lived in the coastal area between Rhine and Scheldt. Perhaps this Marsacus has a connection with the Marsacii attested in Woerden at roughly the same time.919 Together the two name graffiti discussed

915 Find no 210.224 (Provincial Archives for Archaeological Finds Zuid-Holland).
916 Find no 450.045 (Provincial Archives for Archaeological Finds Zuid-Holland).
917 This would explain the relatively large number of 52 graffiti on Roman pottery in general, recovered during these excavations. Polak & De Leur 2009, 83.
918 Marsalis: ICUR IX, 24045.
919 See above, n. 838.
here suggest the presence of men from the Gallo-Germanic North rather than men from the Mediterranean South.

**Velsen**

Several sites in and around the modern-day city of Velsen have yielded Roman material. Graffiti have been recorded at the sites known as Velsen 1 and Velsen 2. Both sites were occupied by the Roman army for only a short period. Velsen 1 has been dated to the years between AD 15 and 30-40. The fortifications at Velsen 2 were probably in use slightly later, probably from AD 39 to around AD 47. Taken into account these periods of occupation, a further chronological subdivision of the graffiti is left out here, because the dating of the individual pieces largely overlap.

**Velsen 1**

In a recent re-examination of the graffiti from Velsen 1, Ton Derks and Berber van der Meulen present a catalogue of 150 items. Although they explicitly state that their overview is far from exhaustive, it may be assumed that the most informative graffiti have been documented. The first part of the current section is primarily based on their account, focusing on the 120 graffiti incised on pottery after firing, 5 graffiti on metal objects and 1 graffito on a piece of worked bone. Of these 126 graffiti, 38 are considered complete or relevant enough to contribute to the research at hand, and will subsequently be discussed.

Seven pieces of pottery show graffiti that begin with a centuria sign. Most of these are incomplete, but in one case the name of the centurio can be reconstructed: Hadmus. This cognomen, which is not further attested, is possibly Germanic in origin. Another graffito on pottery indicating the presence of infantry includes what appears to be the cognomen Auctus as the soldier’s name. Auctus is a common name, relatively popular in northern Italy, and especially as a slave name. Auctus is also encountered on a piece of worked bone, probably once part of a flute. Considering this context, the graffito could be displaying the name of the owner (in the nominative case), but it could also instead convey a characteristic of the flute, indicated by the past participle of the Latin verb *augēre*, ‘to increase’.

To these seven ceramic items showing centuria signs in graffiti, one metal object can be added. This bronze (plate) belt fitting is embellished by a cut-out volute decoration and its outer surface shows traces of silver plating. On the back of the item, a sequence of letters has been punched which starts with a chevron and can further be transcribed as: > *FIRM FLAVI*. This piece of belt fitting apparently once belonged to a certain Flavus, serving in the centuria under command of Firmus. As noted before, the cognomen Flavus was especially

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920 Derks & Van der Meulen in prep. Contrastingly, Bosman (1997, 85) mentions a total number of as many as 509 epigraphic artefacts in his dissertation, but he has not described them all in detail.  
921 Derks & Van der Meulen in prep., no 17. Published separately as *AE* 1997, 1165b.  
922 Derks & Van der Meulen in prep., no 22.  
923 Derks & Van der Meulen in prep., no 132.  
924 Derks & Van der Meulen in prep., no 129. Published separately as *AE* 1997, 1165d.  
925 Described as a saddle fitting by Bosman (1997, 69).  
926 Theoretically, the combination of names could also be interpreted as ‘of Firmius Flavus’, but in that case the piece would have belonged to a centuria as a whole.
popular on the Iberian Peninsula. The name of the centurio, Firmus, is a common
and widespread cognomen.

In addition to these graffiti with centuria signs, another graffito might be
displaying a military indication. It concerns a fragmentary graffito reading [---]
ssi corn[---]. The first part of the text has many possible solutions, most likely
resulting in the genitive case of a cognomen or a nomen singulare. could be a name as well, such as Cornelius, but it is also possible that it instead
mentioned the rank name cornicen or cornicularius, both referring to a military
corn[---]

The first part of the text has many possible solutions, most likely
resulting in the genitive case of a cognomen or a nomen singulare. corn[---]
could be a name as well, such as Cornelius, but it is also possible that it instead
mentioned the rank name cornicen or cornicularius, both referring to a military
corn[---]
corn[---]
corn[---]

remained fragmentary. The completely preserved gentilicia Cominius and Titius suggest an Italic background for the men bearing these

Remarkedly, the combination L. Cominius is also known from graffiti
found at Xanten-Vetera I and Nijmegen-Kops Plateau. It is not impossible that
these refer to the same person.

Eight other graffiti appear to state duo nomina, all consisting of a praeinomen
and a gentilicium. Five are incised on pottery, the others have been found on
metal objects. Not all eight are as certain, but the graffito L. cominius definitely
displays a combination of a praeinomen and a gentilicium, as do the graffiti
reading cn. m[---], l. apr[---], and c. titi. The completely preserved gentilicia
Cominius and Titius suggest an Italic background for the men bearing these
cases. Alternatively, the first part of the text could be the ending of a gentilicium, and the second part the
corresponding cognomen.

C. bromi, once read on the face of a bronze key but now no longer visible,
might at first sight render duo nomina as well, but the name Bromius is so far
only known as a cognomen, predominantly in inscriptions from Italy. A separate
gentilicium might appear in a graffito reading rvf. As mentioned earlier,
Iulius is one of the most frequent gentilicia among the graffiti from the Lower
Rhine area in general, but is also known as a cognomen. At this point in time
and at this location, it could actually signal the presence of auxiliary soldiers.

Contrastingly, the cases of duo nomina most likely reflect the presence of
citizens serving as legionary soldiers.

Among the informative name graffiti four generic Latin cognomina are
recognizable. Dexter, Florus, Ingenuus and Rufus are all four common
cognomina. The name Rufus occurs multiple times in graffiti from Velsen. Two
graffiti both read rvf, and two additional graffiti reading rvf[---] and rv[---]
might well have included the same popular Latin cognomen that originally
meant ‘red-haired’. Apart from the name (or designation) Auctus appearing
twice, there are two more graffiti that probably pertain to one person. They each
consist of the sequence mvr written in ligature, perhaps used as an abbreviation
of the name Murrius. Two graffiti display names or designations that are rare in
Roman inscriptions: acvn and rex.

Strongly represented in the material from Velsen are names with a geographical
concentration on the Iberian Peninsula. Whereas Taurus is also well known

927 Derks & Van der Meulen in prep., no 64.
928 See the section on cognomina or nomina singularia, p. 105-107.
929 See above, n. 856.
930 Derks & Van der Meulen in prep., nos 23, 33, 45, 46, 47 (ceramics), 127, 128, 130 (metal
objects).
931 In later inscriptions, the gentilicium Titius also appears as a so-called pseudogentilicium from
native stock.
932 See above, n. 603 and 604.
933 Derks & Van der Meulen in prep., no 127. Published separately as AE 1997, 1165e.
934 Derks & Van der Meulen in prep., no 43.
935 See the section on duo and tria nomina, n. 421-424.
936 Derks & Van der Meulen in prep., nos 59-62.
937 Derks & Van der Meulen in prep., nos 50-51.
938 Derks & Van der Meulen in prep., nos 6 and 58.
from Italy,939 the names Flavus and especially Lubaecus have a particularly Spanish connotation.940 A lead net weight with LVBAECI incised into it provides a distinctive connection with the province of Lusitania, for the name Lubaecus is attested in thirteen inscriptions of which eleven have been found within the province of Lusitania. The cognomen Celtus is known from the Hispanic provinces as well as from Gallia Narbonensis, but the name could also have been chosen to emphasise a Celtic origin of the man who went by this name.941

Further Celtic connections are mirrored in three other graffiti. The sequence GIR- is rare in onomastics from the Roman Empire, and most likely refers to an originally Celtic name.942 The same goes for the combination KA in another graffito.943 Finally, the graffito text ANII probably also has a Celtic connotation.944 Three remaining singular names are associated with other peripheral regions of the Empire. The name Bato, to be connected with the graffito reading BATO[N--], is primarily known from the Pannonian and Dalmatian provinces (fig. 20).945 A graffito fragment PHI[---] signals a Greek name and could point to the Greek East.946 The earlier mentioned Hadmus adds the Germanic regions to this list.947

Velsen 2

Excavations at Velsen 2 have yielded three further informative name graffiti.948 One reads DIVIX, which probably stands for the originally Celtic or Celtic-Gaulish cognomen Divixtus. On the base of a smooth ware flagon the graffito G BILIVS has been inscribed. Strikingly, this owner’s mark is expressed in the nominative case. The combination of a praenomen and gentilicium implies the presence of legionary forces. The name B(i)lius appears to be quite rare, with most likely a Mediterranean association. Based on the find context, the flagon can be dated to the years AD 40-47. The same goes for a fragment of pottery that carries the remainder of a graffito ending in [---]LERC. It has been suggested that the complete name was probably Aulercus,949 but a gentilicium Lercius is also attested. If the graffito indeed referred to a person called Aulercus, then this person probably originated from Gallia Lugdunensis where the people of the Aulerci are supposed to have had their home territory.

In sum the graffiti from Velsen 1 and Velsen 2 signal the presence of legionaries as well as auxiliaries. The men came from different parts of the Empire. The legionaries probably originated from the Mediterranean heartland, especially

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939 Derks & Van der Meulen in prep., no 66.
940 Derks & Van der Meulen in prep., nos 129 and 131.
941 Derks & Van der Meulen in prep., no 19.
942 Derks & Van der Meulen in prep., no 37.
943 Derks & Van der Meulen in prep., no 44.
944 Derks & Van der Meulen in prep., no 9.
945 Derks & Van der Meulen in prep., no 14. Published separately as AE 1997, 1165a, with the deviant reading bata[v]. See also Zandstra 2015 for a more detailed discussion of this graffito.
946 Derks & Van der Meulen in prep., no 55.
947 See above, n. 921.
948 Bosman 2012; Bosman 2016, 65.
949 Bosman 2012; Bosman 2016, 65.
Italy, southern Gaul and the southeast of the Iberian Peninsula. More peripheral regions as Pannonia and the more northern Gallic and Germanic territories are likely to include the homelands of auxiliaries. Especially men from the later conquered northwestern areas of the Iberian Peninsula were probably auxiliaries rather than legionaries. Since Velsen is considered as a fleet station a name hinting at the presence of a Greek-speaking person is not out of place here, for men from the Hellenophone regions of the Empire are especially found among navy soldiers. It must, however, be reiterated that the association between Greek names and the fleet is not exclusive.

River finds associated with the Roman army

Between Kekerdom and Millingen

A bronze bucket that reportedly has been found in the river Waal east of Nijmegen, between the villages of Kekerdom and Millingen, suggests a military presence in this region. The everted rim of this Östland bucket shows a punched inscription that has only partly survived: t.m[---]ΑΡ. Consequently, we do not know the complete name of the owner(s). However, the singular Τ followed by a high stop indicates that the bucket once belonged to one or more cavalrymen. Although the possibility cannot be ruled out that Τ stands for the praenomen Titus, a comparison with similar buckets makes it likely that this type of vessel belonged to a turma rather than an individual soldier. The bucket can be classified as a vessel of Eggers type 38, which is generally dated to the 1st and 2nd centuries AD. It is therefore possible that during the 1st century AD a Roman cavalry unit was stationed somewhere on the south bank of the river Waal, not far from Kekerdom and Millingen.

A saucepan dated to the late 1st century AD is also said to have been found in the Waal near Kekerdom. On the base the text VALERI SVCESSI , Valeri(i) Successi, has been punched. The saucepan was thus once owned by a certain Valerius Successus. Whether he belonged to a military unit, perhaps the one mentioned on the rim of the bucket described above, cannot be stated with certainty. The gentilicium Valerius is Italic in origin, but appeared in high numbers throughout the whole Empire. Successus was a common name, with the highest concentrations in Italy, Gallia Narbonensis and Noricum. In the past, a second, more indistinct punched inscription on the handle of the casserole has been interpreted as optio s(pe) i(ordinis) I(centuria) A[-_]u(? ) Rus/ o(nis), but the inscription is too vague to support this reading and to state with certainty that Valerius Successus was indeed an officer of a legio I.

Heteren-Driel

In the 1960s a large fragment of a smooth ware flagon was found during excavations in the foreland of the river Rhine near Heteren-Driel, about 6 km downstream of Arnhem-Meinerswijk and only c. 1.5 km from where a large number of Roman metal objects, known as the Doorwerth hoard, had been found. Den Boesterd 1956, cat.no 131. See the second find from Maurik described in this chapter, n. 759. The graffiti on the bucket in question refer to infantry subunits. Den Boesterd 1956, cat.no 22 with plate XVIII.22c. Kakoschke 2006, GN 1346. AE 1956, 170. See also Kakoschke 2008, CN 2952 , no 5, and Richier 2004, 173-175, no 36. Please note that they – erroneously – assume that the saucepan has been found at Nijmegen.
dredged from the river.\textsuperscript{956} The shoulder fragment shows the graffito \textit{Sallios C tvrm s m}. The text is not easily solved. A gentilicium Sallius is attested in a small number of inscriptions mainly from Italy. However, the ending in \textit{-os} of \textit{Sallios} is probably a Gaulish feature, applying the Celtic nominative of names of the \textit{o}-declension.\textsuperscript{957} The \textit{c} has been interpreted as the abbreviation for \textit{Caii}, and the final letters \textit{s m} for the common votive formula \textit{solvit merito}.\textsuperscript{958} By analogy with a similar find from Aalen tvrm may best be interpreted as referring to a turma.\textsuperscript{959} With this interpretation, a genitive \textit{Caii} could be referring to the decurio in command of this subunit, although Caius or Gaius is mainly known as a praenomen, and praenomina were hardly used in such references. It thus appears that a cavalryman \textit{Sallios} has deposited this flagon as a votive offering. Although the flagon is only partially preserved, its combined features suggest that this happened in the late 1st century, perhaps early 2nd century AD.\textsuperscript{960} This find might then suggest that cavalry was present at that time in the vicinity of Heteren-Driel. This might strengthen the hypothesis that a Roman fortification had been built on the south bank of the river east of Driel, as will be further elucidated in the next section.

\textbf{Doorwerth}

During dredging activities at the end of the 19th century an extraordinary large number of Roman metal objects was recovered from the Lower Rhine near Doorwerth.\textsuperscript{961} Although the exact location is not known, it is generally accepted that the objects were found not far from where a small ferry, called the Drielse veer, crosses the river.\textsuperscript{962} On the northern bank it moors near the place where a small stream flows into the Lower Rhine. The valley of this small stream, the Seelbeek, probably served in the Roman period as a corridor across the ice-pushed ridges, leading from Nijmegen across the river into the Veluwe region.\textsuperscript{963} It is not unlikely that a Roman fortification was constructed facing this stream valley on the south bank of the river Rhine to oversee the traffic. It would then have been situated in between the fort at Arnhem-Meinerswijk, c. 5 km to the east, and the presumed fort at Randwijk, c. 10 km to the west.\textsuperscript{964} However, there are so far no traces known from such a construction in the vicinity of the Drielse veer,\textsuperscript{965} and since the exact findspot of the bronze items is also uncertain, this must remain a hypothesis with considerable reservation.

Six items among the over two hundred bronze objects found here carry one or more graffiti. Firstly, two bronze saddle fittings were marked by their

\textsuperscript{956} Bogaers 1966a. See for the Doorwerth hoard and the possibility of a military installation in the vicinity, n. 976-980.  
\textsuperscript{957} Cf. Mullen 2011, 537.  
\textsuperscript{958} Although they are both uncommon elements in graffiti, better solutions for the \textit{c} and the combination \textit{s m} in this graffito could not be found so far.  
\textsuperscript{959} The flagon from Aalen carries the text \textit{decoratvs tvrma pris}, Decoratus from the turma of Priscus. Kemkes & Scheuerbrandt 1997, 51, fig. 61. An abbreviation of a proper name, such as Turmarus (cf. Grünewald, Pernicka & Wynia 1980, 259, pl. 42) is also a possibility, but less likely in this combination.  
\textsuperscript{960} The sharp transition from body to neck in combination with the cylindrical neck and the maximum width resting amply above half of the body height allows for a classification as a flagon type Stuart 107. This is strengthened by its off-white, beige colour.  
\textsuperscript{961} Holwerda 1931.  
\textsuperscript{962} Brouwer 1982, 147, n. 11.  
\textsuperscript{963} Schaafsma 2003, 18.  
\textsuperscript{964} The distances appear rather small, but the example further downstream of the fort at Utrecht-Domplein situated at about 5 km distance to contemporary forts at Utrecht-Hoge Woerd and Bunnik-Vechten shows that this small distance is not impossible.  
\textsuperscript{965} It has been suggested that a Roman fort was once situated more to the south, at Driel-De Baarskamp, but archaeological features to substantiate this claim are lacking.
(presumable) owner. The inscriptions both read m. MVTTIINI. Muttienus is a rare gentilicium, only known from inscriptions found in Italy and on the Croatian coast. The combination of a praenomen and a gentilicium suggests that the owner was a Roman citizen, hence probably a legionary soldier or an officer, although it does not seem likely that officers needed to mark their belongings in such a way. The Mediterranean association of the name Muttienus strengthens the idea that he served with the legions. The large set of horse gear, to which these saddle plates belong, has (stylistically) been dated to the years AD 35-45. If the deposition of this set is related to events surrounding the Batavian Revolt in AD 69/70, as has been suggested, it would mean that the horse gear had already been in use for at least twenty-five years. This is not impossible, but it would stretch the use of these items to a maximum.

Two other objects also show a mark of a single owner. A bronze jug and a bronze handled dish both carry a punched inscription mentioning a C. Valerius Belliccus (C VALERI BELLICCI). The tria nomina implies ownership by a Roman citizen, but the gentilicium Valerius is far more common than the name Muttienus. Whereas the owner of the saddle came most likely from Italy or the Adriatic region, the cognomen Belliccus rather points to the western, Celtic provinces. This set of jug and handled dish can be classified as Nuber service E (‘Millingen’). This service was probably produced from the late Tiberian period until the late 2nd or early 3rd century AD. Most examples date from the second half of the 1st or the beginning of the 2nd century AD.

Another metal vessel shows a punched owner’s mark on the base of its handle (fig. 21). The vessel is a small casserole which can be dated to the second half of the 1st century AD. The punched in letters constitute a two-lined graffito which in the past has been interpreted as the tria nomina C. Enterius Liber. Apart from the further unattested gentilicium Enterius, the interpretation appears to be incorrect when the graffito is investigated anew. The text is better transcribed as LIBER / CENEIVS. This can still be interpreted as a tria nomina, but rather the combination of the Latin cognomen Liber, which was far from common, followed by what appears to be the duo nomina C. Eneius. Only one other attestation of the gentilicium Eneius could be found. It is mentioned in a funerary inscription set up in Rome to the memory of a soldier of the Praetorian Guard.

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968 Holwerda 1931, 26; Brouwer 1982, 166.
969 RMO inv.no e 1931/2.289 (jug) and e 1895/10.8 (dish). At the beginning of the graffito, there appears to be punched in a small symbol resembling something in between a Greek letter gamma and a v. It is unclear what function this symbol has, if any.
970 Cf. Moszy 1985, 63 (written with one C). The variant with double C is only attested in Gaul.
972 RMO inv.no e 1895/10.11. For the date of this casserole, cf. Petrovszky 1993, 72-73, type V,3.
who originally came from Bologna.\textsuperscript{973} The unusual sequence of the cognomen in front of the duo nomina may be due to the later decision of punching in another part of the name, perhaps because only the cognomen or only the duo nomina did not suffice. The owner of this casserole appears to have been a Roman citizen, just as the authors of the already discussed graffiti from Doorwerth.

The sixth and last graffito is found on a measurement instrument called a mitre square. Only one line of multiple punched graffiti on the legs of the instrument is now readable. Discernible at the beginning is a centuria sign in front of \textit{pvsilli} and what appears to be the combination \textit{ors}, followed by \textit{terti}, in larger letters. The centuria sign signals infantry. After the centuria sign we would expect a cognomen rather than a gentilicium. This gives reason to think that the punched letters are rather to be read as \textit{pvsillionis} when we reinterpret and connect the unexplained combination \textit{ors} to this. Pusillus and Pusillio are both Latin cognomina derived from the Latin adjective \textit{pusillus}, meaning ‘small, puny’. They are not frequent outside Italy.\textsuperscript{974} The name Pusillus is also present among the graffiti from Bonn, but there it is found on a probably much earlier, Arretine vessel dating from the first decade BC or the first decade AD.\textsuperscript{973} The final part of the graffito consists of \textit{terti}, which is most likely the genitive case of Tertius. Tertius is a very common and widespread cognomen. All in the punched line on the mitre square dredged from the river seems to tell us that the instrument once belonged to a Tertius serving under the command of a centurio called Pusillus or Pusillio who probably came from Italy.

When the six graffiti are considered together, they suggest that the collection of bronze objects found here in the river near Doorwerth were once in the possession of legionary soldiers or soldiers serving in an auxiliary citizen unit. Strikingly, there are hardly any weapons among the preserved finds, which is in marked contrast to for instance the find complex from Xanten-Alte Rhein.\textsuperscript{976} The only weapons listed are a sword blade with decorated scabbard and a ribbed shield boss.\textsuperscript{977} It could be that the objects were taken from soldiers in the Roman army, and subsequently lost by enemy forces. Jan Hendrik Holwerda, who first published this hoard of bronze objects, put forward an association with the Batavian Revolt. This association seems now to be too early in date, at least for some of the bronze vessels. Based on the refined dating it is better to assume a later date, namely late Flavian, for these objects.\textsuperscript{978} Apart from the difference in date, the collection of finds may have ended up in the river other than as lost booty. The patina on one of the casseroles shows a clear divide.\textsuperscript{979} The vessel must have been placed in another, and must have stayed there after deposition, until it was dredged up from the river bed at the end of the 19th century. Perhaps they were buried intentionally, not far from the river bed, to recollect them later, but they were never retrieved before the river bed moved over them.\textsuperscript{980} Another possibility is that a fortification was situated not far from the findspot of the bronze objects, and that the archaeological traces may have been washed away by the river due to heavy flooding, including hundreds of bronze objects.

\textsuperscript{973} \textit{CIL} VI 2465.
\textsuperscript{974} Especially the cognomen Pusillus/a appears to point to the Celtic regions, with a notable focus in Gallia Cisalpina.
\textsuperscript{975} Bakker & Galsterer-Kröll 1975, G.Nr. 183. See n. 465.
\textsuperscript{976} See n. 565.
\textsuperscript{977} For the ribbed shield boss, see n. 1192.
\textsuperscript{978} Petrovszky 1993, 82.
\textsuperscript{979} RMO inv.no e 1896/10.3.
\textsuperscript{980} Compare the interpretation of the bronze hoard from Nistelrode (Jansen 2010).
The inclusion of a mitre square showing an inscribed centuria sign pleads for a military connection.

Helmets from the Lower Rhine area

In the Rhineland, several helmets from the Roman period have been found showing similar graffiti. Most of these helmets are river finds. Because of the similarities in their graffiti and their find contexts, these inscribed helmets will be discussed here together.

In his 1974 study of Roman helmets found within the territory of Germania inferior, Hans Klumbach describes ten 1st-century helmets with owner’s marks that were discovered in the river delta.\footnote{Klumbach 1974, nos 5, 9, 14, 17-19, 22-24, 33. Please note a different reading for the graffito on helmet no 19: \textit{frvrt / ivni sencvdi}. Eight of the ten helmets are classified as types which were in use in the pre-Flavian period.} Nine of these marks refer to infantry units by way of centuria signs. Moreover, all helmets appear to have been owned, at least temporarily, by men who carried more than one nomen and were therefore probably Roman citizens. The gentilicia mentioned in the punched inscriptions can generally be classified as Italic in origin, although some are considerably more common than others.\footnote{Whereas Cornelius (on a helmet found at Wissel) and Valerius (on a helmet reportedly found at Cologne) are very common gentilicia, Pritonius (on the same helmet from Cologne) and Revius (on a helmet found at Xanten) are not known from other sources.} In combination with the established early date of most of the helmets, the presence of Roman citizens serving as infantrymen in the Lower Rhine area can be linked with the activities of the various legions that were stationed in this region until the beginning of the 2nd century AD. This is supported by the mentioning of the \textit{legio XVI} in one of the graffiti on a helmet from presumably Cologne.\footnote{Klumbach 1974, no 9.} The tenth mark is not placed on an infantry helmet but on a cavalry helmet, more precisely on its browband.\footnote{Klumbach 1974, no 33.} The helmet, of the Weiler type, was reportedly recovered from the river Waal near Nijmegen and can be dated to roughly the second half of the 1st century AD or the first half of the 2nd century AD.\footnote{Cf. Fischer 2012, 205-210; Negin 2015, 41.} The preserved graffito lacks a military indication. The part that is still discernible reads \textit{Vanni}. Vannius is a gentilicium with a Norico-Pannonian signature. The helmet appears to have belonged to a horseman, perhaps an officer, who had a connection with the broader region along the Danube.

Not included in Klumbach’s study is a fragmented helmet found in a dredge pit near Amerongen (‘t Spijk) in 1973/1974. The helmet can be classified as of the Weisenau type, the late variant to be more precise, dating from the late 1st century AD.\footnote{Klumbach 1974, no 9.} It carries a punched mark \textgreater rebvrri. Although the name of the actual owner of the helmet is not preserved, the name of the centurio is expressed by the cognomen Reburrus which has a strong connection with the Iberian Peninsula.\footnote{Nicolay 2007, 17, 187, table 5.3, no 11.}

Since Klumbach’s inventory, more helmets have been found. In 1979 three helmets were found in the foreland of the Rhine at Rijswijk, 4 km downstream from the presumed fort at Maurik.\footnote{Van Es 1984; Nicolay 2007, 187, table 5.3, no 15.} One of the helmets showed three multi-lined graffiti on the neckguard. The helmet can be classified as of the Weisenau type.
and dates from the late 1st century AD. According to the graffiti, the helmet was owned by at least two soldiers who both served under the command of centurio Antonius Fronto. One graffito names a T. Allien(i)us Martialnis (sic) as the owner, the other two refer to a Statorius Tertius. The gentilicia of the two soldiers suggest that they originated from Italy, for both Allien(i)us and Statorius can be classified as (rare)Italic gentilicia. Martialis as well as Tertius are common Latin cognomina, but with Tertius more concentrated in the Mediterranean region than Martialis.\footnote{Tertius: Mócsy 1985, 61; Martialis: Mócsy 1985, 66.} The gentilicum and the cognomen of the centurio are both common, although the cognomen Fronto has relatively many attestations in Italy, Gallia Narbonensis and Hispania as well as Moesia and Dacia.\footnote{Mócsy 1985, 66.} Remarkably, the first soldier appears to have included also his praenomen in the graffito. Although a singular T in graffiti is often best explained as an abbreviation for turma, the centuria sign at the beginning of the first line of this graffito makes that explanation redundant. The occurrence of a praenomen in one of the three graffiti might suggest that the author of that graffito is the first owner and that this ownership may be dated relatively early, perhaps around the middle of the 1st century AD. The occurrence of duo and tria nomina in these graffiti implies that the owners of the helmet were legionary soldiers, which is substantiated by the Italic character of the gentilicia.\footnote{Van Es (1984, 274-276) suggests that this helmet could also have belonged to auxiliary soldiers from a unit with the title civium Romanorum. I consider this possibility not as likely.} However, the owners might also have been members of a cohors Ingenuorum or Voluntariorum, raised during the Augustan period. Soldiers serving in these units were on enlistment already in the possession of Roman citizenship and therefore allowed to carry the tria nomina.\footnote{See the section on auxiliary recruitment, p. 55.}

Dredging activities during the 1980s and early 1990s at Xanten-Alte Rhein have amongst many other things produced a helmet of the Hagenau/Coolus type with multiple graffiti on its neck guard.\footnote{Schalles & Schreiter 1993, 178-180, Mil 1.} Apparently, the helmet was once the propriety of various men. Their names are not clearly readable anymore, but it can be concluded that they served in legio XXI (Rapax). This legion was stationed at Vetera after the Varian Disaster until AD 43; the helmet must therefore be dated to this timeframe. With the mentioning of the legion, this find supports the assumption that these graffiti on early helmets are likely to refer to legionary soldiers.

The final helmet discussed here is not a river find. In early 2011 a helmet of the type Hagenau/Coolus was found in a field south of the village of Kesteren.\footnote{Presented online at http://www.museumhetvalkhof.nl/collecties/recente-aanwinsten/1055-een-romeinse-helm-met-drie-inscripties.html (retrieved on 31 July 2015). See also Van der Heijden & Koster 2017, 21.} The helmet can be dated to the pre-Flavian period. On the neck guard of the helmet three graffiti have been punched into the metal, which attest to the presence of men bearing tria nomina and serving in infantry units, who most likely were legionary soldiers. At least two, but probably all four of the identified soldiers came from the Mediterranean region.\footnote{Although the helmet has been dated to AD 50-70, the occurrence of at least four duo nomina (without cognomina) combined with the relatively early date implies that the recognized soldiers Titus Varromius, Cainus Julius and Titus Julius as well as centurio Lucius Mettius originally came from the Mediterranean heartland of the Empire. Cf. Kakoschke 2006, GN 800 (Mettius) and 1355 (Varronius).} Although it is assumed that a fort was situated somewhere between the centre of Kesteren and the river Rhine (to the

\footnotesize
989  Tertius: Mócsy 1985, 61; Martialis: Mócsy 1985, 66.
990  Mócsy 1985, 66.
991  Van Es (1984, 274-276) suggests that this helmet could also have belonged to auxiliary soldiers from a unit with the title civium Romanorum. I consider this possibility not as likely.
992  See the section on auxiliary recruitment, p. 55.
993  Schalles & Schreiter 1993, 178-180, Mil 1.
995  Although the helmet has been dated to AD 50-70, the occurrence of at least four duo nomina (without cognomina) combined with the relatively early date implies that the recognized soldiers Titus Varromius, Cainus Julius and Titus Julius as well as centurio Lucius Mettius originally came from the Mediterranean heartland of the Empire. Cf. Kakoschke 2006, GN 800 (Mettius) and 1355 (Varronius).
north),\textsuperscript{996} it cannot be stated with certainty that one or more of the owners of the helmet were once stationed there.

Shield bosses from the Lower Rhine area

A shield boss from the river Waal near Nijmegen shows a graffito, but also stands out because of its peculiar shape, marked by a rib (spina) over the curved body. In total three shield bosses of this type have been found in the Lower Rhine region. They can be classified as belonging to shields used by auxiliary cavalrymen, probably with a background in Germany magna or even further away.\textsuperscript{997} One of the three is part of a grave assemblage found at Voerde-Mehrum (near Wesel), which can be dated to the middle of the 1st century AD. This gives a provisional dating for the specimen recovered from the river Waal near Nijmegen. The shield boss shows a punched graffito reading \textit{verinirfi} (fig. 22). The most logical explanation would be that the text should be read as \textit{Verinii Rufi}, meaning that the shield once belonged to a Verinius Rufus.\textsuperscript{998} This combination of the gentilicium Verinius and the common Latin cognomen Rufus suggests that the soldier in question held Roman citizenship. Since the combination of gentilicum and cognomen is not common before AD 50, this shield boss may be dated to the second half of the 1st century AD. Remarkably, the cognomen has not the Germanic character associated with the hypothesised Germanic origin of this type of shield boss. Rufus is a common cognomen with no distinct geographical concentration. Verinius appears to be a gentilicum derived from a cognomen, namely Verinus. As a so-called pseudogentilicium it is especially well attested in post-Flavian inscriptions from Germany inferior.\textsuperscript{999}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image}
\caption{Graffito on a shield boss from the river Waal near Nijmegen (inv. no BE.XIV.10a). Photo: Museum Het Valkhof.}
\end{figure}

\textsuperscript{996} Lauwerier & Hessing 1992, 82.
\textsuperscript{997} See p. 213-214.
\textsuperscript{998} Museum Het Valkhof, inv.no BE.XIV.10a; Abeleven & Bijleveld 1902, 35, no 10a; Nicolay 2007, 24, 169, table 5.3, no 20.
\textsuperscript{999} Cf. Kakoschke 2004, 12.
This later ‘native’ association cannot be directly connected to the supposed Germanic background of this earlier shield boss.

**V.3 Summary**

The collection and analysis of 1st-century graffiti from military sites along the Lower Rhine have shown that the inscribed texts contain not only personal names that can be associated with specific geographical regions or with civilian status, but also military ranks and indications, even names of units. This concluding overview aims to bring the various pieces of information together, with a focus on the data that can tell us more about the identity and mobility of the Roman army troops operating in the Lower Rhine area during the 1st century AD.

**V.3.a Military indications**

*Names of units*

In the graffiti specific legions as well as auxiliary cohortes and alae are named. The presence of some units was already known from other sources, mainly monumental inscriptions, but in several cases the graffiti add new information to our knowledge about the composition of the Roman army in the research area. The following table presents a list of the military units appearing in the graffiti, next to all the military units attested in other sources for the Lower Rhine area (table 13). One of the first, more general features that catches the eye is the concentration of pre-Flavian indications in the eastern part of the research area. This ties in with the later development of the western part of the Lower Rhine limes, from Caligula onwards.

*Legio V Alaudae*, *legio X Gemina* and *legio XXI Rapax* were already known to have been stationed at respectively Neuss, Nijmegen and Xanten. The tabula ansata with graffito found in a Tiberian context at Neuss now provides evidence for the presence of *legio V Alaudae* at this site earlier than previously thought, namely prior to the Claudio-Neronian period.

Furthermore, the graffiti provide new insights into the garrison of Nijmegen-Kops Plateau. The link between the senior centurio Aquilius named by Tacitus and the centurio of *legio VIII Augusta* C. Aquillius Proculus, who left an inscribed silver-plated disc at Nijmegen-Kops Plateau, suggests that at least a vexillatio of the legion was present here during the Batavian Revolt. At that time, the legion had its main station at *Novae in Moesia* (presumably since AD 44), but there are indications that soldiers of the *legio VIII Augusta* participated in various campaigns throughout the Empire, from the invasion of Britannia in AD 43 to the war against king Mithridates II on the Crimean Peninsula between AD 45 and 49 and the conquest of Thrace in AD 46. After the Batavian Revolt, Mirebeau-sur-Bèze became the main station of the legion, followed by Strasbourg from AD 90.

There seems to be another legion mentioned in graffiti from the Kops Plateau, but this unit cannot be definitively identified. The abbreviation LIC or LIG might stand for a *legio I* with a title starting with G. If we continue along this line, *legio I Germanica* is probably the best candidate, based on current knowledge. Haalebos suggested to link the abbreviation with a *legio I Gallica* – which is hardly known on its own account – because *legio I Germanica* is assumed to have existed only from AD 9 onwards and the graffito in question dates from c. 10 BC. However, the graffito from Nijmegen-Kops Plateau may be held as an indication for an earlier existence of this legion, or rather for a different reconstruction of its history. It may be that the early *legio*...
<table>
<thead>
<tr>
<th>Findspots / military sites</th>
<th>Units attested by graffiti</th>
<th>Units attested by monumental inscriptions, brick stamps, literary sources</th>
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</thead>
<tbody>
<tr>
<td>Remagen</td>
<td>cohors VIII Breucorum</td>
<td>cohors II Varicanorum eq cR pf cohors I Flavia Hispanorum eq pf</td>
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<td></td>
<td>cohors I Thracum</td>
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<tr>
<td>Bonn</td>
<td>cohors Seleucensium</td>
<td>legio I (Germanica) legio XXI Rapax ala (Tungrorum) Frontoniana</td>
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<td>cohors I Thracum? ala Pomponiana ala Longoniana cohors V Asturum</td>
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<td>legio XXI Rapax legio I Minervia</td>
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<td>Cologne-Alteburg</td>
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<td>classis (Augusta) Germanica</td>
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<td>Dormagen</td>
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<td>Neuss</td>
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<td>legio I - vexillatio ala (Indiana)? ala Noricorum?</td>
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<td>legio V Alaudae</td>
<td>legio I (Germanica) legio V Alaudae legio XX Valeria Victrix</td>
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<td>ala Parthorum veterana</td>
<td>legio XVI (Gallica) ala Gallorum Picentiana cohors III Lusitanorum eq?</td>
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<td>legio VI Victrix</td>
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<td>Krefeld-Gellep</td>
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<td>Moers-Asberg &amp; M.-Lauersfort</td>
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<td>ala Afrorum? ala Sulpicia cR cohors II Varicanorum eq cR pf</td>
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<td>ala I Tungrorum Frontoniana</td>
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<td>legio V Alaudae</td>
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<td>legio XXI Rapax</td>
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<td>legio XV Primigenia</td>
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<td>Xanten-pre-colonia</td>
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<td>Xanten-Alte Rhein</td>
<td>legio XXI Rapax</td>
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<td>Altalkar</td>
<td>(vexillatio) legio I?</td>
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<td>ala Noricom Chapter 1</td>
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<td>ala Nothom Chapter 2</td>
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<td>Til-Steincheshof</td>
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<td>cohors II eq cR pf?</td>
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<td>Herwen-Bijlandse Waard</td>
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<td>(vexillatio) legio I?</td>
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<td>cohors II eq cR pf?</td>
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<tr>
<td>Nijmegen-Kops Plateau</td>
<td>legio VIII Augusta</td>
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<td>legio I G-</td>
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<td>Nijmegen-Hunsterberg</td>
<td>legio X Gemina</td>
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<td>legio II Adiutrix</td>
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<td>legio X Gemina</td>
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<td>Arnhem-Meinerswijk</td>
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<td>Maurik</td>
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<td>cohors II Thracum eq</td>
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<td>cohors II Hispanorum eq</td>
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<tr>
<td>Bunnik-Vechten</td>
<td>cohors I Classica?</td>
<td>cohors I Flavia Hispanorum eq cohors II Britorum m eq?</td>
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<td>Utrecht-Dompelen</td>
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<td>cohors II Hispanorum pf</td>
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<tr>
<td>Utrecht-Hoge Woerd</td>
<td>cohors I Thracum</td>
<td>cohors XV Voluntariorum cR cohors I Classica pf</td>
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<td>Woerden</td>
<td>cohors XV Voluntariorum</td>
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<td>cohors XV Voluntariorum</td>
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<td>Alphen aan den Rijn</td>
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<td></td>
<td>cohors VI Breucorum</td>
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<td>Leiden-Roomburg</td>
<td>cohors XV Voluntariorum</td>
<td>cohors XV Voluntariorum cohors I Lucensium Hispanorum eq</td>
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<td></td>
<td>cohors XV Voluntariorum</td>
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<tr>
<td>Valkenburg-fort</td>
<td>cohors III Gallorum eq</td>
<td>cohors IIII Thracum eq pf</td>
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<td>Valkenburg-Marktveld &amp; V.-Veldzicht.</td>
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<td>Velsen 1 &amp; 2</td>
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<td>Keekerdom/Millingen (river finds)</td>
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<td>Heteren-Dheli &amp; Doorwerth (river finds)</td>
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<td>L. Rhine area (river finds: helmets and shield bosses)</td>
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</table>
*I Augusta* lost its title *Augusta* in 19 BC after disgraceful behaviour in the war against the Cantabri, but was reinstated by Tiberius and received the new title *Germanica* for honourable conduct against Germanic foes. All in all, the reading of the graffito is too uncertain to serve as a firm base for this reconstruction, but the described scenario may be considered in connection with possible evidence distilled from other sources.

The evidence for the presence of legionary soldiers outside legionary fortresses ties in with a few passages in Tacitus’ writings. Firstly, he mentions that in AD 14 legionary soldiers detached from the main body of their units (vexillarii) operated in the homeland of the Chauci, the region between the rivers Ems and Elbe in northern Germany. Elsewhere, in his description of castellum Flevum, which has been equated with Velsen 1, he remarks that the fort was manned by ‘citizens and allies’ (*civium sociorumque*). Presumably, the garrison consisted of both legionary and auxiliary soldiers.

With regard to auxiliary units, the graffiti yield even more new information. Firstly, the mobilia showing the name of the cohors XV Voluntariorum *civium Romanorum* at Woerden and Leiden-Roomburg are overlapping in date. This could mean that the unit was transferred from one fort to the other in the timeframe of AD 85-110, but it is also possible that detachments of the cohort were stationed simultaneously at the two sites.

The association between cohors I Seleucensium and Bonn exists only through a graffito. The presence of men associated with this auxiliary unit can be related to some point within the time span of AD 40-80, based on the age of the vessel that carries the graffito. An earlier gravestone for a member of this unit has been found at Moers-Asberg. The gravestone dates from the first half of the 1st century AD. Since the *ala Frontoniana* was stationed at Moers-Asberg in the Claudio-Neronian period, the *cohors I Seleucensium* will have been the previous garrison of the fort at Asciburgium. From this follows that the cohors will probably have moved from Moers-Asberg to Bonn, but it is not certain whether this applied to the whole unit or just a detachment.

A graffito punched in a bucket found at Maurik suggests that cohors II Thracum *equitata* was stationed in the vicinity during the Flavian period. Another nominally Thracian unit, a cohors I Thracum, is attested through a find from Utrecht-Hoge Woerd. The bronze fitting with punched graffito might date from the Flavian period, but there could also have been a cohors I Thracum operating in Germania inferior throughout the pre-Flavian era. In that case, Hoge Woerd may have been its station for some time before AD 70.

The preserved addresses on two of the wooden writing tablets from Valkenburg inform us that cohors III Gallorum *equitata* constituted the garrison of this site. The find context of the pieces of wood indicate that the presence of this nominally Gaulish auxiliary unit at Valkenburg is to be expected for the period c. AD 40-47, possibly even until the Batavian Revolt.

**Infantry or cavalry**

Centuria signs and abbreviations for the term turma are considered as general indications for infantry and cavalry, respectively. These are the most frequent indications, but specific military ranks can also indirectly demonstrate the presence of infantry or cavalry at a site. These ranks will be discussed in more detail.

1001 Cf. Cassius Dio 54.11.
1003 Tac. *Ann.* 1.38.2.
1004 Tac. *Ann.* 4.72.3.
When all the indications from the research area are listed, it can be concluded that there are no significant differences between the two types of indications as used in graffiti. Their total number amounts to 124 indications, with 90 infantry and 34 cavalry indications. The total number is higher than those referred to by Pfahl and Schmidt Heidenreich, 1005 but it is still only slightly more than 100. This makes it difficult to base sound conclusions on this data collection. Nevertheless, it is remarkable that the number of cavalry indications amounts to less than half the number of infantry indications. A significance test shows that indeed infantry indications are significantly more present in this dataset than cavalry indications in the next section. Here, a general inventory of infantry and cavalry notices in graffiti from the Lower Rhine region will be presented (table 14, first and second column).

<table>
<thead>
<tr>
<th>Findspots</th>
<th>Infantry</th>
<th>Cavalry</th>
<th>Roman citizens</th>
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<tbody>
<tr>
<td>Remagen</td>
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<td>Bonn</td>
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<td>Cologne-Alteburg</td>
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<td>Dormagen</td>
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<td>Moers-Aseberg &amp; M-Lauersfort</td>
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<td>Xanten-Vetera I</td>
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<td>Xanten-pre-colonia</td>
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<td>Xanten-Alte Rhein</td>
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<td>L. Rhine area (river finds: helmets* and shield bosses)</td>
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Table 14 Indications for infantry, cavalry and Roman citizens in the graffiti. Red = pre-Flavian, blue = Flavian, black = generally 1st century AD.

■ = certain attestation; 
□ = possible attestation.
* In these cases graffiti featuring unit names are included as well, in order to complete the general picture of the ratio infantry-cavalry and legiones-auxilia.

1005 Pfahl 2012, 73; Schmidt Heidenreich 2016, esp. 519. See also p. 101-102.
indications. This indicates that infantrymen outnumbered the cavalrymen in the Lower Rhine area, or that infantrymen were more inclined than cavalrymen to mark their belongings with graffiti. The overall higher number of infantry units known to have operated in Germania inferior obviously supports the former suggested explanation.

When their distribution over individual sites in the research area is considered, infantry indications are slightly more frequent than cavalry, with infantry (potentially) attested at nineteen sites and cavalry at fourteen sites; ten sites have both categories. The indications are fairly equally distributed among the pottery and the metal objects. Metal objects dominate among the finds that came up during dredging activities, such as those at Xanten-Alte Rhein, Herwen-Bijlandse Waard and Maurik. This must be taken into consideration when comparing the finds from the various sites in the research area.

When we take a closer look at the distribution along the Lower Rhine, it becomes clear that in most cases the graffiti confirm what has been deduced from literary sources and inscriptions about unit deployment in this region. In some cases, however, the graffiti provide us with new information.

For Bonn, Neuss, Xanten-Vetera I, Herwen-Bijlandse Waard, Nijmegen-Hunerberg, Bunnik-Vechten, Woerden, Alphen aan den Rijn, Leiden-Roomburg, Valkenburg-fort and Velsen (see table 14), there was already evidence for the presence of infantry soldiers. This list can be extended through an analysis of the graffiti. Firstly, infantry is attested for the pre-Flavian period at Nijmegen-Kops Plateau. The presence of infantry at Woerden is now also shown for the Claudio-Neronian period. Infantry soldiers are further identified at Xanten in the pre-colonia settlement, with the notable exception of one graffito with a centuria sign on a horse gear pendant, which points to legionary cavalry. This legionary cavalry may well have been stationed at the nearby Fürstenberg, but it could also have been sent from elsewhere, for instance as part of reinforcements during the Batavian Revolt.

The presence of infantry in the pre-Flavian period at Arnhem-Meinerswijk is less certain. In the Flavian period infantry is indicated at Zwammerdam and possibly also at Maurik and Utrecht-Hoge Woerd. At Alphen aan den Rijn infantry soldiers appear to have been garrisoned in the years AD 80-110.

Regarding cavalry soldiers, their presence was already known or suspected for Dormagen, Neuss, Moers-Asberg, Altkalkar, Herwen-Bijlandse Waard, Maurik, Bunnik-Vechten, Leiden-Roomburg and Valkenburg-fort (see table 14). For some of these sites, graffiti with military indications corroborate the knowledge collected so far. In the case of Valkenburg-fort the details about cavalry present at the site are derived from informative texts discussed in the previous section. The graffito indicating the presence of cavalry at Maurik, broadly dated to the period AD 55-120, was probably made by a cavalryman serving in the cohors II Thracum equitata or the cohors II Hispanorum equitata. The turma abbreviation inscribed on the finds from Moers-Lauersfort may be related to the garrison of Asciburgium. Inscriptional evidence already informed us about the presence of the ala I Tungrorum Frontoniana at this site from around the middle of the 1st century until the Batavian Revolt. Since the set of decorations found

1006 A chi-square test was used to determine this, at 1 degree of freedom and a significance level of 95%.
1007 See p. 100-102.
1008 Cf. Pfahl 2012, 73.
1009 Lenz (2002, esp. 69-70, 74-76) has suggested that soldiers of the cohors VIII Breucorum were stationed here during the Claudio-Neronian period, and possibly soldiers of the cohors II Britannorum milliaria equitata during the Flavian period. These suggestions could not be confirmed by the present study.
at Lauersfort most likely dates from before that period, an association with a different unit seems more plausible. This could also be a legioinary cavalry unit.

The graffiti provide new indications for cavalry at Xanten-Vetera I and Xanten-pre-colonia, for Nijmegen-Hunerberg and Nijmegen-Kops Plateau, and for Zwammerdam. The evidence for cavalry at Vetera I is combined with a graffito naming the commanding officer, Pliny the Elder. Since we know that he commanded an auxiliary cavalry unit, the turma abbreviation is here related to auxiliary cavalry, although the inscribed phalerae and pendants were reportedly found at the predominantly legionary site of Vetera I. At the nearby site of Colonia Ulpia Traiana, not only evidence for infantry but also cavalry soldiers has been found in contexts that predate the colony. For both sites at Xanten, the respective units could however not yet be identified with certainty. Graffiti further testify to the presence of cavalry at Nijmegen-Hunerberg and the adjacent Kops Plateau, at the latter especially through turma abbreviations in graffiti dated to the years AD 1-60. Finally, at Zwammerdam the presence of cavalry is signalled by the use of turma abbreviations on a probably late 1st-century shield boss.

Indications for both infantry and cavalry are known from nine sites. For Neuss, Xanten-pre-colonia, Nijmegen-Hunerberg, Bunnik-Vechten and Heteren-Driel/Doorwerth the date of the objects could not always be securely determined. The indications from Maurik are both less certain. For the indications from Nijmegen-Kops Plateau, however, it could be ascertained that the cavalry indications predate the single infantry indication. At Valkenburg the infantry and cavalry indications are dated to the same period. This co-occurrence of both types is in line with the evidence for a mixed auxiliary unit, namely cohors III Gallorum equitata. A similar conclusion can be drawn for Zwammerdam, where both the cavalry and the infantry indications can be dated to the Flavian period. The horse gear pendant inscribed with a centuria sign found at the pre-colonia site at Xanten is perhaps best explained by the presence of legionary cavalry. Thus, legioinary cavalry can be a possible explanation for the occurrence of both types of military indications at one site, especially near known legioinary fortresses. However, for the attestations of cavalry as well as infantry at nearby Xanten-Vetera I, there is circumstantial evidence that the cavalry indication refers to auxiliary forces. This would strengthen the assumption that legioinary and auxiliary forces encamped together at early Augustan legioinary sites, and perhaps also shortly after. In other cases a co-occurrence can better be explained by succession of units or detachments.

Specific ranks

A minority of the graffiti conveys a rank title or indication. Most of these ranks are rather generic, such as a bucinator (‘trumpeter’) or adiutor (‘assistant’), but some give more insight into the nature of the troops present at the sites in question. In three graffiti, two from Neuss and one from Woerden, the rank title is accompanied by a unit name. For the praefectus equitum attested at Xanten-Vetera I, the name of the unit is not known, but since this commander is named as Pliny the Elder, it must refer to an ala.

Graffiti with more generic rank titles refer to so-called non-commissioned officers serving in legioinary as well as auxiliary units, infantry as well as

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1010 As the Claudio-Neronian garrison of the later colony site, Lenz (2002, 73-74) suggested the ala Vocontiorum. His hypothesis could, however, not yet be convincingly proven.
1011 See below, under the heading ‘Specific ranks’.
1012 See n. 402.
1013 These ranks are included, when possible, in the columns infantry and cavalry of table 14.
cavalry. An optio attested at Utrecht was the assistant of a centurio or a decurio. One or more adiutores might have been present at Nijmegen-Hunerberg; they were tasked with various administrative duties. A Flavian beneficiarius from Zwammerdam is best regarded as a lower officer connected to an infantry or a cavalry unit, not as a member of a better-known group of detached soldiers with special policing tasks. Bucinatores, attested at Bunnik-Vechten and Alphen aan den Rijn, and possible cornicines or cornicularii, suggested for Zwammerdam and Velsen 1, were all trumpeters and can be associated with legionary or auxiliary, infantry or cavalry units.\footnote{1014} As ensigns can be classified a signifer and a possible imaginifer from Zwammerdam, but without certainty with which type of unit they served.\footnote{1015} This is different for a possible aquilifer from Nijmegen-Hunerberg and a vexillarius from Moers-Asberg. The aquilifer appears to have been exclusively associated with legionary forces, carrying the legionary eagle. For the vexillarius from Moers-Asberg, the situation is more subtle. Given the circumstances, it is the most likely option that the graffito in question refers to the bearer of the vexillum of a cavalry unit, probably either the ala Tungrorum Frontoniana or the ala Moesica.

Finally, in various graffiti found at Nijmegen-Kops Plateau, Nijmegen-Hunerberg and Valkenburg-fort the abbreviation of eques, i.e. horseman, can be read. This term conveys a general association with cavalry, legionary or auxiliary. The eques graffito from Nijmegen-Hunerberg most probably refers to a Flavian legionary cavalryman. The simple wording of the graffito mentioning an eques from Nijmegen-Kops Plateau may suggest that there were infantry as well as cavalry soldiers present there. For Valkenburg-fort, the graffito in question adds to the evidence for cavalry already during the Claudio-Neronian period.

\subsection*{5.3.b Personal names}

\textit{Citizens and non-citizens, legionary and auxiliary soldiers}

It has already been explained in the introduction to this chapter that duo and tria nomina signal the presence of Roman citizens, yet not exclusively. The presence of men bearing duo or tria nomina is expected at legionary fortresses, such as Bonn, Xanten-Vetera I and Nijmegen. However, the names are also encountered on other sites (table 14, last column). In fact, at almost all of the military sites along the Lower Rhine where 1st-century graffiti have been found, duo or tria nomina occur. If we exclude the ancillary sites of Moers-Lauersfort, Nijmegen-Museum Kamstraat, Valkenburg-Marktveld and Valkenburg-Veldzicht plus the two findspots Herwen-Bijlandse Waard and Maurik where the remains of actual fortifications have not (yet) been found, only five military sites lack such graffiti that suggest the presence of Roman citizens. But since these five sites, with the cautious exclusion of Utrecht-Domplein, have yielded only very small numbers of graffiti, this absence must not be given too much weight. To complete the picture, a considerable number of the river finds, especially the helmets, show duo and tria nomina in the applied graffiti as well.

The graffiti with duo and tria nomina are mostly found on the earlier pieces, as stated in the introduction. This trend is especially notable for Remagen, Moers-Asberg, Bunnik-Vechten and Velsen.\footnote{1016} As duo and tria nomina are not only perceived on material from legionary sites, such as Neuss and Xanten-Vetera I, the graffiti appear to support the idea that in the Augustan period legionary and
auxiliary soldiers garrisoned the military installations together.\textsuperscript{1017} However, it must be noted that most of the auxiliary forts in the western part of the Rhine delta were founded considerably later than the installations in the eastern part. This chronological distinction is important to keep in mind.

Going by the combination of names featured in the graffiti there emerges a diverse picture. On the one hand, the attested duo and tria nomina mirror the presence of apparent citizens at more sites than only the explicit legionary ones. Unless they refer to officers in command of auxiliary units,\textsuperscript{1018} they might well belong to auxiliary soldiers serving in so-called ‘citizen’ units, such as the cohors \textit{XV Voluntariorum civium Romanorum}, the cohors \textit{VI Ingenuorum civium Romanorum}, the cohors \textit{I civium Romanorum}, the cohors \textit{II civium Romanorum} and probably also the cohors \textit{I Classica}, which are all assumed to have been stationed in Germania inferior.\textsuperscript{1019} Alternatively, there are indications that new recruits for the auxilia took on the tripartite name in advance on enlistment. On the other hand, the single names attested amply at legionary sites may suggest that also legionary soldiers used only a single name to mark their belongings.

\textit{Geographical indications}

The largest group of names are Italic in origin (table 15). For convenience’s sake they are listed under the heading of ‘Italy’, but it must be noted that they may have been borne by men from not only Italy, but also the early incorporated regions bordering the Mediterranean Sea outside of Italy.\textsuperscript{1020} Together they point to the South. It is most likely that the men who went by these names served as legionary soldiers or perhaps as officers in auxiliary units. It is therefore not surprising that the legionary fortresses have yielded the highest numbers of names with an Italic association. Nijmegen-Kops Plateau stands out among the remaining sites, for the fort was not large enough to house a legion, but legionary soldiers will have garrisoned at least part of the fort in the pre-Flavian period. The same goes for Velsen 1 and 2. In view of the size of fortifications, the presence of legionary soldiers is less obvious in smaller forts than in larger fortresses, with only the latter offering enough space to house a legionary unit. At Bunnik-Vechten the earliest fortification may have been a large fortress, contrasting with the better-known stone castellum built there in the late 2nd century, but the actual dimensions of the earliest fortification could not yet be determined.

Names that are strongly attested on the Iberian Peninsula are remarkably well-represented, taken into account the overall high frequency of inscriptions from this part of the Empire.\textsuperscript{1021} They feature in graffiti from Neuss, Moers-Asberg and Moers-Lauersfort, Xanten-Vetera I and Xanten-pre-colonia, Herwen-Bijlandse Waard, Nijmegen-Kops Plateau and Nijmegen-Hunerberg, Amerongen-’t Spijk, Bunnik-Vechten, Woerden, Bodegraven, Alphen aan den Rijn, Valkenburg-Marktveld and finally Velsen 1. Their appearance is not limited to one period or phase within the 1st century; they relate to different troop movements. For Neuss it was already suggested that units from Spain were redeployed here shortly after AD 9 and after AD 69/70. Furthermore, it has been argued that emperor Caligula raised five alae and three cohortes on the Iberian Peninsula as part of the preparations for his German campaign.\textsuperscript{1022} Based on the known movements

\begin{table}  
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\caption{Geographical indications in the graffiti.}  
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\textbf{} & \textbf{Red} & \textbf{Flavio-Trajanic} & \textbf{black} \\
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\textbf{■} & \textbf{certain attestation} & \textbf{□} & \textbf{possible attestation} \\
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of the legionary forces stationed at Vetera I, the Spanish names recorded there can be related to the previous deployment of *legio V Alaudae* on the Iberian Peninsula. Before it was relocated to Nijmegen, *legio X Gemina* operated on the Iberian Peninsula for decades, excluding a brief stay at Carnuntum c. AD 63-68. For Bunnik-Vechten it is assumed that *cohors I Flavia Hispanorum equitata* was its garrison for some time after AD 70, but the graffiti give reason to suspect a pre-Flavian garrison with Iberian connections as well. For the other listed

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sites it is not yet possible to name the units having men with a possible Spanish background among their ranks.

A considerable amount of names have a geographical focus in other parts of the Empire. A large area is covered by the Celtic cultural region, as has already been pointed out in the introduction to this chapter. Not surprisingly, Celtic names are numerous among the graffiti. At Remagen, Cologne-Alteburg, Dormagen, Abltarkar and Leiden-Roomburg no Celtic names were recognized, but these sites yielded low numbers of graffiti anyway. The lack of Celtic names at Xanten-Vetera I, on the other hand, is striking, especially because Celtic-Gaulish names are also missing and the total number of graffiti is not so low.

Some of the Celtic names can be associated with particular units. At Moers-Asberg, the Celtic names may well belong to members of the *ala I Tungorum Frontoniana* which was stationed there in the Claudio-Neronian period. Graffiti dating to the same period and equally displaying Celtic names have been found at Valkenburg-fort. They can be connected with the *cohors III Gallorum equitata*. Other groups of Celtic name graffiti attract attention because their chronological distribution on a site seems limited. Earlier than the records from Moers-Asberg and Valkenburg are the graffiti with Celtic names identified at Nijmegen-Kops Plateau, covering a range of c. 10 BC to AD 40. As in Moers-Asberg and Valkenburg, there may be a cavalry connection, for at least one of the Celtic names is associated with a turma indication. The same goes for the material from Nijmegen-Hunerberg, with the difference that the graffiti with a Celtic signature from the Hunerberg date from the pre-Flavian as well as the Flavian period. Contrastingly, the Celtic names attested at Zwammerdam date only from the Flavian period.

A large number of these Celtic names can be divided among subgroups. Gaulish names occur at Xanten-Vetera I, Nijmegen-Kops Plateau and Nijmegen-Hunerberg, Heteren-Driel, Bunnik-Vechten, Utrecht-Domplein and Utrecht-Hoge Woerd, Valkenburg-fort and Velsen 2. An association with the Celtic areas bordering the river Danube, especially Noricum and Pannonia, may be assumed for a number of other Celtic names. They occur most notably at Nijmegen-Hunerberg and Bunnik-Vechten, where they predominantly date to the Flavian period, but they have also been identified in graffiti from Neuss, Xanten-pre-colonia, Bodegraven and Velsen 1. At Neuss, there is an additional direct association with cavalry.

Greek names are considerably less abundant. They have been recognized in graffiti from Neuss, Nijmegen-Kops Plateau and Nijmegen-Hunerberg, Bunnik-Vechten, Utrecht-Domplein and Utrecht-Hoge Woerd, Woerden and Velsen 1. The majority of these Greek name graffiti date from the pre-Flavian period. It is possible that they relate to men from the Greek East serving in the fleet, but additional indications such as the type and name of a particular ship, the use of *nauarchus* for a captain as commanding officer or *pleroma* for a ship’s crew are lacking. Fleet soldiers may certainly be expected along the Lower Rhine, but the presence of men with a Greek background at the higher grounds of Nijmegen-Kops Plateau and Nijmegen-Hunerberg are not as easily explained along these lines. This may, in theory, be explained by the enlistment of former fleet soldiers into citizen cohortes, named *cohortes classicae*, after these men had received Roman citizenship. *Cohors I classica* was stationed at Utrecht-Hoge Woerd in the Flavian period, and perhaps at Bunnik-Vechten in the Claudian or Neronian period. The Greek names attested at Neuss and at Nijmegen-Kops

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1023 Cf. e.g. *AE* 1956, 249 (Cologne): *Aemilio Sue/ni filio mil(iti) ex classe / G(ermanica) P(ideli) pl(eromatis) Euhodi n(auarchi) ci/vi Dumnonio an(norum) / […]. See also Fink 1971, 4, and Cuvigny 1996.
Plateau may well date back to the pre-Claudian period; they leave room for an association with members of the cohors I classica at an earlier station. Le Bohec suggests that the cohors I classica may have been in Germania inferior under Tiberius. However, it must not be forgotten that Greek names could also refer to slaves or freedmen, who frequently went by such names. Slaves and freedmen might have been present at military sites in the Lower Rhine region in the service of a member of the Roman army or as soldiers themselves.

Possible connections with Africa are found at Nijmegen-Hunerberg, Bunnik-Vechten and Woerden. However, this concerns only three names in total and the suggested links remain very tentative.

Names with a regional origin are also present, but not as much among the early material. A clear Germanic signature has the name Hahucus inscribed in a shield boss found at Zwanmerdam probably datable to the late 1st century AD. Two names attested at respectively Neuss and Velsen are probably also Germanic in origin; the graffiti at hand are dated to the first half of the 1st century AD. Latin names with a geographical focus in the Gallo-Germanic provinces are attested at Cologne-Alteburg, Nijmegen-Kops Plateau, Bunnik-Vechten, Utrecht-Hoge Woerd, Woerden, Zwanmerdam and Valkenburg-Veldzicht. Only the graffiti from Nijmegen-Kops Plateau can be dated to the pre-Flavian period, but the regional character of the name in question is not completely certain. In addition to these proper names, three graffiti refer to tribes living in the northwestern border region of the Empire. A graffiti from Nijmegen-Hunerberg mentions the Treveri, while two graffiti from Woerden and Valkenburg-Veldzicht appear to refer to one or more Marsaci. These three graffiti are probably Flavian. The relatively late date for most of these graffiti with local or regional names could indicate that after the Batavian Revolt men of local or regional origin were stationed on the Lower Rhine, but not necessarily as members of an auxiliary unit originally levied in their homelands. It could, however, also mean that these men acquired the habit of applying graffiti to mark their belongings relatively late.

Notably ill-represented are names that are linked with Thracia, Dacia and Britannia. Names with a Thracian signature are rare. They have so far only been recognized in Bunnik-Vechten, Utrecht-Hoge Woerd and Valkenburg-fort. None of these instances necessarily predates the Flavian period. The rarity of Thracian names is surprising in view of the attested presence of three nominally Thracian units. The scarcity of Dacian names is not surprising. This can be explained by the lack of Dacian auxiliary units raised in the 1st century AD. Names of British soldiers may hide among the large group of names with a general Celtic character, but their apparent absence could also be explained by a possibly late appearance on the Lower Rhine. Of the fifteen nominally British units listed by Ivleva two are attested in Germania inferior during the 1st century AD: the cohors II Brittonum and the cohors VI Brittonum. The former was certainly stationed in Germania inferior in AD 98 and probably already in 81-83/84. It may have been present in the Lower Rhine region in AD 70. The cohors VI Brittonum is expected to have operated along the Lower Rhine at least from about AD 89 until 152. Where the unit was stationed before AD 89 is not

1024 Le Bohec 1999, 706. The cohors I classica is assumed to have been raised under Augustus in Forum Iulii, modern-day Fréjus in southern France. The earliest epigraphic evidence relates to soldiers who mention Forum Iulii as their origo, but this consists of only two cases dated to the Julio-Claudian period. They do not rule out the possibility that fleet soldiers with an origin in the East, stationed in southern France at the time, were transferred to the cohors I classica under Augustus.

1025 See n. 441.

It is therefore likely that British men were stationed at some point during the 1st century along the Lower Rhine, but this seems to have been relatively late.

Interconnections

Among the names that feature in graffiti from the Lower Rhine region are quite a few which are attested on several sites and applied to objects that have roughly the same age. For common names, such multiple occurrences are probably just a coincidence. This goes for example for Vegetus, attested at Neuss, Nijmegen-Kops Plateau and Nijmegen-Hunerberg, for Reburrus, attested at Amerongen-t Spijik and Herwen-Bijlandse Waard, and for Paulus, attested at Xanten-pre-colonia, on brick stamps applied in the Tegularia Transrhenana and at different sites in the Nijmegen area. These names are too popular to allow for a close association through graffiti between two or more sites.

The gentilicium Cominius is also high on Mócsy’s list of popular names, but the combination of this gentilicium with one and the same praenomen in several graffiti makes it plausible that these graffiti refer to one particular individual. The combination L. Cominius has been found three times at three different sites, with the comment that in two graffiti the genitive is used but in the third the nominative. The dates of the three pottery vessels allow, in theory, for an identification with one individual. This individual could have been a legionnaire from Italy, who was first stationed at Vetera I and then at Nijmegen-Kops Plateau, or vice versa, and who perhaps subsequently got transferred to Velsen.

Considering less common cognomina, graffiti displaying these names as single names on different sites could refer to the same individual. When a cognomen is not among the 224 most common cognomina, as listed by Mócsy, then the name may be infrequent enough to consider a potential reference to the same person when it occurs on different objects with roughly the same age. This in its turn may indicate possible relations between garrisons. The Celtic name Boudus, which features in graffiti from Neuss and from Nijmegen-Hunerberg, and the possibly Germanic name Verax, which is attested at Bunnik-Vechten and Utrecht-Hoge Woerd, may signal connections between the respective sites and their garrisons. A similar suggestion could be put forward for Arruntius at Woerden and Alphen aan den Rijn, Lo(n)ginus at Herwen-Bijlandse Waard and Woerden, and Marsacus at Woerden and Valkenburg-Veldzicht.

In a few cases, names encountered in graffiti can be identified with names of individuals known from literary sources or monumental inscriptions. The best known example is C. Plinius Secundus, who is mentioned in the graffiti on a set of horse trappings found at Xanten-Vetera I. More informative are the references to a number of men identified at Nijmegen. Two of them are centuriones, Cinna and C. Aquilius Proculus, serving in two different legions. A centurio Cinna serving in legio X Gemina is known from both Carnuntum and Nijmegen, and it is very well possible that this same person moved in AD 68 from Carnuntum via Spain to Nijmegen in AD 71. A primipilaris C. Aquilius Proculus is mentioned by Tacitus as the officer who

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1028 Listed by Mócsy (1985).
1029 Mócsy 1985, 27-29. This list consists of 224 cognomina which are borne by 41% of all persons with a cognomen known from the available sources.
1030 See n. 1029.
1031 See above, n. 549.
1032 Inscription found at Carnuntum/Deutsch-Altenburg: AE 1929, 191.
reorganised the defeated Roman troops on the Insula Batavorum in AD 69.\textsuperscript{1033} Where Tacitus does not directly name Proculus’ unit, the inscribed text found at the Kops Plateau tells us that Proculus was a centurio with *legio VIII Augusta*. This legion sided with Vespasian in AD 69, after Otho’s death. At that time, it was garrisoned in Gaul, not on the Rhine. It thus seems that detachments of this legion were sent north as reinforcements. After having won the battle of Cremona in Italy, Vespasian dispatched *legio VIII Augusta* together with four other legions from Italy, plus two from Britain and one from Spain, as a major expeditionary force to suppress the Batavian Revolt in the Rhineland.\textsuperscript{1034} The find from the Kops Plateau suggests that, at least in the person of Proculus, *legio VIII Augusta* was already before AD 70 involved with the Roman military actions in the Rhineland.

There is another name which is rare but nevertheless known from inscriptions that mention military men operating in the Germanic provinces during the 1st century AD. The cognomen *Classicus* is recognized at Valkenburg-fort as the name of apparently a centurio. The graffito in question is dated to the period AD 40-47. A centurio by the name of *Classicus* is also known from a pre-Flavian inscription found in the German Brohltal.\textsuperscript{1035} This L. Iulius *Classicus* served with *legio XVI Gallica*. If these men are one and the same, which is not impossible, then detachments of *legio XVI Gallica* may have been sent to Valkenburg in the 40s AD.

The above described, possible identifications of various individuals being present at different sites along the Lower Rhine must remain hypothetical at most. It is nevertheless worthwhile to keep them in mind when considering the other archaeological sources that may indicate the identity and movements of Roman soldiers along the Lower Rhine.

\textbf{V.3.c Synthesis}

When taking stock of the 1st-century graffiti found at military sites on the Lower Rhine, some general features come to the fore. Concerning the military indications, both simple indications in the form of centuria signs and turma abbreviations as more elaborate naming of units occur. Full names of military units are sporadically encountered. Most personal names can be classified as cognomina, although some may have been used as simple nomina singularia. Parallel to developments in monumental inscriptions, it is expected that cognomina as main personal identifiers came into use about AD 50. This process seems to be reflected in the recognized combinations of duo nomina: most of them can be dated to the early 1st century, certainly those consisting of a praenomen and a gentilicium. Most cognomina in the graffiti are Latin in origin. A distinct group is constituted by Spanish names, possibly relating to influxes of soldiers originating from the Iberian Peninsula after AD 9 and AD 69/70. A small number of names have a Greek signature, allowing for a possible – but not exclusive – association with fleet personnel. Celtic names are a far larger group, with the Gaulish ones as an important component. A relatively late date goes for the small number of Germanic and Thracian names that have been recognized. This could imply that Germanic and Thracian soldiers were hardly stationed on the Lower Rhine in the 1st century. However, other sources inform us that they were indeed present at 1st-century military sites in *Germania inferior*.\textsuperscript{1036}

\begin{footnotesize}
\begin{tabular}{l}
1033 Tac. Hist. 4.15. \\
1034 Tac. Hist. 4.68. \\
1035 CIL XIII 7720. \\
1036 Germanic: e.g. riding spurs at Nijmegen-Kops Plateau; Thracian: e.g. Thracian names and origo mentioned in monumental inscriptions, such as CIL XIII 8318 (Cologne).
\end{tabular}
\end{footnotesize}
Therefore, an explanation different than stating their absence must be sought. Perhaps these people were reluctant or not able, possibly even not allowed, to scratch their name into objects to claim their ownership. They might be hidden behind the more simple lines and crosses that make up so many a graffito. These cases underline the necessity of consulting various archaeological sources and studying them in relation, as has been done in this research project.\footnote{See p. 15-17.}
VI Militaria

VI.1 Introduction

Militaria is the collective term for equipment used by the military for offensive and defensive purposes. Within the research framework the usefulness of militaria as markers for specific types of troops or origins of soldiers is limited by three main aspects. Firstly, it is difficult to distinguish between legionary and auxiliary equipment. Secondly, it is difficult to distinguish between different types of troops such as infantry, cavalry and fleet on the level of militaria. Thirdly, it is difficult to put a date on militaria, let alone a secure or even narrow date range. These three complicating aspects will be discussed briefly before the material from the research region will be reviewed.

Most parts of the offensive and defensive gear were carried by legionary and auxiliary soldiers alike. According to Michael Bishop and Jonathan Coulston, there is some truth in the assumption that legionaries and auxiliaries were differently equipped, but this differentiation is not per se easily demonstrated. Through time, the differentiation became less, and not all categories of equipment are as articulate or unambiguous. The lorica segmentata cuirass for instance has long been identified with legionary troops, but new archaeological discoveries have shown that they were also worn by auxiliary forces. However, the association of legionary soldiers with pilum and curved shield versus auxiliary soldiers with spear and flat shield may be considered as evident. The highly functional nature of these weapons makes them rather insensitive to stylistic variations and therefore difficult to date. For that reason, these weapons will only be of use for this research when a 1st century context can be assumed on account of the find context.

Even quite distinctive equipment such as horse gear or bow and arrow cannot per se be used as a definitive indicator for the presence of, respectively, an auxiliary cavalry unit or a unit of Eastern archers. Bows have long been considered as the typical equipment of (auxiliary) archers on horseback. There are however ample indications that archers were part of all types of Roman military units. Elements of longbows, especially the bone outer ends which usually stand out from the rest of the finds, may therefore have belonged to archers serving in different kinds of units.

Cavalry equipment must not automatically be equated with the presence of horsemen serving in an auxiliary ala or a cohors equitata. The equipment could also have been used by cavalrymen serving in a legion, by officers commanding an infantry unit, or by military personnel driving draft and baggage animals. This can be illustrated by the discovery of the remains of a mule together with parts of its harness, including glass beads and multiple pendants, at the battlefield of Kalkriese. Still, when a site produces considerable numbers of horse gear and their size and function make them unfit for use on draft and baggage animals,
such as saddle components or composite bridles, then it is most likely that their presence is related to the activities of cavalry on that site.\footnote{1042}

Fleet units are also not easily recognized by the military equipment left behind in the archaeological record. This is underlined by a recent study of the metal finds from the 1998 excavations of the assumed fleet station Cologne-Alteburg. It was concluded that a fundamental difference between the weapons and equipment of the land soldiers and those of the marine soldiers could not be made, based on the metal finds recovered during the excavations of 1998.\footnote{1043} The impression that soldiers of the fleet used basically the same weapons and equipment as infantry soldiers on land is corroborated by reliefs on gravestones from the late 1st and early 2nd centuries AD in memory of fleet personnel.\footnote{1044}

In general, one must be careful in using militaria to identify specific military units. Although Eckhard Deschler-Erb deemed it possible, with the necessary caution, to make a distinction between certain elements of legionary equipment, infantry equipment (legionary and auxiliary) and cavalry equipment,\footnote{1045} he made an explicit warning against using militaria as decisive evidence for the presence of certain military units.\footnote{1046} The methodology chosen in the present study, in which various archaeological categories are used in connection with each other and thus different markers are combined to identify army mobility, is in line with these reservations.

Over time, influences of conquered populations were also incorporated in the complete assemblages of weaponry that was used by the Roman army.\footnote{1047} This resulted in an amalgam, which makes it more difficult to identify militaria specifically associated with certain troops. But there are exceptions. A clear, visual example is provided by Trajan’s Column, completed in AD 113. In several scenes depicting battlefields of the Dacian Wars, warriors equipped with non-Roman weapons and armour are seen fighting on the side of the Roman troops. Recognisable are Germanic warriors armed with large clubs, and Numidian horsemen riding their horses without saddle or bridle.\footnote{1048}

Especially in the early Roman period, men from territories newly incorporated into the Roman Empire, or mercenaries from outside, may have brought their own weaponry and equipment into the Roman army, before these were more centrally supplied. Some of these exceptions have been found along the Lower Rhine, and when it is possible to date them to the 1st century, they are included in this overview. Some caution is needed: one should be aware of overinterpretation, of attributing too much meaning to certain finds, objects or observed trends. The case of the so-called ‘Celtic Renaissance’ serves as an example.\footnote{1049} For a long time it was assumed that there was a revival of Celtic cultural elements in the 2nd century AD. Pelta and trumpet designs, appearing in horse gear fittings, were seen as part of this artistic repertoire. This apparent revival led some to assume that Celtic cultural awareness was increasing, and that this movement was spreading from Britannia to the Continent. Following this line of thought, the discovery of fittings with trumpet designs have sometimes been interpreted as evidence for people coming from Britannia. On closer inspection, however, the typical Celtic style elements have also been found in Syria and Morocco, areas that lay far beyond the Celtic region. Instead

\footnotesize{1042} Cf. Bishop & Coulston 2006, 261.

\footnotesize{1043} Krämer 2015, esp. 121-122.

\footnotesize{1044} Bishop & Coulston 2006, 259.

\footnotesize{1045} Deschler-Erb 1999, 76-77, fig. 87.

\footnotesize{1046} Deschler-Erb 1999, 75, 77.


\footnotesize{1048} D’Amato & Sumner 2009, 166-169.

\footnotesize{1049} Fischer 2012, 338.
of a renaissance of Celtic awareness, this revived appearance of Celtic-style design elements was rather an artistic fashion trend, spreading itself throughout the Roman Empire. As with other expressions of fashions, these elements of design cannot be straightly traced back to one place of origin.

In some cases a 1st-century date is difficult to demonstrate with certainty. For instance, an iron spear head with an unusual asymmetrical cross-section and several silvered shield rivets excavated at Velserbroek, situated almost 3 km south of Velsen 1, are suspected to be of Germanic origin. The area of Velsen was evacuated by the Roman army by AD 47, which makes it tempting to assume an early 1st-century date for all the apparent Roman finds unearthed in the direct vicinity. However, the date of the spear head and the shield rivets could be much later than the occupation of the Roman forts at nearby Velsen in the early 1st century AD. Indisputably younger finds prove activity in the later Roman period in this region. For that reason these finds, and similar ones with an uncertain date, will not be included in this survey.

Uncommon, foreign weapons and other military equipment found in the Lower Rhine area may indicate the presence of men who had recently joined the Roman army but still carried weaponry with which they had learnt to fight during their training in their home communities. Such finds are expected to date in particular to the early 1st century AD, since a large number of men joined the auxilia of the Roman army in that period. The results of the analysis of 1st-century ‘indicative’ militaria will be discussed in this chapter. The focus will lie on the question what these militaria can tell us about the nature and mobility of the Roman troops operating in the Lower Rhine area during the 1st century AD. Attention is concentrated on the outstanding and exotic militaria. The selected objects will be discussed per category.

VI.2 Offensive weapons

The swords used by 1st-century infantry soldiers are typically double-edged and of the gladius type. Daggers (pugiones) served as complementary weapons for use in close combat. When encountered on a site, they signal the presence of infantry, be it legionary or auxiliary. Cavalrymen were as a rule equipped with the longer spatha. While on horseback they could use this sword more as a slashing weapon, whereas the gladius is supposed to have been primarily a stabbing weapon.

There are sporadic exceptions to these general types of offensive weapons. An often cited example is a curved wooden sword found at Oberaden, which has been identified as a Thracian sica. Whether it was used as training weapon for combat on the battlefield or in gladiatorial combat, the characteristics of the sword are taken as evidence for a Balkan origin for the man who brought it to Oberaden. This conclusion might be quite strong, but that does not alter the fact that such offensive weapons indicating identity and mobility are indeed

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1050 Bosman 1997, 284, 288.
1051 They could be from the 2nd or 3rd century AD. Cf. Bosman 1997, 288.
1052 Beliën (2011, 516-517) presents an overview of Roman coin finds from the region north and south of Velsen, which shows peaks of single coin finds not only in the 1st, but also in the 2nd and 3rd centuries AD. The excavation of native settlements at Schagen, c. 40 km north of Velsen, has yielded a considerable amount of 2nd-century sigillata (Erdrich 2001, 324).
1053 Cf. section IV.3, p. 57-60. See also n. 338.
1054 Saliola & Casprini 2012, esp. 35-38. It is noted that daggers were probably not used by higher officers.
1055 http://www.westfaelische-geschichte.de/med504, retrieved on 3 August 2017. See also Von Schnurbein 1979, who presents a more reserved view.
present on Roman military sites, including those along the Lower Rhine.

VI.2.a Double-edged offensive weapons

Long swords from Xanten-Alte Rhein

Dredging operations on the location of a fossil river channel around Wardt, north of modern-day Xanten, have produced three so-called long swords and one matching sword scabbard (fig. 23).\textsuperscript{1056} The latter measured over 68 cm. The blades of these swords are considerably longer and smaller than the typical gladius, which has on average a blade length between 47.6 and 55.0 cm in the 1st and 2nd centuries AD.\textsuperscript{1057} Their points are not sharp but rounded. Long swords were used as slashing weapons, making them suitable for combat on horseback.\textsuperscript{1058} Considering the similarities these swords bear to swords from the La Tène repertoire, they may be considered as indicative for the presence of cavalry of non-Italic Celtic origin. Charlotte Schreiter indirectly hints at the possible presence of Treveran horsemen.\textsuperscript{1059}

Unfortunately, the swords are difficult to date in their fragmentary state. When the date for the bulk of the material found at Xanten-Alte Rhein may be extended to these swords, they might well have ended up in the river during the Batavian Revolt.\textsuperscript{1060} Perhaps they were lost by Celtic (Gaulish?) cavalrymen fighting under the flag of the Roman army, but they could also have belonged to Gaulish men who had sided with the insurgents.

A biglobular dagger from Nijmegen-Kops Plateau

The 1986-1995 excavations on the Kops Plateau have yielded many pieces of military equipment. One of these is a dagger, which in its shape is typical for the earliest daggers used by the Roman army.\textsuperscript{1061} Characteristic is the so-called round ‘bidiscoidal’ or ‘biglobular’ hilt top (fig. 24). Where the later Roman daggers have a flattened, ‘semidisoidal’ top, these earliest daggers have a disc-shaped top, similar to the Celtiberian originals.\textsuperscript{1062} It is assumed that the Roman military came into contact with the Celtiberian daggers during the conquest of the Iberian Peninsula. By the middle of the 1st century BC, daggers had been added to the equipment of Roman infantry soldiers. During the pre-Flavian period they were in principle not used by cavalry.\textsuperscript{1063} The presence of this pre-Flavian pugio on

\textsuperscript{1056} Schalles & Schreiter 1993, 199-204, nos Mil 26, 34, 35, 36. Miks (2007, 765-766) lists only one of these, Mil 36, as no A805, type Straubing-Nydam, and tentatively dates it to the pre-Flavian period. Scabbard Mil 35 may well have belonged to blade Mil 34.
\textsuperscript{1058} Schalles & Schreiter 1993, 52; cf. Fischer 2012, 186-188.
\textsuperscript{1059} Schalles & Schreiter 1993, 52, n. 33.
\textsuperscript{1060} See n. 565.
\textsuperscript{1061} Find no 393/090.
\textsuperscript{1062} Fischer 2012, 193-196.
\textsuperscript{1063} Fischer 2012, 321-326.
the Kops Plateau may therefore be taken as an indication for the presence of legionary or auxiliary infantry at this site.\footnote{During the same excavations another pugio blade, preserved in its scabbard, was found (find no 379/129), which also shows some early features reminiscent of the Celtiberian original. This goes specifically for the disc-shaped foot of the scabbard. However, the four attached rings are indicative for Roman manufacturing. This dagger, which can be dated to the Augusto-Claudian period, does not evidence a Celtiberian connection. Cf. Kavanagh de Prado 2008, 60-65, esp. fig. 17 and 19.}

On closer inspection, the features of this dagger allow for a more precise identification of its place of production and of its date. According to Eduardo Kavanagh de Prado’s classification, the biglobular daggers are of Celtiberian manufacture.\footnote{Kavanagh de Prado 2008, esp. fig. 3.} They disappear in the Augustan period.\footnote{Kavanagh de Prado 2008, esp. fig. 13.} This data makes various scenarios possible. Firstly, the dagger could have been used by a Roman legionary or infantry soldier who had acquired the weapon on the Iberian Peninsula when he was stationed there under Augustus’ reign, perhaps partaking in the Cantabrian Wars (29-19 BC). The dagger may have been part of war booty or loot, but not necessarily. Roberto De Pablo Martínez points out that the last and hybrid generation of the Celtiberian daggers might well have been produced in fabricae of the Roman army located on the Iberian Peninsula, presumably by local craftsmen, to supply the Roman troops in need of weapons.\footnote{De Pablo Martínez 2012, 58-59, 66.} The possibility that the dagger had been manufactured on the Iberian Peninsula and was then transported all the way to the Rhine frontier, as part of bulk goods and not as a weapon carried by an individual soldier, seems not very likely. In general it is assumed that during the early Principate military units were already self-sufficient and relied upon military fabricae in their direct vicinity.\footnote{Bishop & Coulston 2006, 233-240.} For daggers and dagger scabbards it has, however, been suggested that before Nero’s reign their production was still concentrated in the hands of civilian specialists, and that it was transferred to army fabricae after the Claudian period.\footnote{Scott 1985, 175, 178-179.}

A Celtiberian connection for this dagger from the Kops Plateaus seems thus most likely, but this connection could also have taken shape differently. The second scenario presents the dagger as the personal weapon of an infantry soldier of Celtiberian origin who was recruited in the Augustan period by the Roman army and who used this weapon as part of his native martial tradition. It has been estimated that at least 7,000 auxiliary recruits had been levied in the northwestern part of the Iberian Peninsula during the Augustan period.\footnote{Roxan 1973, 67-71.} At the same time, men from other parts of the Iberian Peninsula were also enrolled into the legionary forces.\footnote{Cf. Le Roux 1982, esp. 323-326.} The infantryman who used this dagger could have belonged to one of these categories. For now, it seems impossible to definitively decide which of the two scenarios fits this find. It can, however, be concluded...
that this dagger represents a Celtiberian connection for the first phase of the Roman fortifications on the Kops Plateau.

VI.2.b Single-edged offensive weapons

A war scythe from Xanten- Vetera I

Excavated at the location of Barracks Y, near the western gate of the stone-built Neronian fortress, is a large iron blade in the shape of a curved knife or sickle with an equally curved cut-out on the inward side (fig. 25).\textsuperscript{1072} The length of the object is recorded as 45 cm, with a width of 7.5 cm. The iron blade was once fastened onto a long wooden handle with a diameter of 3 cm.\textsuperscript{1073} It is suggested that the weapon in its totality may have measured between 1.5 and 1.8 m.\textsuperscript{1074} From this reconstruction follows that the weapon must have been wielded with two hands, as a club or bludgeon. This resembles a so-called war scythe, a weapon better known from post-Roman times.

To Norbert Hanel’s knowledge, no similar weapon is attested at other Roman military sites, legionary or auxiliary. He is therefore inclined to believe that this bludgeon was used by besiegers of the fortress on the Fürstenberg, perhaps during the Batavian Revolt. The suggestion of a Celto-Germanic character may be supported by a group of curved, single-edged short swords with a tapered point. According to Hanel, they are known from inner Gaul. At the same time, curved single-edged swords are also known from the northern Germanic and Scandinavian regions.\textsuperscript{1075} However, these weapons are clearly swords, much smaller and with a different effect and use than this large sickle blade on a long stick, which must have required much force and skill to be wielded efficiently.

The construction of a large, somewhat curved blade attached to a long stick or pole resembles a group of single-edged weapons from the Lower Danube region, known as \textit{rhompias} (in Greek) or \textit{rumpiae} (in Latin). A rumpia is a so-called polearm with a straight or slightly curved blade attached to a pole. The blade is single-edged. Lengths probably varied, but the pole appears to have been as long as or shorter than the blade. The curved blade is shared by another weapon from the Danube region, the \textit{falx}. Falx literally translates as sickle, and this indicates the difference between a rumpia and a falx: the falx is supposed to be much more curved than the rumpia.\textsuperscript{1076} Whereas the falx is considered to be the archetypical Dacian weapon, the rumpia appears to be a typical Thracian weapon. However, the presence of a blade similar to the one from Vetera I in the collection of the National Museum of Transylvanian History in Cluj-Napoca (Romania) suggests that the weapon might have been more widely used.\textsuperscript{1077} An association with the Danube region, possibly stretching into the Balkans, seems reasonable to assume for the item discovered within the legionary fort on the Fürstenberg. Given the

\textsuperscript{1072} Hanel 1995, I 53, II 76, B 845, pl. 50.
\textsuperscript{1073} Hanel 1995, II 76.
\textsuperscript{1074} Hanel 1995, I 53.
\textsuperscript{1075} Hanel 1995, 53, esp. n. 298. See also the discussion of a single-edged sword found at Woerden below.
\textsuperscript{1076} Cf. Rustoiu 2007.
\textsuperscript{1077} Borangic & Bădescu 2014, 99. The object in question is apparently described as a billhook, but it can be questioned whether the blade was curved enough to function as such.
nature of the weapon, it can be assigned to an infantry soldier, who might well have had a Thracian background.

**A single-edged sword at Woerden**

In 2003 an extraordinary type of sword came to light in Woerden.\(^{1078}\) The sword was found in two pieces in the removed topsoil. Although rather badly preserved, the hilt of the sword is complete (14 cm long, 7.6 cm wide) and shows a pronounced grip and five bronze studs or rivet blocks across the length of the hilt (fig. 26). The hilt is slightly curved with regard to the axis of the blade. The preserved part of the scabbard is made of iron. Its upper part is fitted with ribbed plates of cast brass. On one side an X has been incised across the fitting. The other side has a fitting fixed to it, lengthwise, probably to attach the sword to a belt. Due to its bad state of preservation it is uncertain whether it served as a double-edged or single-edged sword. In its entirety the sword may have been 50-60 cm long.

The sword is clearly not a regular Roman gladius or spatha. Initially it was thought the sword might be related to the curved Celtiberian *falcata*. However, by the time the Romans built the fort at Woerden, the falcata had already been out of use on the Iberian Peninsula for about a century. Also, the shape of the hilt does not comply with the typical *falcata* hilt known from the Peninsula, and the blade is not curved enough to fit the falcata standard. Therefore it was concluded that the sword was not a true Celtiberian falcata. Then, a very different identification was suggested: the sword found at Woerden looked very similar to a type of sword known from the Baltic region and the Scandinavian coastal region.\(^{1079}\)

This non-Roman sword type features in Wolfgang Adler’s study on Germanic weaponry. It is catalogued as a single-edged sword type SIa.\(^{1080}\) With this type of sword the hilt encloses the hand, albeit with an aperture on the blade-side. Multiple rivets hold the casing of the hilt, at the same time decorating its surface. Adler lists three swords of this type discovered within his research area, the Lower Elbe region in the north of Germania magna. They are dated between c. 30 BC and AD 20.\(^{1081}\) According to Piotr Łuczkiewicz, the origin of single-edged swords is to be sought in the North Polish region.\(^{1082}\) The sword from Woerden corresponds with type W.III in Łuczkiewicz’ typology. These kind of swords ‘mit vollem Griff’ occur more often in the south of Sweden and within the territory of the Przeworsk culture, also known as the *Oder-Warthe Gruppe*, which had its heartland in what is now Central and South Poland. The type W.III swords appear, however, to have been especially popular with the Oksywie group.

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1078 Hazenberg & Vos 2009.  
1079 Hazenberg and Vos (2009, 221) end their preliminary article on the Woerden sword with this suggestion.  
1080 Adler 1993, 69.  
1082 Łuczkiewicz 2015, 180.
located in North Poland. It thus seems that single-edged swords, the subtype with
the full hilt in particular, originated among the eastern Germanic tribes.

In conclusion, it can be stated that the sword from Woerden presents a link with
northeastern Germania or southern Scandinavia. It might have been used as a
weapon by a Germanic or Scandinavian man in Roman service. Although
Germanic veterans of the Roman army have not yet been definitively identified
in the archaeological record of southern Scandinavia, there are indications
pointing in that direction. For Germanic groups living in what is now Central
Germany, it is evidenced by literary as well as archaeological sources that they
were serving in the Roman army already in the late Republican and Augustan
periods. The literary sources mention Frisian men participating in Drusus’
naval expedition along the North Sea coast in 12 BC, Chauci contributing a
contingent to Germanicus’ campaigns of AD 15 and 16, and Germani from the
left bank of the Rhine joining Germanicus’ forces in AD 15. Considering that
the Chauci inhabited at that time the region between the rivers Ems and Elbe,
stretching out to the coastline in the north, it is possible that the extraordinary
sword of Woerden was once used by one of these North Germanic men taking
part in Germanicus’ expedition. This would then, however, all have taken place
before the foundation of the fort at Woerden, which is supposed to be around AD
40.

VI.2.c Trilobate arrowheads

Thomas Fischer is resolute about the association of these arrowheads with three
blades instead of the more common two. He states that trilobate arrowheads
made of iron are beyond doubt of Eastern origin. When encountered in the
northern part of the Empire, they are regarded as so-called Leitfossilien
for the presence of oriental archers serving as auxiliary forces with the Roman
army. They have been in long use, from the Augustan period until late Antiquity,
without much fundamental change in their appearance.

Trilobate arrowheads are found regularly in all the Roman frontier provinces.
Finds of these trilobate arrowheads concentrate in the border provinces
Britannia, Raetia and the Germaniae. Auxiliary archers in general were
deployed along all border sections of the Empire, as an integral part of the
frontier armies. Conspicuous concentrations of archery units seem to correspond
with areas where the Roman military faced enemies who fought predominantly
on horseback or by bow and arrow, and sometimes both.

This type of arrowhead is not known as part of the native weaponry range of
the Germanic and Celtic tribes which provided so many auxiliary recruits. For
the Iberian Peninsula Quesada Sanz has stressed the absence of bow and arrow
in general in the pre-Roman era, probably because this type of weaponry was
considered effeminate and cowardly and therefore unworthy of native aristocratic

1083 The possibility that the sword was lost by one of the Chaucian ‘pirates’ raiding the Lower
Rhine region in the late 40s seems less probable because of the difference in chronology. However,
this scenario cannot be fully excluded, because it is very well possible that the chronology of this
sword type should be extended somewhat further.
1085 Alföldy 1968, 78-79; Schierl 2013, 91, n. 73.
1087 Cf. Kemmers 2008, 94, n. 7; 95, n. 17.
1090 Coulston 1985, 295.
warriors. Trilobate arrowheads made out of bronze had been in use, however, in Mesopotamia and the eastern Mediterranean since the 8th century BC. From the 6th century onwards, singular bronze arrowheads of this trilobate type occur in Central Europe. The variety made out of iron is attested from the 7th century onwards in Mesopotamia, Palestina and Asia minor. Iron trilobate arrowheads gradually replaced the bronze ones at the beginning of the Roman Imperial period. Arrows with an oriental background were already early on employed in the Roman army. This might have paved the way for the use of this type of arrow by other archers serving in the Roman army in general. For some sites in the Lower Rhine region it can be shown that an association of dreiflügelige Pfeilspitzen with specialised archers recruited in the East is very well possible, but for others the evidence is not (yet) strong enough. Relevant finds and sites will be discussed in the following sections.

Xanten-Vetera I

No less than 1,946 iron trilobate arrowheads have been found on the site of the legionary fortress on the Fürstenberg. Of all the collected arrowheads they constitute by far the largest category. They can be further divided into two groups: one has a top considerably smaller than the thorn, the other has a top as large as or slightly larger than the thorn. It is striking that almost all the arrowheads came from one part within the fortress, namely the direct surroundings of the headquarters (principia) of the Neronian fortress. Many were found in the rubble used as a foundation for the northwestern wing of the principia. An additional concentration of arrowheads was noted in rooms VI and VIII, which are thought to have served respectively as armamentarium and sacellum. The armamentarium or weapons store room was usually housed in one of the rooms of the principia, because this building was well guarded. It is very tempting to associate the arrowheads with a weapons store room, especially since other weapons have also been found in its direct vicinity, but it must be noted that beneath both rooms many pits from earlier periods were situated. The arrowheads could thus also be weapons dating from an earlier phase than the Neronian one. If, however, the concentration of arrowheads was part of the weapons stored in the armamentarium, they belonged to the garrison of the fortress rather than that they had been fired by the attacking forces during the siege of Vetera in AD 69.

Since trilobate arrowheads remained practically unchanged from the late Republic into the 3rd century and even late Antiquity, it is difficult to date them just by their outer appearance. Although the Fürstenberg has only been in use for a relatively short time, i.e. the Julio-Claudian period, it is not so straightforward to associate the arrowheads with a specific episode or occupation. They could be related to the Augustan campaigns into Germany, or perhaps they were intended as ammunition against the enemy forces during their siege of the Fürstenberg in AD 69. A comparison with other 1st-century findspots of these trilobate arrowheads could shed more light on the background of these objects. Hanel lists Oberaden, Haltern, Anreppen, Rödgen, Dangstetten, Augsburg-Oberhausen and the watchtowers along the Swiss Walensee as

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1091 Trilobate arrowheads have been found on various sites on the Iberian Peninsula, but these specimens are much older and of foreign origin. See Quesada Sanz 1989.
1092 Hopkins 2012, 29.
1093 Coulston 1985, 264.
1095 Johnson 1987, 128.
Augustan findspots of these trilobate arrowheads. Post-Augustan but still 1st-century findspots are, according to Hanel, Vindonissa, Hofheim, Neuss, Zwammerdam, Hod Hill, and Richborough.\textsuperscript{1098} Neuss and Zwammerdam fall within the confines of the research area at hand, but in both cases – i.e. a single arrowhead at Neuss\textsuperscript{1099} and a single arrowhead at Zwammerdam\textsuperscript{1100} – the finds cannot be dated securely to the 1st century AD. A trilobate arrowhead found at Kesteren-De Woerd is equally difficult to date.\textsuperscript{1101} These Rhineland finds are therefore excluded here from further discussion.

\textit{Moers-Asberg}

In great contrast to Xanten-Vetera I, only one trilobate arrowhead has been found on the site of the Roman fort at Moers-Asberg. This specimen was found in a pit within the walls of the fort; the archaeological context indicates that it was deposited in the Tiberio-Claudian period.\textsuperscript{1102} In the discussion of this arrowhead Rachel Hopkins stated that not all finds of these trilobate arrowheads along the limes in Britannia, Germania, and Raetia can be evidently linked with the \textit{sagittarii}, the specialized auxiliary archers mainly recruited in the eastern Mediterranean.\textsuperscript{1103} Still, the assumed presence of the \textit{cohors Silaucensium} at Asberg c. AD 16/17-50 allows here for a ready association with soldiers with an Eastern background, since this cohors was originally levied in and around Seleucia in Piera, a city on the Syrian coast.

\textit{Nijmegen-Hunerberg}

During the 1987-1997 excavations on the Hunerberg various arrowheads were found, varying in size and form. At least nine of these are trilobate, six of which have been recovered from features dated to the Augustan period.\textsuperscript{1104} Jan Kees Haalebos doubted whether trilobate arrowheads could be used as definitive evidence for the presence of auxiliary soldiers in the Augustan fortress on the Hunerberg.\textsuperscript{1105} The same question can be asked for the trilobate arrowheads discovered at Xanten-Vetera I.

\textit{Nijmegen-Kops Plateau}

The large-scale excavations on the Kops Plateau produced only one trilobate arrowhead.\textsuperscript{1106} Contextual information suggests a late Augustan or Tiberian date for this piece. An association with auxiliary troops seems less far-fetched for the Kops Plateau site than for the nearby Hunerberg, but it is also possible that

\begin{footnotes}
\footnote{1098} Hanel 1995, 1.50.
\footnote{1099} Lehner 1904, 382, pl. XXXIa,7; no 6030. Information about the context in which it was found is not given.
\footnote{1100} The single iron trilobate arrowhead from Zwammerdam is a stray find, but it has been listed by Haalebos (1977, 223, fig. 18, 38) under the heading of \textit{armes} from Period II or III, i.e. of Flavian date or later. It is therefore uncertain whether this arrowhead from Zwammerdam can be dated to the 1st century at all.
\footnote{1101} The arrowhead (find no 3625.1) was found in a civil settlement, and could not be closely dated. Koster & Joosten 2001, 192, fig. 7.8c.
\footnote{1102} Hopkins 2012, 30, A15.
\footnote{1103} Hopkins 2012, 29-30.
\footnote{1104} Find nos CA.1994.66.7951.mb (1), CA.1994.71.8053.m (4) and CA.1997.128.9710.m (1).
\footnote{1105} Haalebos 2002, 406, 414, fig. 9; Niemeijer 2016, 20-21, fig. 8.12-15.
\footnote{1106} Find no 292/175.
\end{footnotes}
legionary soldiers stationed on the Kops Plateau made use of these three-winged arrowheads.

V1.2.d Sling bullets

The effective use of sling bullets as weapons of war is not something easily taught. It demands much practice, which might explain why especially members of peoples and tribes famous for their hunting skills are mentioned as ‘slingers’ (funditores) in the ranks of the early Roman army. But these mentions are limited to the Republican period. In the early Imperial period no specialized, independent slinger units are attested. The finds of sling bullets, made from stone, clay or lead, evidence the use of the sling as a weapon used in battle in the Imperial period, but the men wielding this weapon could be attached to various kinds of military units. There may have been special subunits within legions or auxiliary units, but separate units of slingers appear to be absent in the 1st century AD.

Although sling bullets cannot, for now, be exclusively linked to a particular type of military force, they can in theory still be indicative for the presence of certain troops of units. Especially from the Republican era sling bullets are known that show the abbreviated names of officers, commanders or units. In most cases these texts are part of the mould in which the bullets have been cast. More rarely these inscriptions are stamped into the bullets after they had been taken out of their (plain) moulds. These stamped bullets are also the only inscribed bullets, based on the current information, that postdate the Republican era. So far the list of inscribed sling bullets from the Imperial period consists of more than 50 stamped bullets found in the county of Graubünden, Switzerland. The stamps show the abbreviated names of legio III, legio X and legio XII. Since the marks on the bullets are stamped after casting and not beforehand into the mould, the bullets are probably of a later date than the Caesarian period. They have been brought in connection with the Alpenfeldzug of 16/15 BC. These are the youngest dated inscribed sling bullets known so far. Sling bullets from the Imperial period appear to have been plain or undecorated by design, such as the sling bullets collected along the Lippe. No inscribed bullets are known from Britain, although lead sling bullets are frequently found in this part of the Empire. Fischer explains the disappearance of inscribed bullets through the lack of literacy at the side of the enemy. Sling bullets with literate messages would have not much effect on people that did not have knowledge of the Latin or Greek language. One could reply to this that the Roman artillery could then have substituted these literate bullets with bullets showing figurative designs, as known from earlier periods. However, bullets with symbols are equally

1107 Fischer 2012, 202-203.
1108 E.g. Keppie 1986, 123-125, fig. 36; Pina Polo & Zanier 2009, 582.
1109 Cf. Rageth, Zanier & Klein 2010, 255, referring to Frei-Stolba 2004, 72. There are also stamped bullets known from the site of the Battle of Munda, in southern Spain. (See Pina Polo & Zanier 2009, 582.) These bullets, showing the further unattested stamp DD, date from 45 BC. They are clearly older than the stamped bullets from Switzerland. Thus, a stamped sling bullet does not per se date from the post-Caesarian era as has been implied by Frei-Stolba (2004, 72).
1110 Rageth, Zanier & Klein 2010.
1111 Rageth, Zanier & Klein 2010, 255.
1112 This includes a hoard of 81 bullets discovered at Haltern in early 2015. Pers. comm. B. Temmnel.
1113 Pers. comm. J. Reid.
1115 See below, n. 1119.
lacking in the northern provinces. Whatever the explanation may be, there are no marked lead bullets known that can be securely dated to the 1st century AD.

Several military sites along the Lower Rhine have yielded lead sling bullets, but as a rule they are plain. A noted example is the large collection of sling bullets found at Velsen. Excavations there yielded some 520 lead sling bullets, an outstanding number.\textsuperscript{1116} It appears that none of these carries an inscription or engraving of any kind that can tell us more about the garrison of Roman Velsen. Contrastingly, the 1987-1997 excavations at Nijmegen-Hunerberg yielded only a small number of sling bullets, all stray finds. On the Fürstenberg near Xanten, no more than two sling bullets made of lead were collected during excavations. According to Hanel, it cannot be decided whether they belonged to the weapon arsenal of the defending or the attacking forces.\textsuperscript{1117} It is interesting to note that Tacitus describes how the rebellious troops commanded by Civilis in the Batavian Revolt made use of sling bullets.\textsuperscript{1118}

In more recent years a few exceptions to the rule have been uncovered. At Xanten-Vetera I, Bunnik-Vechten, Woerden and Empel lead sling bullets were found that showed some kind of inscription or decoration. The bullet from Empel, on the southern bank of the river Maas, is unique for northern Europe.\textsuperscript{1119} Although Empel is not considered to be a 1st-century military site along the Lower Rhine, it falls within the operating grounds of the Lower German army. Since this is one of the few decorated sling bullets known from northern Europe, it is included here in the present discussion. The sling bullet in question is decorated on both sides with what seems to be two different patterns (or emblems): on one side a dagger or short sword, on the other an eagle with its wings spread. No parallels could be found so far, apart from the equally figuratively decorated and moulded sling bullets from the Mediterranean that are generally dated to the pre-Roman period. The eagle emblem can be found on two sling bullets of unknown provenance but each showing Greek lettering on the opposing side.\textsuperscript{1120} They are probably of a pre-Roman, Hellenistic date. Could this bullet perhaps have been used as a weapon by one of Caesar’s soldiers in the 50s BC when they were on campaign in northern Gaul and Germany? Or was it some kind of souvenir, brought here years later? For now, the decorated sling bullet from Empel remains an enigmatic unique find.

\textit{Xanten-Vetera I}

On and around the legionary fortress on the Fürstenberg large numbers of sling bullets have been discovered, many by metal detectorists.\textsuperscript{1121} These finds have remained unpublished so far. After further enquiries it was discovered that four lead sling bullets showed text. The text consisted in all cases of the abbreviation \textit{L.V} or \textit{LV}, but two bullets carried the text in relief along the longitudinal axis,\textsuperscript{1122} whereas on the other two the letters \textit{LV} appear to have been stamped perpendicular to the longitudinal axis. Furthermore, the bullets with the letters in relief are more rounded, ‘almond-shaped’. The bullets with the carved letters are:

\textsuperscript{1116} Morel & Groenman-van Wateringe 1993, 52, 58-59, fig. 4.9; Bosman 1997, 42, 51, 58-59.
\textsuperscript{1117} Hanel 1995, I, 51, pl. 64, B 1763-1764.
\textsuperscript{1118} Tac. \textit{Hist.} V.17.
\textsuperscript{1119} The sling bullet is part of a private collection and not published in detail.
\textsuperscript{1120} The Greek texts can be read as respectively Demetriou (Darenberg & Saglio 1873, 1610) and Alexandrou (Empereur 1981, 556).
\textsuperscript{1121} Pers. comm. U. Esters. I thank M. Brüggler (LVR/Außenstelle Xanten) for making the further enquiries possible.
\textsuperscript{1122} One of these two bullets is registered by the LVR-Amt für Bodendenkmalpflege im Rheinland as NI 1970/0014-1-1-1. The other three bullets are unregistered. All four bullets are part of private collections.
elongated and less rounded, which can be classified as biconical. If the typology of Thomas Völling is followed, the two more rounded bullets would be of his type Ic, and the other bullets of type IIb. These two types are the most common of the types identified by Völling. They have been found on sites all through the Roman Empire, and they are often encountered together. Their use extends from the last two centuries BC into the 2nd century AD.\textsuperscript{1123}

It appears that the bullets belong to at least two different batches of sling bullets produced by the \textit{legio V Alaudae}. This legion garrisoned the fortress Vetera I from at least AD 10 until early AD 70.\textsuperscript{1124} It has been suggested that the legion was already at Xanten in 15 BC, when the Roman army on the Iberian Peninsula and the Iberian provinces themselves were reorganized. For this theory no secure evidence has yet been found on the Fürstenberg itself.\textsuperscript{1125} An investigation of graffiti has yielded the insight that at least some of the legion’s members stayed at Neuss in the early Tiberian period.\textsuperscript{1126} Novaesium may initially have been the location of a summer camp, with Vetera I as winter camp.\textsuperscript{1127} According to Tacitus’ writings, the Fifth Legion was at Vetera I at the time of Augustus’ death and in the winter of AD 69/70, during the Batavian Revolt.\textsuperscript{1128}

For the type I bullets a different, earlier date may be possible. Given that bullets with inscribed text in relief are so far only known from the Republican period, and that these bullets have the same almond- or ovoid shape and also carry the text along the longitudinal axis as the two from the Fürstenberg, it is tentatively suggested here that the said two bullets of Völling’s type I are earlier. It remains, however, unclear how early. It is not impossible that they are early Augustan, since the \textit{legio V Alaudae} was sent in 19 BC from the Iberian Peninsula to the Germanic territories, from where it joined the campaign against the Marcomanni in AD 6. As noted above, it has already been suggested that the legion was already present at Xanten in 15 BC. Perhaps the bullets are evidence of this early presence on the Fürstenberg.

\textit{Bunnik-Vechten}

Five inscribed sling bullets from Bunnik-Vechten were all discovered in the 2012-2013 excavations in the fort of the New Dutch Water Line built in the late 19th century. Beneath the modern fort lie the remnants of the Roman military vicus, cemeteries and probably also some (early) military structures. The same excavations have yielded 34 plain lead sling bullets.\textsuperscript{1129} The lead sling bullets have been found in re-deposited soil from the Roman military settlement.

On one side of the five almond-shaped bullets letters in relief are visible, placed along the longitudinal axis of the bullet. The letters must have been cut out in the mould. One bullet is only partially preserved, with a sharp cut through the

\textsuperscript{1123} Völling 1990, 34-35.
\textsuperscript{1124} Hanel 1995, I, 315-320; Franke 2000.
\textsuperscript{1125} Cf. Franke 2000, 40-41.
\textsuperscript{1126} See n. 503.
\textsuperscript{1127} For the suggestion of a summer and winter camp, see Hanel 1995, I, 300, n. 1916, who refers here to Tac. \textit{Ann.} I.31.1 and I.45.1.
\textsuperscript{1128} Tac. \textit{Ann.} I.45.1 (AD 14), \textit{Hist.} IV.22 (AD 69), (\textit{Hist.} IV.60 (AD 70). Interestingly, Garcia-Bellido (2004, 282) has argued that the Fifth Legion was stationed in the northeastern part of the Iberian Peninsula, together with the Second Legion, in the Claudian period, but the evidence for this hypothesis is rather thin.
\textsuperscript{1129} In total 41 lead sling bullets are recorded in the report, with three bullets showing text. Hendriksen 2017b, 116. A reinvestigation of the material resulted in 39 sling bullets of which five show text. Another part of the 19th-century Water Line fort was archaeologically investigated in the same period. Among the collected finds are three more sling bullets, which show no decoration or text. Hendriksen 2017a, 108. With thanks to P. Weterings (BAAC) for the additional information.
complete body of the bullet.\textsuperscript{1130} The second bullet seems to be not fully moulded, with the right half having a rather worn appearance.\textsuperscript{1131} The texts on these two bullets is not clear enough to be read securely, but they both seem to start with a letter l. followed by a dot. On the second bullet, there might well be a V following the dot, but the next letters or signs are too vague to be interpreted with certainty. The third bullet is the best preserved of the five (fig. 27).\textsuperscript{1132} Although the text on the bullet is worn or not sharply moulded, especially on the right half, the abbreviated text l.viii can be read. The two further bullets are much more corroded, but appear to show the same text: l.viii.\textsuperscript{1133} It is tempting, by analogy with for instance the above-mentioned finds from Switzerland, to interpret the text as a reference to a legio VIII.

This interpretation is strengthened by a sling bullet in the collection of the archaeological museum at Carnuntum. This lead sling bullet has exactly the same dimensions as the best preserved one from Vechten, with a comparable weight.\textsuperscript{1134} On one side the text l.viii is visible, more clearly than on the Vechten bullet. Unfortunately, no secure find context other than ‘Carnuntum’ is given. From literary sources it can be deduced that the legio VIII Augusta was probably in or near Carnuntum in AD 6, from where Tiberius was about to lead an army against king Marbod and the Marcomanni when the Pannonian revolt (AD 6-9) broke out.\textsuperscript{1135} But other than that, the legion was not stationed in Carnuntum.\textsuperscript{1136} Neither was the legion stationed at Vechten during the Imperial period, as far as known. An inscribed silver-plated disc from the Kops Plateau naming a centurio of the Eighth Legion may possibly indicate the presence of at least one member of this legion in the Lower Rhine region at the time of the Batavian Revolt,\textsuperscript{1137} but there are no further indications for this. The literary sources do tell us, however, that this legion was among the units who were led by Caesar into Gaul in 58 BC.\textsuperscript{1138} At that time it carried the title Gallica. Based on the writings of Caesar, the legion fought against the Nervians in the Battle on the Sabis which took place in 57 BC near modern Saulzoir in northern France.\textsuperscript{1139} Furthermore, a centurio of the Eighth Legion is named explicitly as part of the Roman forces besieging in 52 BC the oppidum of Gergovia in Central France.\textsuperscript{1140} It may be assumed that the legion operated in the region in the years between, but by absence of further explicit references this cannot be evidenced directly. In 51 BC

\textsuperscript{1130} Find no 487.
\textsuperscript{1131} Find no 142.
\textsuperscript{1132} Find no 49.
\textsuperscript{1133} Find nos 309 and 34.
\textsuperscript{1134} Inv.no 22030/88 (Archäologisches Museum Carnuntinum). Jobst 1992, 279, no 266; Beutler et al. 2017, 291, no 489. The 2017 catalogue lists only three lead sling bullets, of which the one at hand shows text.
\textsuperscript{1135} Vell. Pat. 2.110.1. See also Beutler 2017, 54 and Mosser 2017, 86.
\textsuperscript{1137} See p. 129-130.
\textsuperscript{1138} Caes. BGall. 1.10. Before that, the Eighth Legion was stationed near Aquileia together with the Seventh and the Ninth Legion.
\textsuperscript{1139} Caes. BGall. 2.23.
\textsuperscript{1140} Caes. BGall. 7.47.
the legion took part in the conquest of the Bellovaci, who lived in northern Gaul, between the rivers Seine, Somme and Oise.\textsuperscript{1141} There is no indication that the legion travelled north of that region after that.

Considering the sling bullets found at Vechten, it may well be possible that the legion took part in the campaigns against the Eburones and Menapii. The Eburones are said to have lived mainly between the Rhine and Meuse,\textsuperscript{1142} and the Menapii on both banks of the Rhine.\textsuperscript{1143} This might indicate that they inhabited lands south and north of the branch known now as the river Waal.\textsuperscript{1144} In 53 BC Caesar advanced five legions against the Menapians, who sided with the insurgent Eburones.\textsuperscript{1145} Although the Eighth is not named explicitly, it is very likely that it was one of the five commanded by Caesar into Menapian territory. In that context Caesar further writes that the territory of the Menapians bordered on that of the Eburones, and that it was protected by endless marshes and woodland.\textsuperscript{1146} This description could well fit the landscape in which Vechten was situated. It consisted of marshy flood basins and relatively high alluvial ridges, where mixed deciduous woodland could develop.\textsuperscript{1147} This combination of lower wetlands next to higher woodlands corresponds with Caesar’s description. Moreover, to the west of the area in which Vechten is located a vast peat area extends to the western coastal region of the Rhine-Meuse delta. To the east, the area is bordered by a high ice-pushed ridge which was in Caesar’s time probably largely covered with deciduous woodlands.\textsuperscript{1148} Vechten is situated on the last elevated point before the peat area.\textsuperscript{1149} Given the similarities in localisation and landscape characterisation, the Menapian territory as described by Caesar could well have extended as far as Vechten on the Lower Rhine.

Apart from this theoretical historical link, the similarity in shape and weight between the Vechten bullets and Late Republican bullets from Italy, Spain and France make it likely that the Vechten bullets are Late Republican as well. From the battlefield of Perusia in Italy one lead sling bullet is known that shows the text \textit{l.viii} retrograde. This bullet is slightly larger than the bullets from Vechten and Carnuntum, and has been dated to 41/40 BC.\textsuperscript{1150} Perhaps this is a precursor or successor of the Vechten and Carnuntum bullets, although there is no further evidence for the presence of \textit{legio VIII} at Perusia.\textsuperscript{1151} Of pivotal importance is that the text is applied in relief. There are still no indications that bullets showing text in this manner were used in battles against non-Romans on the Iberian Peninsula, in Germany or in Britannia.\textsuperscript{1152} A pre-Augustan date seems likely for the Vechten bullets if we follow the assumption that sling bullets with moulded texts are early, earlier than the Graubünden bullets which carry texts stamped after casting and which have been related to the \textit{Alpenfeldzug} of 16/15 BC.\textsuperscript{1153} It would thus seem that the Vechten bullets, irrespective of the actual text they carry, could be evidence for the presence of Caesarian troops in the Lower Rhine region in the 50s BC. This is corroborated by the high concentration of sling bullets with moulded texts from the Late Republican period, and at the same

\begin{itemize}
  \item \textsuperscript{1141} \textit{Caes. BGall.} 8.8, written by Aulus Hirtius.
  \item \textsuperscript{1142} \textit{Caes. BGall.} 5.24.
  \item \textsuperscript{1143} \textit{Caes. BGall.} 4.4.
  \item \textsuperscript{1144} Polak & Kooistra 2013, 383.
  \item \textsuperscript{1145} \textit{Caes. BGall.} 6.5-6.
  \item \textsuperscript{1146} \textit{Caes. BGall.} 6.5.
  \item \textsuperscript{1147} Polak & Kooistra 2013, 371-372.
  \item \textsuperscript{1148} Polak & Kooistra 2013, 371.
  \item \textsuperscript{1149} Polak & Kooistra 2013, 419.
  \item \textsuperscript{1150} Benedetti 2012, 78, pl. 20, no 39. Benedetti’s catalogue comprises in total 80 Roman lead sling bullets with moulded decoration.
  \item \textsuperscript{1151} Cf. Reddé 2000, 119.
  \item \textsuperscript{1152} Cf. Völling 1990, 37.
  \item \textsuperscript{1153} Cf. Rageth, Zanier & Klein 2010, 255, referring to Frei-Stolba 2004, 72. See also n. 1110.
\end{itemize}
time by a lack of sling bullets showing any text from Imperial Roman contexts in Spain, Germany and Britain. The texts they show most likely refer to the Eighth Legion. This would confirm the legion’s participation in Caesar’s campaigns in northern Gaul in the 50s. Since army camps of the Caesarian campaigns are notorious for their bad archaeological visibility, it is not surprising that indications for a Caesarian occupation phase at Vechten have not been noticed before. Thus, the Vechten bullets could be rare pieces of archaeological evidence for Roman activity in the Low Countries during the Gaulish Wars, and extend the Roman military presence at Vechten even further back in time.1154

Woerden

One recorded decorated sling bullet has been found at Woerden-Hoochwoert. The bullet from Woerden is rather slim and pointed.1155 It comes from a ditch of the Roman fort.1156 It is uncertain whether the bullet was used in the 1st century AD, but the fact that it shows text might indicate an earlier date. Remarkably, the text is engraved and not stamped, and it is positioned perpendicular to the longitudinal axis. Normally, inscribed sling bullets display text that is placed along the longitudinal axis. On the Woerden bullet, the letters LV can be read. These letters must have been etched or stamped into the lead after the bullet had been cast.

Although irregular and uncommon, these letters may be interpreted as a reference to the legio V Alaudae.1157 The markings on this bullet are unusual and rather crude, but the discovery on the Fürstenberg of two similar bullets with the same letters carved perpendicular to the longitudinal axis evidence a connection with the legio V Alaudae.1158 This legion was stationed at Vetera I between AD 14 and 70. Since the legion was disbanded in AD 70, the bullet from Woerden must be pre-Flavian in date.

VI.3 Defensive body armour

VI.3.a Germanic shield components

Various fragments of what appear to be 1st-century Germanic shields have been found in the Lower Rhine region. They stand out for their decoration, especially on the handles. Because of their relatively high number and their variety, they will be discussed per findspot in the following section.

Krefeld-Gellep

Among the metal objects recovered at Krefeld-Gellep is a very fragmentary shield handle.1159 There is enough preserved of the handle to show a decoration style that is deemed typical for the Elbgermanic cultural region. Broadly speaking, this region reaches from the mouth of the river Elbe along both sides of the river into Bohemia and Moravia. The handle from Krefeld-Gellep was

1154 Metal provenancing could offer further insight into the date of the Vechten sling bullets. This line of investigation will be explored in a separate article in preparation by the author.
1156 ‘Ditch 2’ has been associated with phase III of the fort (c. AD 70-175). Blom & Vos 2008, 41, 42-45, 245, 303.
1157 Blom & Vos 2008, 245.
1159 Weiß-König 2016, 69, 74, table 1; Fahr 2005, 128, fig. 8,8.
probably damaged and lost in battle in AD 69, during the Batavian Revolt.\textsuperscript{1160} Given the Germanic association of this piece, it may be tempting to associate this shield handle with an ally of the Batavian cause, but it is equally possible that a soldier with a Germanic background fought with the Roman army. This man appears then to be of Elbgermanic descent. Another possibility is an association with irregular levies of Upper Rhine and Neckar Suebi, as suggested by Stephan Weiß-König.\textsuperscript{1161}

\textbf{Moers-Asberg}

A seemingly complete but somewhat distorted bronze shield handle comes from the site of the Asciburgium fort.\textsuperscript{1162} On one outer end of the handle a rivet is still in place. The transition of the outer end to the central part of the handle is marked by a V-shaped decoration. This ornament, combined with the fact that the handle is not made of iron but of bronze, has led to the assumption that the handle has a Germanic signature. It is however also noted that the handle is poorly preserved, which makes it difficult to place it securely in a typology. Apart from that, the small section may plead against a Germanic association.\textsuperscript{1163} That being said, the handle shows less resemblance to more typically Roman shield handles than to the, rather diverse, known Germanic shield handles. Therefore, it may be considered as possible evidence for the presence of Germanic men in the fort at Moers-Asberg. The handle could not be securely dated, but since the fort was abandoned around AD 90, it is highly likely to be of a 1st-century date.

\textbf{Xanten-Vetera I}

On the site of the legionary fortress on the Fürstenberg, a fragment of a Germanic shield handle has been found.\textsuperscript{1164} Since the fortress was destroyed in the Batavian Revolt, the handle probably predates the Flavian period. Although the bronze piece is incomplete, the decoration of incised long lines, encircled dots and V-shaped grooves groups the handle together with the ones found at Bemmel and Xanten-Alte Rhein. The decoration is strongly reminiscent of examples discovered in the Elbgermanic region.\textsuperscript{1165} It may therefore be assumed that this shield handle had an Elbgermanic or at least a Germanic association. For this object also goes that various scenarios are possible, including one that features irregular levies of Suebi transferred to the Upper Rhine and Neckar.\textsuperscript{1166}

\textbf{Xanten-Alte Rhein}

Many Roman objects have been found during dredging activities in the area between the built-up areas of Xanten and Wardt, where once the river Rhine ran. Based on the strong military character, the chronological focus and the lack of votive indications in the assemblage, it is assumed that most of the objects ended up in the river during or shortly after the Batavian Revolt.\textsuperscript{1167} One of the recovered metal objects is a bronze shield handle of Elbgermanic type, which

\begin{itemize}
\item \textsuperscript{1160} Fahr (2005, 126) assumes a pre-Flavian date for this piece.
\item \textsuperscript{1161} Weiß-König 2016, 71-73; see below.
\item \textsuperscript{1162} Deschler-Erb 2012, 44, pl. 5, B14; Weiß-König 2016, 69, 74, table 1.
\item \textsuperscript{1163} Deschler-Erb 2012, 44.
\item \textsuperscript{1164} Schalles 2006b, 214, 216, fig. 1,9; Weiß-König 2016, 74, table 1.
\item \textsuperscript{1165} E.g. Wegewitz 1994, 160-162, fig. 206. See below, n. 1170.
\item \textsuperscript{1166} Weiß-König 2016, 71-73.
\item \textsuperscript{1167} See n. 565.
\end{itemize}
can be dated to the early Imperial period (fig. 28). This piece has already been discussed because of the graffito inscribed into it, which tells us that it once belonged to one or more infantrymen under the command of centurio Albanus. The general shape and the decoration of the handle are similar to those of a fragmented shield grip found on the nearby Fürstenberg, discussed above, and a shield grip found in a native settlement at Bemmel, located within the Batavian territory. For the decoration scheme, an interesting parallel can be found in the inventory of a grave discovered at Harsefeld in the Lower Elbe region. This grave assemblage contains a shield grip with a remarkably similar decorative pattern consisting of lines and dots. An Elbgermanic association may therefore be assumed for the handle from Xanten-Alte Rhein. Hans-Joachim Schalles suggested that these Germanic shield components referred to Germanic, perhaps especially Batavian men serving in regular auxiliary units. However, given the striking Elbgermanic parallel it is also possible, as pointed out by Weiß-König, that they are to be linked with irregular levies of Suebi from the Upper Rhine and Neckar. The tribal communities to which these men belonged had moved from the Elbgermanic region to Southern Hessia and Baden-Württemberg to resettle there under Roman supervision in the first half of the 1st century AD. Both associations, i.e. originally Elbgermanic and resettled Elbgermanic, must therefore be considered. Either way, it can be stated that the shield grip from Xanten-Alte Rhein signals the presence of a Germanic infantryman in Roman service, probably at the time of the Batavian Revolt.

Nijmegen-Hunerberg

In 2016 a fragment of bronze shield edging found among the remains of the legionary fortress on the Hunerberg was published. It is a stray find from the eastern half of the Flavio-Trajanic legionary fortress. Again it is the decoration that sets this piece of edging apart from the common Roman shield edging. The V-shaped grooves and the decoration on the rivet head preserved in one of the loops attached to the edging fit the decoration scheme known from militaria found in the Germanic, more specifically the Elbgermanic region. Because of the squared outer ends, the fragment of edging probably belonged to a rectangular or polygonal shield. The Germanic signature provided by the decoration suggests that the man who had used this shield had a Germanic background. Given the

1168 Inv.no 90,15.019 (RMX). Schalles & Schreiter 1993, 228 (Mil 83); Schalles 2006b, 214, fig. 1.4; Weiß-König 2016, 73-74, fig. 9, table 1.
1169 See n. 567.
1170 A Rollenkappenfibel dates this grave assemblage to the first half of the 1st century AD. Wegewitz 1994, 160-162, fig. 206.
1171 Schalles 2006b.
1172 Weiß-König 2016, 71-73.
1173 Weiß-König 2016, 70-72, fig. 5-7. Find no. CA.1959.? (sic).
1174 Weiß-König 2016, 71.
findspot it is likely he served with a legion, the legio X Gemina if a Flavian date is assumed. Perhaps he was a scout or a member of an added auxiliary force.

Nijmegen (river find)

From the river Waal near Nijmegen comes a bronze shield boss marked by a rib (spina) over its round domed body (fig. 29).\textsuperscript{1175} This piece has already been discussed because of the graffito it bears.\textsuperscript{1176} Such ribbed shield bosses are not typically Roman. Three bosses of this type are known from the Lower Rhine region: one was found as part of a grave assemblage in Voerde-Mehrum (near Wesel),\textsuperscript{1177} the second in the river Waal near Nijmegen and the third one, which will be discussed separately, was dredged from the river Rhine near Doorwerth.\textsuperscript{1178} The tinned shield boss from Mehrum can be dated to the middle of the 1st century AD.\textsuperscript{1179} According to Michael Gechter and Jürgen Kunow, this particular shield boss and a Germanic-style shield grip belonged to one and the same shield.\textsuperscript{1180} The Germanic connotation of the grave assemblage is strengthened by the inclusion of a drinking horn.\textsuperscript{1181} The nature of the weapons deposited in the grave points to an infantryman rather than a cavalryman. The richness of the assemblage has further led to the assumption that he was a commander rather than a common warrior. Gechter and Kunow suggested that he would have commanded a Germanic so-called *Volksaufgebot*, an irregular military unit (temporarily) associated with but not fully integrated into the

\textsuperscript{1175} Inv.no BE.XIV.10a (Museum Het Valkhof); Abeleven & Bijleveld 1902, 35, 10a; Nicolay 2007, 24, 169, table 5.3, 20.
\textsuperscript{1176} See chapter V, n. 998.
\textsuperscript{1177} Mehrum: inv.no 5592 (RLMB); see also Gechter & Kunow 1983. In the past it was assumed that the cemetery to which this grave belongs, was situated on the left bank of the river Rhine, i.e. within the Roman Empire. New insights, however, position this cemetery now on the right bank and thus strictly speaking outside the Roman Empire. Cf. Weiß-König 2016, 73 with reference to Frank 2012, 10.
\textsuperscript{1178} Doorwerth: inv.no e 1895/10.21 (RMO); see below for a detailed description.
\textsuperscript{1179} The sigillata dishes in the same grave assemblage show stamps of respectively Bassus i-Coelus (NoTS: La Graufesenque, die 5b, c. AD 50-70; inv.no 5602 (RLMB)) and Cantus (NoTS: La Graufesenque, die 6a, c. AD 25-55; inv.no 5601 (RLMB)). Cf. Gechter & Kunow 1983, 452.
\textsuperscript{1180} Gechter & Kunow 1983, 450.
\textsuperscript{1181} Gechter & Kunow 1983, 454.
Roman army. The relatively late date of the grave is not a hindrance, because they assume that these Germanic irregular units lost their importance within the Roman military scheme only after AD 70. Schalles holds a somewhat different view: he suggests that the Mehrum grave, based on the typical Germanic shield grip, belongs to a native who might have served in one of the regular and integrated cohortes Batavorum. The graffito on the shield boss from the river Waal, mentioning the Latin gentilicium Verinius and cognomen Rufus, supports the idea that Germanic type shields were indeed used by men in regular service of the Roman army. The (administrative) context of the Roman army can namely explain the use of Latin or Latinized names, in this case duo nomina to be precise, by a native soldier of Germanic background.

To the short list of three ribbed shield bosses from the Lower Rhine region, three additional pieces from other regions of the Empire can be added. One ribbed shield boss was found in Bingen in Upper Germany, as part of a grave assemblage dated to the second half of the 1st century AD, and another in Csopak-Kőkoporsódomb (on the shore of Lake Balaton) in Pannonia superior, also as part of a grave assemblage but in this case dated to the first decades of the 2nd century AD. The third ribbed shield boss was on display during a temporary exhibition at Carnuntum. It is in a private collection, and its provenance is unknown. In the exhibition catalogue its date is specified as first half of the 1st century AD. If the date ranges of the three grave assemblages are combined, it seems best to date this type of ribbed shield boss to AD 50-100. The proposed Germanic association is not contested by the additional three finds. On the contrary, the grave assemblage discovered at Csopak-Kőkoporsódomb includes a second Germanic object, namely a typically Germanic belt buckle. It may therefore be concluded that the shield boss found in the river Waal near Nijmegen and the one found in the river Rhine near Doorwerth probably once belonged to soldiers of Germanic origin who served here with the Roman army around the middle or during the second half of the 1st century AD.

**Kesteren-De Woerd**

An old find from Kesteren-De Woerd consists of a bronze shield rivet top of about 3 cm high (fig. 30). Unfortunately it lacks contextual information. The moulded shape corresponds to Norbert Zieling’s type B of his classification of Germanic shield rivets. Chronologically he places the type into the period from the Iron Age until Eggers phase B1 (c. AD 1-50). This implies a cautious maximum dating of the piece from Kesteren of c. AD 50. A Germanic association may be assumed for such profiled shield rivets. They appear to concentrate in

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1182 Gechter and Kunow (1983, 452, 455) state that the phenomenon of weapon graves, to which the grave from Mehrum belongs, cannot be associated with Roman soldiers, i.e. soldiers who had served in regular Roman army units. The mix of Germanic and Roman weaponry, the lack of typical Roman weapons such as helmets and body armour and the short timeframe of their appearance argues against an association with soldiers who had served in regular auxiliary units of the Roman army. See also Berke 2009, 315, no 138. For the different views of Volksaufgebote and their relation to the Roman army, see the section on auxiliary recruitment, esp. n. 210-212.


1185 Zieling 1989, 277-278, pl. 36.
the region of the Lower and Middle Elbe.\textsuperscript{1191} There are no other indications for men from the Elbgermanic region present at this site in the late Iron Age or early Roman period. So far, no clear distinction between shields used by Germanic men fighting on foot and those used by men on horseback could be made, certainly not by means of the preserved shield rivets.

\textit{Doorwerth (river find)}

One of the many Roman finds dredged from the river Rhine near Doorwerth is a bronze shield boss with a conspicuous rib running along its dome.\textsuperscript{1192} Nicolay has dated this piece to the 2nd or 3rd century AD, but the argument for this late date remains unclear.\textsuperscript{1193} This shield boss is of the same type as the one found near Nijmegen. As discussed above it can be dated to AD 50-100. It appears to be a Germanic type of shield boss, but it was also used in service of the Roman army, most likely by soldiers of Germanic origin. This shield boss may have ended up in the Rhine together with the bulk of the other objects dredged from the same place, which probably date from the second half of the 1st century as well.\textsuperscript{1194} It has been suggested that their deposition was related to an armed encounter during or directly after the Batavian Revolt, but a re-examination of the dates of some of the vessels in the hoard suggests a later date, well into the Flavian period. This does not rule out the possibility that the shield boss was deposited on an earlier, separate occasion. Following the suggestion of Schalles, the shield boss could thus have belonged to one of the Batavian rebels, but also to a soldier of a Germanic tribe in service of the Roman army.\textsuperscript{1195}

\textit{Woerden}

A decorated shield grip found south of the Roman fort can be classified as a Germanic shield grip, type Zieling F3.\textsuperscript{1196} Zieling dates this type to Eggers phase B1, roughly corresponding with the first half of the 1st century AD. Its distribution covers the whole of Germania magna.\textsuperscript{1197} In theory, the shield grip may have belonged to a shield used by the same soldier or warrior who had the single-edged sword also found at Woerden as his weapon, but the dating and origin of the shield grip appear less refined and secure than those of the sword. For now, it can only be concluded that the shield grip is an indicator for some Germanic presence, direct or indirect, in early Roman Woerden.

\textit{Velsen 1}

The umbo discovered in a well at Velsen 1 is considered to be a ritual deposition, probably performed during or after the destruction of the fort in the aftermath of the Frisian Revolt (AD 28).\textsuperscript{1198} The shield boss is of a Germanic type. It cannot be definitively stated whether it had belonged to the enemy, and as such perhaps

\textsuperscript{1191} Zieling 1989, 280.
\textsuperscript{1192} Inv.no e 1895/10.21 (RMO).
\textsuperscript{1193} Nicolay 2007, 24, 124, no 55.1, fig. 2.6.
\textsuperscript{1194} See p. 175-178.
\textsuperscript{1195} Schalles (2006, 215) includes the grave assemblage from Mehrum in his discussion. The shield boss in this grave assemblage is of the same type as the one from the Rhine near Doorwerth.
\textsuperscript{1196} Excavation Woerden-Groenendaal, find no 025/01642. Haalebos & Lanzing 2000, 16, fig. 11.1; Vos & Haalebos 2000, 196, 197; Weiß-König 2016, 69, fig. 2.
\textsuperscript{1197} Zieling 1989, 178-180.
\textsuperscript{1198} Bosman 1997, 57, 59, 67, fig. 5.8.2. Find no 89-2-s180-2011. It was recovered from feature 89-s481. Bosman mentions a close parallel found at Colchester.
ritually deposited as part of war booty, or to a soldier of Germanic origin in service of the Roman army and stationed at Velsen 1.

VI.3.b Polygonal shields

It seems that both legionary and auxiliary soldiers were equipped with rectangular and oval shields in the early Imperial period. It is therefore difficult to identify one or the other category of soldiers through fragments of casing of either rectangular or oval shields. This is complicated by the fact that some rectangular shields had rounded short sides, entailing that small rounded fragments of shield casing cannot be appointed per se to oval or round shields. If the original curvature of the shield can be deduced, the fragments of shield casing may hold some useful information regarding the character of the soldiers stationed there, for auxiliary shields were less curved and also smaller than legionary shields, according to Deschler-Erb. More informative and potentially indicative for the presence of specific troops are a small group of shields of different, polygonal shapes. Examples of these will be discussed in the following section.

Hexagonal shields

The hexagonal shield is considered to be a typical cavalry shield. Depictions appear in various stone reliefs, for instance on gravestones found at Cologne, Bonn and Mainz, on the triumphal arch of Orange, on the Tropaeum Traiani near Adamclisi and on Trajan’s Column in Rome. In these cases the hexagonal shields are mainly associated with barbarian warriors, the enemy, or as spoils of war. The reliefs in question date from the early 1st to the early 2nd century AD. Hexagonal shields also appear in the lesser monumental arts, as the attribute of the ‘Celtic Rider’, a bearded barbarian riding a horse whilst wielding a sword and a shield. This iconographic type is known from depictions on various types of ceramics. It probably goes back to an example in monumental art from the Hellenistic period, depicting battle scenes between Greeks and Gauls.

Apart from depictions on various objects, actual hexagonal shields have not been found. A rare exception includes the shield edging fragments found in an early Roman inhumation grave in Wachow near Brandenburg. The grave belongs to a Germanic cultural tradition. The shield edging fragments were found lying in a hexagonal outline. All the fragments are straight. Only through their original position in the grave can be concluded that they belonged to a hexagonal (or double trapezoidal) shaped shield. Consequently, other straight fragments of shield edging that have been appointed to rectangular shields might have been part of similar (multi-angular) shields. This possibility must be borne in mind.

Additionally, there are a number of miniature metal objects in the shape of hexagonal shields that attest directly to their use in late Iron Age and early Roman Europe. These miniature hexagonal shields have mainly been discovered in northeastern Gaul and southern England, but they are also reported in

1200 E.g. a fragment of round shield casing from Leiden-Roomburg, described by Van der Feijst (2015, 49-50, afs. 28, 29).
1202 Ulbert 1959, 70, n. 83.
1204 E.g. Farka 1977, no 1340, pl. 35, 70.
1205 Farka 1977, 125, referring to Bieńkowski 1928, 63-65.
1206 Zieling 1989, 356-357, 656, cat.no 770.
eastern Poland. The distribution in Gaul and Britannia corroborates a Celtic association.

A notable exception to the depiction of the hexagonal shield as the equipment of the archetypical barbaric Celtic rider equipped or the hexagonal shield as trophy or war booty can be seen in the reliefs on two Roman gravestones. One was set up for the Batavian cavalryman Imerix, who served with the *ala Hispanorum*. Depicted is a trooper on horseback who protects himself with a hexagonal shield. The other gravestone shows a trooper riding over a fallen enemy. In this case, it is the Roman cavalryman who holds a seemingly hexagonal shield, and not the barbarian under the horse’s hooves. The commemorated trooper is Dazas, son of Scenus, who served with the *cohors IV Delmatarum*. He was buried at Cherchell in northern Africa, but he probably came from the Balkans. Apparently, men serving in the Roman army could also be equipped with a hexagonal shield, at least in figurative display as in this funerary relief.

Combining the evidence from the various archaeological sources, hexagonal shields appear to have been used by mounted auxiliary soldiers with a foreign background. The Batavian Imerix, serving in a nominal Spanish cavalry unit, could have been one of them, as could be Dazas of the *cohors IV Delmatarum*. The ethnocultural background of the hexagonal shield cannot be pinpointed securely, but a Celtic association seems to be most likely. Fragments of hexagonal shields have been recognized, so far, at two sites in the Lower Rhineland.

Nijmegen-Kops Plateau

The finds from the Kops Plateau include over forty fragments of what appears to be bronze shield edgings. One fragment of bronze edging was initially recorded as a casing or cover of a small spade. Its shape is angular, with the two sides measuring 5.9 and 5.8 cm respectively. Where they join, an eyelet protrudes. Two more eyelets or loops are found on the opposite outer ends of the bronze fragment.

A parallel for such a small spade casing could not be found. There are finds recorded of fittings of large spades with rectangular blades. These were made of iron and permanently fixed onto wooden spades. Casings for pioneer’s axes (*dolabrae*) are better known, and frequently found along the Rhine frontier. These casings also have perpendicular edges, fitted with hooks to hold the case in place, but in contrast with the iron spades the dolabra casings are made of copper alloy and often decorated with pendants. They are clearly of a different design than the fragment from the Kops Plateau, for this has an angle of c. 110°. If it would have been used as a (temporary) cover for a small pointed spade, it is unclear how it would have been kept in place. Considering its dimensions, material and especially the eyelet positioned halfway, in the corner, it seems more appropriate to classify this object as a piece of shield edging. Given the 110° angle, the shield appears to have had a polygonal shape, probably

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1207 Hansen 2003, 79-80, fig. 28.2
1208 Ivosević, Croatia: *AE* 1972, 299. The gravestone is dated to the early Flavian period.
1209 *CIL* VIII 9377. See Renier 1857, pl. 305, for a drawing of the gravestone.
1210 Find no 255/099. The archaeological context could not provide a secure dating for this piece, but a pre-Flavian date may be assumed on account of the general occupation date of the site.
1211 Gaitzsch 1978, 13, 62, fig. 36; Fischer 2012, 238, fig. 366.
1212 Fischer 2012, 239, esp. fig. 368.
1213 I thank S. Weiβ-König and C. van Driel-Murray for sharing their thoughts on this.
hexagonal. Similar angular shield edging fragments are said to have been found at Aislingen, Vindonissa, Strasbourg, Hofheim and Camulodunum.\footnote{1214} Alternatively, the small fragment could also have been part of a type of shield with a basic rectangular shape but with light convex rims. This gives the shield a slightly larger surface area. The existence of this type is attested through finds from a Roman-era grave in Norway.\footnote{1215} An inhumation burial unearthed near Hunn i Østfold contained various grave goods, including a complete set of shield edging fragments. A refitting made clear that the shape of the shield was not strictly rectangular, but slightly convex. Since the fragment from the Kops Plateau is quite small, a possibly slight convex inclination might not be articulated enough to be recognized. On the other hand, the fragments from Norway are decorated with a design, including V-shaped grooves, which is typical for the Elbgermanic region.\footnote{1216} No signs of decoration have been observed on the bronze fragment from the Kops Plateau. This makes it less likely that it should be associated with the described Elbgermanic type. For now, the best candidate seems to be a polygonal, most likely hexagonal, shield.

\paragraph*{Velsen 1}

At Velsen 1 the hexagonal shield type has been identified not by fragments of the edging but by the shape of preserved leather fragments.\footnote{1217} Various fragments of leather shield covers indicate that different types of shields were used by the men stationed at Velsen 1. In the past, these shield covers have been assigned to rectangular as well as oval shields.\footnote{1218} Additionally, several pieces of bronze shield edging attest to the presence of rectangular as well as oval shield types at Velsen 2.\footnote{1219} Both the rectangular and the oval shield types are associated with legionary as well as auxiliary soldiers.\footnote{1220}

\paragraph*{Trapezoid shields}

\paragraph*{Nijmegen-Hunerberg}

During the 1987-1997 excavations an iron spindle-shaped shield boss was discovered (fig. 31).\footnote{1221} This type of boss is on its own quite rare, but even rarer are the fragments of bronze shield edging that were found with it.\footnote{1222} Their shapes suggest not a rectangular, round or oval shield, but a shield in the shape

\begin{footnotes}
\footnote{1214} Ulbert 1959, 70. From the temple site of Empel, on the south bank of the river Maas, comes a corner fragment that may have belonged to a 1st-century hexagonal shield, but since the angle is only 103°, this identification remains somewhat doubtful. In her 1994 publication, Van Driel-Murray writes that this corner fragment is similar to the hexagonal shields attributed to Celtic and some Germanic tribesmen (first half of 1st century AD), but Nicolay (2007) classifies this fragment of bronze shield edging as a piece of a rectangular legionary shield. Van Driel-Murray 1994, 99-102, fig. 8, 1 vs Nicolay 2007, 24, pl. 14.
\footnote{1215} Deschler-Erb 1992, 20.
\footnote{1216} See the section on Germanic shield components, p. 210-216.
\footnote{1217} Pers. comm. C. van Driel-Murray.
\footnote{1218} Bosman 1997, 58, 67. Find nos are not specified here.
\footnote{1219} L-shaped fragment: inv.no 5099-036; rounded fragment: inv.no 5099-037 ( Provincial Archives for Archaeological Finds Noord-Holland, depot C).
\footnote{1220} Contra Bosman (1997, 58) who writes that the oval shields are generally ascribed to auxiliary soldiers, and that therefore the discovery of fragments of oval shield covers attest to the presence of auxiliary soldiers at Velsen 1.
\footnote{1221} Find no CA.1997.6708.mc. Haalebos 2002, 405-406, 413, fig. 6-7; Niemeijer 2016, 20, 22, fig. 9.6.
\footnote{1222} Find no CA.1997.6708.mb. The bronze still held some fragments of leather and wood. Haalebos 2002, 405-406, 413, fig. 6-7; Niemeijer 2016, 20, 22, fig. 9.6.
\end{footnotes}
of a trapezium. The angle is different than that of the angular fragment from the Kops Plateau, discussed above. Moreover, the casing itself shows a row of small holes instead of a few eyelets for fastening it onto the shield. These fittings must have belonged to a rare form of trapezoidal shield, narrow at the top and wide at the bottom, and equipped with a spindle-shaped shield boss. Such shields are further only depicted in a relief from Sevilla, dated to the Republican period. As the find from Nijmegen can be dated to the earliest phase of Roman activity on the Hunerberg, i.e. 19-16/12 BC, such trapezoidal shields must have been at least an early phenomenon and perhaps also limited to certain troops or regions. The exact background of this type of shield remains unclear for now.\footnote{Fischer 2012, 174.}

It may be too opportunistic to link the early relief from Spain with army units first stationed in Spain but already in the Augustan period transferred to Nijmegen, but it could be possible.

**VI.3.c Armguard**

*Manicae* or armguards are mostly associated with legionary equipment.\footnote{Brüggler et al. 2012, 138.} To date not more than eleven other examples of these articulated armguards are known from Roman contexts.\footnote{Brüggler et al. 2012, 133.} As far as military personnel is depicted wearing these armguards, the preserved imagery shows exclusively legionary soldiers. However, five of the eleven Roman military sites where manica fragments have been found are classified as auxiliary forts, including Till-Steincheshof in the Lower Rhine area.\footnote{Brüggler et al. 2012, 133.} Moreover, it has been suggested that the manica was introduced to the Roman military repertoire by Gaulish Celts, possibly through the equipment of specific gladiators (the ‘Gallus’ type, in the early Imperial period replaced by the *murmillo*). The manica was definitely part of infantry equipment, but it remains to be seen how exclusive the association with legionary soldiers really was.

**Till-Steincheshof**

At the recently discovered Roman military site at Till-Steincheshof, between Kleve and Kalkar, a rare specimen of a *manica* or armguard was unearthed.\footnote{Brüggler et al. 2012.} It was found among the remains of a barrack of the later fort (*Kastell II*, 2.4 ha), presumably built after the Batavian Revolt.\footnote{Drechsler 2014, esp. 183.} This manica is made up of thin copper alloy plates or sheets, of which 18 are preserved. Other finds suggest that it originally consisted of 30 to 35 plates.

Based on stratigraphy and accompanying ceramic finds the manica from Steincheshof can be dated to roughly the Flavio-Hadrianic period.\footnote{Cf. Brüggler et al. 2012, 122, 139; Drechsler 2014, 176.} This piece of defensive equipment can thus be considered as evidence for the presence of infantry soldiers garrisoned at Steincheshof in the late 1st or early 2nd century AD. Combining this insight with the information from a funerary inscription found in the vicinity many years before, their unit may well have been the
cohors II civium Romanorum equitata. This unit is listed as part of the Lower German army in the diplomas of AD 80, 98, 101 and 127. Until now it was not known where along the Lower Rhine it was stationed. With the new evidence from Steincheshof, it appears that this partly mounted cohors garrisoned, at least for some time, the later fort at Till-Steincheshof. The earlier Kastell I, with 3.3 ha considerably larger than Kastell II (2.4 ha), is supposed to have been built in the (Tiberio-)Claudian period and occupied by an ala quingenaria.

If the identification with the cohors II civium Romanorum equitata holds true, it is tempting to see in the manica fragment support for the assumption that this unit was constituted from former legionaries. However, this type of defensive equipment has, as stated above, not only been found in legionary fortresses, but also in auxiliary forts. The manica fragment found at Steincheshof can therefore not be taken as definitive evidence for the theory that former legionary soldiers filled the ranks of cohortes civium Romanorum, and that they were thus stationed at Steincheshof in the late 1st or early 2nd century AD.

VI.4 Helmets

Helmets have been found at various military sites along the Lower Rhine, but the most complete and notable specimens were dredged from the (former) river beds of Waal and Rhine. Although the location where they have been found is not per definition the location where they had been deposited, the sheer weight of the metal helmets will have resulted in a limited distance of further displacement. It may therefore be assumed that for instance the helmets found at Xanten-Alte Rhein were actually deposited in the direct vicinity, and the helmets may thus be associated with men operating in the surroundings of Xanten.

In the past, Roman helmets have been classified according to various, partly incompatible typologies. One of the main classification schemes is the typology devised by Henry Russell Robinson in 1975. Since the publication of this standard work, many new discoveries were made. Furthermore, Robinson’s typology has a strong British focus. It is therefore important to acknowledge that the prevailing classification schemes may be insufficient and that a revision is needed. Thomas Fischer, for instance, has developed a new classification system based on the typology proposed by Marcus Junkelmann.

In the following discussion of helmets from the Lower Rhine region, Fischer’s new typology will be followed as much as possible. Not all helmets found in the Lower Rhine region will be discussed in detail. In most cases, they do not convey information particular or definitive enough to be useful for the research at hand. Infantry helmets, for instance, may in general be used by fleet soldiers as well. Therefore, a selection of the Roman helmets and helmet fragments that have been found in the Lower Rhine region will be discussed in the following section. Only the examples that can be dated to the 1st century AD are selected for discussion. When there is no direct relation to a military structure or event and there is no clear ethnocultural element recognizable, the finds in question

1232 Cf. Drechsler 2014, 183. See also Alföldy 1968, 52-55 on the composition of the cohortes civium Romanorum (cf. the section on auxiliary recruitment, p. 54-55).
1233 Fischer 2012, 139-140.
1234 Fischer 2012, 140, 222.
1235 See above, n. 1043-1044.
will not be further considered.\textsuperscript{1236} This goes for instance for the helmets already discussed in the chapter on graffiti.\textsuperscript{1237}

VI.4.a Infantry helmets

\textit{Krefeld-Gellep}

Two helmets of the Weisenau type are part of a small collection of militaria that are the remnants of the heavy battle that took place at Krefeld-Gellep in AD 69. One of these iron helmets had been considerably remodelled, already in Roman times (fig. 32). The cheek pieces and the neck guard had been removed, and even the cut-aways for the ears had been welded up. Above the ears, tubes for holding plumes or feathers had been fitted. The rim still held fragments of a leather band added later. The rest of the helmet bowl was covered by animal skin.\textsuperscript{1238}

These characteristics are far from normal for Roman helmets of the Weisenau type, which was for more than a century the standard helmet of both legionary and auxiliary infantry.\textsuperscript{1239} This has led to the assumption that the helmet must have belonged to one of the rebels who fought the Roman troops at Gellep in AD 69, probably a Batavian.\textsuperscript{1240} However, Fischer points out that this conclusion presupposes that Batavians were in the habit of wearing such helmets, but no proof exists.\textsuperscript{1241} Fischer puts forward the idea that the helmet may rather have been worn by a \textit{signifer}, and that the neckguard may have been cut away to ease wearing a wolf’s skin as part of the typical signifer’s equipment. The relation between Batavians and specific type of helmets will be further discussed below, under the heading of cavalry helmets with face masks.

\textit{Nijmegen-Kops Plateau}

An iron helmet of the Weisenau type has been found on the Kops Plateau.\textsuperscript{1242} An eye-catching feature is a red enamelled rivet right in the centre of the forehead. Peter Connolly considers large rivets placed in the centre of the forehead and decorated with red enamel as a typically Celtic feature, and labels a helmet discovered at Hedel decorated with such a central rivet as ‘undoubtedly of Celtic manufacture’.\textsuperscript{1243} Unfortunately, Connolly does not mention parallels from the Celtic regions. Admittedly, red enamel was much used in the Celtic world to decorate metal objects of different categories, including militaria. After the Roman conquest, this technique seems to have disappeared from continental Europe, but it was still used in England and Ireland as late as the 8th century.

\textsuperscript{1236} For more detailed information on helmets from the Lower Rhine region, several studies can be consulted: Klumbach 1974, Bongartz 2013 and Van der Heijden & Koster 2017.

\textsuperscript{1237} See p. 178-179.

\textsuperscript{1238} Reichmann 1999, 109, 111, fig. 6.

\textsuperscript{1239} Fischer 2012, 148.

\textsuperscript{1240} E.g. Van Enckevort 1997, 560-561; Reichmann 1999, 111.

\textsuperscript{1241} Fischer 2012, 148.

\textsuperscript{1242} Find no 428/123-124.

\textsuperscript{1243} Connolly 1989, 228.
AD. On account of the use of red enamel, the helmet from the Kops Plateau may well have belonged to an infantry soldier with a Celtic background.

A second infantry helmet from the Kops Plateau reminds of the remodelled helmet from Krefeld-Gellep (fig. 33). This helmet of the Weisenau type also had its cheek pieces, ear protectors and neckguard removed, as well as the brow guard and possibly the stylized eyebrows. The helmet appears to have been made inactive and then deposited together with several pottery vessels and a crucible. The pottery vessels date from the Tiberian period. It has been suggested that the helmet belonged to an auxiliary soldier stationed in the annexe in the southwestern part of the Kops Plateau. Additionally, the hypothesis is put forward that this auxiliary (infantry) soldier might have been of Batavian origin, in view of the similarities between this helmet and the one from Krefeld-Gellep. As discussed above, the helmet from Krefeld-Gellep has been linked with the rebellious party in the Batavian Revolt, but this association can be argued against. The same thus goes for the remodelled helmet from the Kops Plateau. Perhaps this helmet also once belonged to a signifer, as proposed by Fischer for the Krefeld-Gellep helmet.

Valkenburg-fort

A helmet found in the Valkenburg fort is described by Robinson, based on photographs, as a helmet of his type Imperial-Gallic E and dated to the second quarter of the 1st century AD. According to Fischer’s classification, it belongs to the Weisenau type. Combining the chronological and typological data it can be inferred that the helmet indicates the presence of infantry at Valkenburg roughly between AD 25 and 50.

The helmet was not mentioned in the excavation reports. However, the further available documentation of the excavation revealed that the helmet was found in a layer that was stratigraphically assigned to phase 1 of the fort, which can be dated to c. AD 39/40-42. More precisely, it was unearthed in the fifth contubernium of barrack number 9, resting against the inner side of a wattle-and-daub wall. A (deposition) date in AD 39/40-42 would fit the date of the helmet type assigned by Robinson, albeit at its outer end. Maarten Dolmans advocated a date around AD 25, based upon the absence of a bronze rim across the forehead and along the neckguard, the absence of a helmet handle, and the presence of a crest fitting with two apertures. A date c. AD 25 is very well possible as the date of production, but this would predate the beginning of the Valkenburg fort.

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1244  Brun & Pernot 1992, 235; Pernot 2013, [33].
1245  Find no 395/095.
1246  Van Enckevort & Willems 1994, 126-127, 129-130, fig. 2.1, 3.
1249  Inv.no h 1991/9.4078 (RMO). There is some confusion about the correct identification of this helmet and another one supposedly from Valkenburg, both handed over to the RMO in 1991. I have based my conclusions on the information provided by Dolmans and Kempkens (1995) and by H. Pauts, registrar at the museum.
1250  Robinson 1975, 53-55, pl. 113-116. Please note the deviant number ‘4068’ mentioned in the caption beneath the pictures. The helmet is not included in Klumbach’s 1974 overview of helmets from Germania inferior. See also Dolmans & Kempkens 1995, 121.
Based on the now available data, the helmet can be ascribed to a member of the **cohort III Gallorum equitata**, the unit which is assumed to have been the first garrison, who appears to have lost or maybe intentionally left his helmet in one of the contubernia of the barracks in the southwestern part of the fort.\textsuperscript{1254}

**VI.4.b Cavalry helmets**

Cavalry helmets will receive more attention here than the more general ‘infantry’ helmets because a number of them found in the Lower Rhine region are practically unique, and considered to be typical for the region. This applies in particular to a small group of cavalry helmets with face masks, also identified as cavalry sports helmets. Cavalry helmets with face masks are generally assumed to be helmets only used in parades. Research has shown that in the construction of at least some of the helmets from Nijmegen and Xanten a special metalworking technique was used in order to combine light weight with high durability. By placing layer upon layer, the metal was considerably enforced. Ballistic experiments have now shown that helmets made up from layered iron could resist strong forces. It may be assumed that the costly method that was used to construct the helmets resulted in a good protection against heavy injuries. This weakens the argument for the classification of these helmets as armour to be used in parades and exercises; instead, they were probably perfectly functional and stable for use as armour on the battlefield.\textsuperscript{1255}

Fragments of helmets with face masks have been found all over the Empire. Examples are known from regions as far apart as Germania, Mauretania, Syria and Thrace.\textsuperscript{1256} The earliest examples of Roman masked or visor helmets are known from the military camps along the Lippe. An iron face mask was discovered in the Legionslager at Haltern, rusted together with a small anvil.\textsuperscript{1257} Various theories exist about the origin of the helmets with face masks. Suggested places of origin are the East, Thrace, the Italo-Etruscan, the Italo-Roman and the Hellenistic region.\textsuperscript{1258} A definitive, clear answer has not yet been found. The specimens unearthed in the Lower Rhine region contribute to this scattered view, as will become clear in the following section.

* Cavalry helmets with textile covers from Nijmegen-Kops Plateau and Xanten-Alte Rhein

Masked helmets from the 1st century are generally divided into two types: Kalkriese and Nijmegen-Kops Plateau. Of the Kalkriese type, a dozen specimens are known, of which two completely preserved. The Nijmegen-Kops Plateau type consists of around thirty pieces, of which a third is complete.\textsuperscript{1259} The most important difference between the two types is the design of the ear protection. From the second half of the 1st century AD onwards, ear protection was integrated into the face mask of these cavalry helmets. With the earlier Kalkriese type, the ears were covered by the cheek pieces.\textsuperscript{1260} Helmets of the Nijmegen-

\textsuperscript{1254} It cannot be ruled out that auxiliary cavalry also made use of these infantry helmets as defensive weapon. Cf. Fischer 2012, 145. For the revised chronology of Valkenburg, see Glasbergen & Groenman-van Waateringe 1974.

\textsuperscript{1255} Meijers, Schalles & Willer 2007; Mitschke 2010, 102.

\textsuperscript{1256} Krier & Reinert 1993, 60, fig. 41; Franzius 1999, 118-120, fig. 2; D’Amato 2016, 3.

\textsuperscript{1257} The anvil stuck to the right cheek of the mask. The mask was still unfinished, and part of the forehead showed to be cut-off straight. In this state it had a height of about 18 cm and a width of about 15 cm. Unfortunately, the mask and the anvil were destroyed during World War II. For the original publication, see Kropatschek 1909, 351, pl. XXXIX.2. See also Garbsch 1978, O 1.

\textsuperscript{1258} Franzius 1999, 138; Fischer 2012, 222.

\textsuperscript{1259} Mitschke 2010, 100.

\textsuperscript{1260} Hanel, Peltz & Willer 2000, 264-265; Mitschke 2010, 100.
Kops Plateau type are known from as far away as Gaul and Thrace, whereas the Kalkriese type seems to be almost exclusively found along the Lower Rhine, according to Hanel and Willer. They suggest that the Kalkriese type may have been created under Roman influence in the Lower Rhine area, perhaps among the Batavians. However, because of the low number of specimens this suggestion cannot be confirmed.\footnote{Hanel & Willer 2008, 215.} Given the early date of the Kalkriese type, the concentration in the Rhineland may alternatively be explained by a concentration of the activities of the Roman army in general in this region at that time. This Roman army would have included auxiliary units of different ethno-geographical origins, including for instance cavalrmen from the Iberian Peninsula and Gaul. Perhaps the Kalkriese type masks were used by some of these men.

The division into two categories is not followed by Fischer. He divides the 1st-century masked helmets, under the general heading *Maskenhelme mit männlichen Masken ohne Haarfrisur*, into not two but five types. The first is the Kalkriese type, followed by the Vize\footnote{Fischer (2012, 223) writes the name as ‘Vice’. Here the more common spelling ‘Vize’ is preferred.} type (after the helmet from the Vize tumulus in Turkey), the Nijmegen-Kops Plateau type, the Nijmegen type (after a helmet with ornamental brow band recovered from the river Waal) and finally helmets of the type discovered at Homs (Syria) and Plovdiv (Bulgaria).\footnote{Fischer 2012, 222-224.} He explicitly distinguishes these helmets with masks from those of the same shape and appearance but without a face mask. The helmets with masks would have been used during parades, not in battle. This essential difference in use is the reason for the division of helmets (bowls) of the same form into two different categories.

In total, ten masks or masked helmets of Fischer’s *Maskenhelme mit männlichen Masken ohne Haarfrisur* have been found in or near Nijmegen.\footnote{Van Enckevort 2007, 10-12. The tenth example, from the river Waal and now in the collection of the RMO (inv.no e 1931/2.18a), is depicted and described by Van der Heijden and Koster (2017, 31).} Five of these were discovered on the Kops Plateau.\footnote{Meijers & Willer 2007b, nos 1-4, plus a mask of the Kalkriese type, discussed by Van Enckevort in the same publication (2007, 10-11).} Remarkably, all helmets found on the Kops Plateau during the 1986-1995 excavations, including the infantry helmets already discussed above,\footnote{Van Enckevort 2007, 12.} had been buried in pits. They seem to have been part of ritual depositions.\footnote{See p. 221-222.} The single mask of the Kalkriese type is an earlier find, without find context.\footnote{Van Enckevort 1997, 562.} Three of the helmets thus found stand out because of the organic cover that once adorned the bowl of the helmet.\footnote{Mitschke 2007; Mitschke 2010, 103-06.} This organic cover consisted of braided ribbons combined with circular bands around the head. The applications turned out to be made of horsehair.\footnote{Inv.no 91.21.003 (RLMB). Schalles & Schreiter 1993, 191-192 (Mil 16), fig. 29-30, pl. 28; Schalles 2007.} On account of their find contexts these helmets with remarkable organic decorations can be dated to the Claudio-Neronian period.\footnote{Van Enckevort & Willems 1994, 127-128.}

A similar organic cover was discovered on the top of a cavalry helmet found at Xanten-Alte Rhein (fig. 34). This helmet is part of the large collection of Roman objects found during dredging activities in the silted-up riverbed.\footnote{Inv.no 91.21.003 (RLMB). Schalles & Schreiter 1993, 191-192 (Mil 16), fig. 29-30, pl. 28; Schalles 2007.} Although a secure find context is lacking, the similarities with the three Kops Plateau
helmets allow the helmet to be dated to the Claudio-Neronian period. There is, however, a notable difference between this helmet and the three from the Kops Plateau: the Xanten helmet was not equipped with a face mask. Fischer therefore describes the helmets from Nijmegen-Kops Plateau and Xanten-Alte Rhein separately, because he considers the presence of a face mask as a differentiating aspect. As there are no indications that a mask could have been fixed onto the helmet bowl from Xanten, he thus classifies the helmet from Xanten-Alte Rhein as a separate variant. Since the helmet bowl shows the remnants of real horsehair on top of the bowl, it is known as the Typ Kavalleriehelm mit Echthaarfrisur, Variante Xanten. Fischer classifies the Kops Plateau helmets with face masks as Maskenhelme vom Typ Nijmegen-Kops Plateau.1273

The occurrence of these four helmets with a rare organic cover in Nijmegen and Xanten has led to the assumption that they might well have belonged to Batavian cavalrymen.1274 This is effectively based on a single passage in Tacitus’ Historiae.1275 He mentions a Batavian cavalry unit based ‘at home’ (‘erat et domi delectus eques’). The best interpretation of this phrase seems to be that Batavian cavalrymen were stationed in their own territory, at least at some point during the pre-Flavian period. The fort on the Kops Plateau is the most likely candidate for the Batavian garrison because of the considerable quantities of horse gear recovered here and of its situation near the central place of the Batavian civitas. However, Batavians are difficult to grasp in material culture, especially in a Roman military context. So far, the helmets are the only category linked with the Batavian cavalrymen. But how certain is this connection?

If the helmets with organic covers are typically Batavian, one would expect a Germanic origin, at least partly, for these types of cavalry helmets. That is to say, if one accepts the Batavi as a Germanic group of people. Strikingly, helmets in general are lacking in the Germanic archaeological record at large. Michael Paul Speidel states that little is known of early Germanic helmets.1276 In the ancient literary sources it is said that some warriors of Germanic tribes wore helmets. Thus according to Tacitus’ description of the armament of Germanic warriors in De origine et situ Germanorum only a few men wore body armour (lorica) and hardly one or two a metal helmet (cassis) or leather cap (galea).1277 In the Annales he even stated that the Germanic warrior wore neither body armour (lorica) nor helmet (galea).1278

Archaeological finds seem to corroborate this image of rarity painted in the literary sources. It appears that, except for shields, defensive weapons were not common in the northern Germanic territories. Helmets are only very sporadically found in Germania magna, as are elements of body armour. Adler records only a single specimen, a Roman helmet classified as a Guisborough type helmet, discovered in a grave at Hagenow.1279 A number of graves from the Elbgermanic

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1273 Fischer 2012, 207-208, 224.
1274 Van Enckevort & Willems 1994, 135; Mitschke 2007, 99-100. See also Hanel, Peltz & Willer 2004, 268, but then with regard to the larger group of helmets type Nijmegen-Kops Plateau (cf. n. 1273).
1275 Tac. Hist. IV.12.
1276 M.P. Speidel 2004, 162.
1277 Tac. Germ. 6.
1279 Adler 1993, 105.
region are characterized by weapons as part of the grave inventory, but Adler’s study of the phenomenon of the so-called Waffenmitgabe in especially the Lower Elbe region has shown that the weapons deposited in the graves principally consist of swords, shields, and javelins or spears.\footnote{Adler 1993, 140-148.}

The situation might be different for southern Germania. It has been noted that in several Roman-era graves from the Moselle region and in the Middle and Upper Rhine area helmets were part of the grave inventory.\footnote{Voß 2007, 60, fig. 4.} Franz-Josef Schumacher notes that in earlier, late La Tène graves from the region between Rhine and Moselle helmets are only rarely part of the grave inventory.\footnote{Schumacher 1999, 46.} Based on literary sources and imagery, he adds, one would expect to encounter helmets more often, as part of the well-attested weapon graves from this region. Schumacher suggests that the men might have worn some organic material to protect their heads from battle injuries. These will have been less durable than the metal helmets. Apparently, metal helmets were the prerogative of a small group of warriors, at least in the region and period studied by Schumacher.

Most of the helmets discovered in Roman graves in the Moselle region and in the Middle and Upper Rhine area are of the Weiler type.\footnote{One helmet from a grave discovered at Ladenburg-Erbsenweg was previously categorised as of the Weiler type (cf. Voß 2007, 60, fig. 4), but according to Bongartz (2013, no 1216) the helmet is difficult to identify. It might be an infantry helmet of the Niederbieber type, not a Weiler cavalry helmet.} Helmets of this type have also been discovered in graves in the western part of the Celtic territory, in modern-day France.\footnote{Voß 2007, 60, fig. 4.} Given the occurrences of these helmets in graves in Gaul and the total lack of helmets in the Germanic region, the graves with helmets in the Rhine area seem to belong to people of a non-Germanic origin. These people may rather have had a Gaulish or Celtic background.\footnote{Cf. Franzius 1999, 138-140, on helmets with face masks as part of the Celtic weapon tradition.}

Jean Krier and François Reinert have noted the occurrence of three graves with Weiler type helmets in the region west of the Moselle, in the territories of the Treveri and the Mediomatrici in Gallia Belgica, and two further contemporary graves containing similar helmets in Central Gaul. They also highlighted the occurrence of masked helmets in the Lower Danube region.\footnote{Krier & Reinert 1993, 60-63.} Especially one from Plovdiv (Bulgaria) shows a strong resemblance to the ones from Nijmegen. It is dated to the mid-1st century AD,\footnote{Cf. Negin 2015a, 538, 542. Fischer (2012, 224) dates the Plovdiv helmet to the first quarter of the 1st century AD, probably on the basis of its resemblance to the better-dated helmet of Homs.} but an earlier, Augusto-Tiberian date must certainly not be excluded. According to Krier and Reinert, the graves with helmets discovered in North and Central Gaul might well belong to Gaulish cavalrymen who had served with Gaulish cavalry units in Thrace in the early 1st century AD. This reconstruction is based on literary and epigraphical sources telling us that a contingent of auxiliary forces was sent from the Rhine frontier to Thrace as a response to the regional uprisings in AD 21 and 26.\footnote{Krier and Reinert (1993, 63) refer to Tacitus’ texts, but they do not include a precise annotation.} Multiple Gaulish cavalry units appear to have been part of these relocated forces.\footnote{The ala Antiana, ala Capitoniana, ala Classiana and ala Pansiana are named by Krier and Reinert. Wagner (1963) is the primary source for this reconstruction, but he only mentions the ala Pansiana and ala Capitoniana by name. Wagner 1963, esp. 323-324.} The Gaulish cavalrymen would have got acquainted with the masked cavalry helmets in Thrace or through fellow cavalrymen with a Thracian background, with whom
they afterwards joined forces in the Rhineland, especially in the composite *ala Gallorum et Thracum Classiana*.\textsuperscript{1290}

Masked helmets worn by cavalry soldiers are also known from burial contexts elsewhere in the Empire. Not too far away such a helmet mask was discovered near Hellange in the Treveran territory, in modern-day Luxemburg.\textsuperscript{1291} It is assumed that the person buried at Hellange had served as an auxiliary cavalry soldier in the Roman army in the Augusto-Tiberian period.\textsuperscript{1292} Regarding the location of his burial site, far in the hinterland, he probably retired in Treveran territory. It is very likely that he originated from this region, and that he chose to return home after service.

The same scenario may be suggested for a man buried at Homs, Syria. In his grave, dated to the Julio-Claudian era, a unique masked helmet was discovered in the early 20th century.\textsuperscript{1293} The helmet shows some Eastern characteristics, in particular the diadem with a centrally positioned decorative roundel (fig. 35). But what makes this helmet especially interesting, is that the top was probably also decorated with real hair tresses, similar to the ones from Nijmegen and Xanten. It has been noted that there were remnants of textile on the top of the helmet. It is possible that this was the basis of a covering of real hair similar to the above-mentioned helmets.\textsuperscript{1294} The helmet from Homs, classified as a separate subtype by Fischer, is closely related to the Nijmegen-Kops Plateau helmets.\textsuperscript{1295} A further striking resemblance can be found in the so-called tattoos under the eyes of the Homs helmet and of two of the Nijmegen helmets (fig. 36).\textsuperscript{1296} It is, however, highly unlikely that the man buried at Homs was a member of the Batavian elite. Rather, he may have been a member of the royal family that once ruled Emesa and its territory. This is suggested by the grave goods and its location near to the monumental tomb of one of Emesa’s former rulers. The burial containing the visor helmet is dated to the early 1st century AD.\textsuperscript{1297} Similar to the person buried

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1290 Cf. Krier & Reinert 1993, 63. Negin (2015a, 543) also points out that a Thracian origin has been proposed for such cavalry helmets with face-masks.
1292 Krier & Reinert 1993, 53.
1293 Seyrig 1952, esp. 210-227.
1295 Fischer (2012, 224) groups the Plovdiv helmet together with the Homs helmet. Apparently, the Plovdiv helmet also showed remnants of textile on the bowl, but these may well have been part of a cloth in which the helmet was wrapped and deposited. Mitschke 2010, 105.
1296 I.e. find nos KH.401/199 and KH.296/208. Fischer (2012, 223, fig. 326) depicts a face mask of his Kalkriese type showing a conspicuous decorative pattern of concentric circles and dots on the cheeks, beneath the eyes. The decoration is reminiscent of the drilled dots beneath the eyes of two of the Nijmegen masks as well as the Homs mask. The mask in question is of unknown provenance.
1297 Seyrig 1952; Kropp 2010, 201; Mitschke 2010, 100 (table 1, no 5), 103.
at Hellange, he might have served in an auxiliary cavalry unit of the Roman army.

Recapitulating, it is questionable whether the elaborate helmets with organic coverings from Nijmegen and Xanten are to be associated with Batavian cavalry men, especially when Germanic warriors originally were not used to wearing helmets at all. At the least it would mean that this category of helmets was a new construction, a hybrid form perhaps. They certainly indicate the presence of cavalry at the two sites, in the middle of the 1st century AD. From other sources, in particular the graffiti, it can be inferred that on the Kops Plateau and at Xanten people with Celtic and Iberian backgrounds were present, and perhaps the helmets with textile coverings belonged to them.

A cavalry helmet with imitation hairdo from Bunnik-Vechten

Similar to the helmets from Nijmegen-Kops Plateau and Xanten-Alte Rhein a coiffure or hairdo is imitated on a helmet unearthed at Bunnik-Vechten (fig. 37). It came from the fill of a silted-up channel of the river Rhine, which included thick layers of organic materials – including horse manure – interspersed with settlement refuse. The latter contained large numbers of finds, generally dating between AD 150 and 225. It is likely that the helmet was deposited in the same period. According to Kalee, the most obvious candidate to be associated with this helmet is a member of the ala I Thracum, since this unit was stationed at Fectio from about AD 124/127 onwards. It is, however, also possible that the helmet had been deposited considerably earlier. The \(^{14}C\) dates of a peat sample taken from the infill of the residual Rhine channel c. 75 m north of the stone fort show that this meander was cut off before AD 128. The residual channel seems to have silted up completely between AD 4 and 213. The process of silting-up may thus have been well underway in the early 2nd century. Apart from that, the helmet could also have been lost in the river, at any given time.

Small plaits or tresses of hair in a criss-cross pattern are visualised on the top of the Vechten helmet, but in this case the plaits have been moulded in non-ferrous metal, not in horsehair or similar organic materials. The tresses have been created out of brass inlay strips which are fitted onto the actual iron bowl. Two plume tubes were reunited with the helmet after it was restored. Diadem, ear protectors and cheek plates are now lacking. The similarity in bowl design between this helmet from Vechten and the helmets from Xanten-Alte Rhein and Nijmegen-Kops Plateau might suggest that the helmets are related in some way. Perhaps they point to a group of users with a shared background.

There are, however, considerable differences, enough to classify them as different types. Fischer described the helmets from Nijmegen-Kops Plateau and Xanten-Alte Rhein as separate types, because he considers the presence of a face...
mask as the differentiating aspect. He classified the cavalry helmet from Vechten as a cavalry helmet with a separately embossed hairdo, additionally named Variante Weyler/Koblenz-Bubenheim. This subtype of the general type Kavalleriehelm mit Haarfrisur differs from other helmets with hairdo sculpted into the casket of the helmet, because the former have a separate bowl with the decorated hairdo placed over the actual, undecorated iron bowl, whereas the latter only have a single decorated bowl.

The division of the bowl into two parts classifies the helmet as belonging to the older Weiler type. There are however other characteristics indicating that the helmet should be placed among the latest examples of this group. First of all, the elongated neck part of the Vechten helmet makes the helmet considerably taller than the preceding Weiler type. Furthermore, the Vechten helmet shows strongly stylized, small braided tresses instead of the expressive loose curls of the early cavalry helmets. It is generally assumed that the Variante Weyler/Koblenz-Bubenheim fell out of use around AD 100 and was replaced by the so-called Pseudo-Attic helmets, of which the bowl is entirely embossed in non-ferrous metal. However, the find circumstances of the Vechten helmet may point to a considerably later time of deposition, namely between AD 150 and 225. This has led Junkelmann to the conclusion that the two-shelled construction of an iron calotte covered with a decorated, separate metal calotte had not disappeared around AD 100 but continued in use for some time, parallel to Pseudo-Attic helmets such as the eponymous pieces from Guisborough and Theilenhofen.

The similarities with the helmets from Xanten-Alte Rhein and Nijmegen-Kops Plateau provide an extra argument for an earlier date for the Vechten helmet, especially the similar hairstyles, the braided strings and the geometric arrangement. It may be worthwhile to keep this possible relation in mind when considering the operations of cavalrymen in and around Xanten-Alte Rhein and Nijmegen-Kops Plateau on the one hand, and Bunnik-Vechten on the other hand. The Batavian association proposed for the helmets from Nijmegen and Xanten does not rule out other possibilities. Since the graffiti point at the presence of men from the Iberian Peninsula at all three sites, and Vechten possibly housed Spanish cavalry in the pre-Flavian and Flavian periods, a Spanish association for these helmets may be worth further investigation.

A decorated brow band of a cavalry helmet from Utrecht-Hoge Woerd

About 300 m to the southeast of the Hoge Woerd fort a predominantly pre-Flavian native settlement has been unearthed. In the bottom fill of an unlined well belonging to this settlement, a distorted but richly decorated bronze brow band of a Roman cavalry helmet was discovered. Based on stratigraphical indications, the brow band must have been deposited before AD 70. It is

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1307 Fischer 2012, 207-208, 224. See also above, n. 1273.
1308 Fischer 2012, 206-207. See also Junkelmann 2000, 90.
1309 Fischer 2012, 207.
1311 Junkelmann 2000, 90.
1312 See p. 148-152 and p. 188-190.
1313 Feature GK 06. Langeveld, Luksen-IJtsma & Weterings 2010, 45-46.
assumed that this deposition had a ritual character, possibly related to the (honourful) discharge from the army by the helmet’s owner.\(^\text{1314}\)

Since only the brow band is preserved, it is difficult to definitively classify the helmet to which type it belonged. It is beyond doubt that the helmet was richly decorated with this detached brow band. Such helmets were worn by cavalrymen, who were not necessarily higher officers.\(^\text{1315}\) The rich decoration of the helmet suggests that it was not used in battle situations, but rather during ceremonial parades and similar events.\(^\text{1316}\) Based on the find context on the one hand and the features it shares with the so-called Hallaton Helmet (c. AD 25-50)\(^\text{1317}\) on the other hand, the brow band from Hoge Woerd can be dated to the pre-Flavian period, perhaps even more closely to the second quarter of the 1st century AD.

The iconographical programme chosen as decoration of the brow band allows for an association with a specific region. Centrally placed, in the middle of the brow band is a female figure which is argued to be the personification of Mauretania, because of her hairstyle consisting of characteristic ringlets and the supposed elephant scalp she wears on the top of her head (fig. 38). This interpretation is not unanimously accepted, but has not been refuted either.\(^\text{1318}\)

If the iconographical programme of the helmet indeed entails a link with North Africa, a connection between the wearer of the helmet and North Africa may be supposed. In the archaeological report in which the brow band is discussed, the traditional basic assumption is held that in the pre-Flavian period auxiliary soldiers of local origin were stationed in the Lower Rhine region.\(^\text{1319}\) From this it is deduced that the (former) cavalry soldier who had deposited the brow band at Hoge Woerd was most likely a native who had returned to his birthplace after a short service stay in Africa. The richly decorated helmet would then perhaps have been commissioned after a successful campaign in North Africa.\(^\text{1320}\)

With respect to a connection with Germania inferior as well as Africa, there are in total no less than five mounted or partly mounted units that can be considered in this context. The most obvious are the *ala Siliana* and the *ala Afrorum*: they are attested in both provinces through inscriptions and military diplomas. The *ala Siliana* had originally been levied in Gaul,\(^\text{1321}\) but was stationed in Africa in the Julio-Claudian period. In AD 68 it fought in Italy, after which it was sent to the Lower Rhine in AD 70. The unit stayed only shortly in the province of Germania inferior, from AD 70 until probably AD 83.\(^\text{1322}\) Even more relevant seems to be the *ala Afrorum*, since it is a cavalry unit originally levied in the African region. However, there is no indication that this cavalry unit was deployed to the Rhine before AD 70.\(^\text{1323}\) This means that the unit was probably not the garrison of the Hoge Woerd fort at the time when the brow band was discarded. In addition, although epigraphical sources tell us that men from Germania inferior and neighbouring Gallia Belgica served with the *ala Afrorum*, it is unlikely that the brow band belonged to a former member of the *ala* returning home, since these

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\(^\text{1314}\) Langeveld, Luksen-IJtsma & Weterings 2010, 298-299.
\(^\text{1315}\) Langeveld, Luksen-IJtsma & Weterings 2010, 298.
\(^\text{1316}\) Negin 2015b, 42.
\(^\text{1317}\) Negin 2015b, 44.
\(^\text{1318}\) Langeveld, Luksen-IJtsma & Weterings 2010, 301-303.
\(^\text{1319}\) Cf. Alföldy 1968, 81, 136. See also chapter IV, p. 89-90.
\(^\text{1320}\) Langeveld, Luksen-IJtsma & Weterings 2010, 303-304.
\(^\text{1321}\) Holder 1980, appendix III, 221.
\(^\text{1322}\) Alföldy 1968, 32.
\(^\text{1323}\) Cf. Alföldy 1968, 10-11.
‘foreign’ recruits were all levied after AD 70.\textsuperscript{1324} There is a third unit that has not only an African connection but also a link with Utrecht-Hoge Woerd. Brick stamps of the cohors XV Voluntariorum civium Romanorum have been found at Hoge Woerd, which indicate that the unit may have been present for some time in the Flavio-Trajanic period. Two inscriptions found at Ammaedara, modern-day Haïdra in western Tunisia, attest to its presence in Africa during the Claudio-Neronian period.\textsuperscript{1325} Of course the cohors XV Voluntariorum is not a cavalry unit, but the helmet may have belonged to an officer who because of his rank may have led the troops on horseback.

When zooming in on the proposed date of the helmet and the association with Mauretania, units involved in the suppression of the four-year revolt (AD 40-44) following the violent death of Ptolemy, the last monarch of Mauretania, come to the fore. From the epigraphical sources a few of them are known. Cohors VI Delmatarum equitata and cohors VII Delmatarum equitata, both thought to have been raised by Caligula in AD 39 for his German expedition, were almost immediately afterwards displaced to Mauretania, judging by Claudian inscriptions unearthed there.\textsuperscript{1326} It is unclear where these units were stationed later on, as further securely datable inscriptions or other references are lacking.\textsuperscript{1327} It is possible that they were destroyed in action or disbanded by the end of the 1st century AD. The fact that they are both partly mounted makes them potential candidates for an association with the Hoge Woerd helmet, but their fleeting presence in Germania inferior makes it unlikely that a veteran of these units would have returned to Hoge Woerd after his discharge or that a local boy who returned home (before AD 70) would have been recruited into one of the Dalmatian units.

There is, however, another scenario possible apart from that of a complete unit moving between Hoge Woerd and Mauretania, that is when we focus on the level of the individual soldier. An individual originating from Hoge Woerd may have joined a military unit with an ethnic origin different than his own. Alternatively, an individual soldier once stationed with his non-native unit at Hoge Woerd moved back to his former station after service, but given the early date of the helmet, which coincides with the earliest phase(s) of the fort at Hoge Woerd, it is difficult to imagine this scenario.

In sum, it is most likely that an individual soldier who himself had an African background or who had been stationed in Africa brought the helmet to Hoge Woerd, either as part of his service or after discharge. In the latter case, we can imagine the soldier, who might well have been an officer given the valuable nature of the helmet, returning home and upon safe arrival ritually depositing

\begin{footnotes}
part of his helmet to thank the gods. In any case, a connection between Africa
and Hoge Woerd manifests itself through the extraordinary brow band found in a
pre-Flavian context.

A bronze face mask of a cavalry helmet from Leiden-Roomburg

A well-preserved bronze face mask of a cavalry helmet\textsuperscript{1328} was found near
the fort of Leiden-Roomburg, in the fill of a silted-up tributary of the Rhine
which was connected to the Meuse estuary by the Corbulo Canal. From the
same context came horse bones and pieces of horse gear.\textsuperscript{1329} Together with the
cavalry helmet visor, they would provide evidence for the presence of cavalry.
Unfortunately, the horse gear could not be dated. This could have served as a
check for the proposed dating of the helmet. Based on stylistic elements, it has
been dated to the early 2nd century,\textsuperscript{1330} but it could be slightly older and belong
to the Flavian period.

The Roomburg helmet can be assigned to the Silistra type, which is named after
the site of modern-day Silistra, in Bulgaria. Helmets of this type have so far only
been found in the eastern part of the Empire, especially in the Lower Danube
region. They generally date from the late 1st or early 2nd century AD.\textsuperscript{1331} The
geographical concentration makes a reasonable case for locating the origin of the
Roomburg helmet in the Lower Danube region.\textsuperscript{1332}

Especially the name-giving helmet from Silistra shows strong similarities
with the one from Leiden-Roomburg. It is well imaginable that the helmets
were acquired roughly at the same time, perhaps by men of the same unit. The
find circumstances of the Silistra helmet are unknown. The helmet itself is
stylistically dated to the end of the 1st century AD. It has been suggested that
before the arrival of legio XI Claudia in c. AD 106, members of cohors II Flavia
Brittonum equitata garrisoned the fort at Silistra.\textsuperscript{1333} However, this unit seems
to have been equitata only after AD 125. Even if we accept that the unit was
already equitata by the end of the 1st century AD, it is unlikely that the related
Roomburg helmet was brought from Moesia to Germania by a cavalryman
serving in the cohors II Flavia Brittonum, because the unit stayed in Moesia
inferior after AD 106.

In conclusion, the concentration of the Silistra type helmets on the Lower
Danube suggests that the helmets have their origin here. Perhaps the cavalryman
who left at least part of his helmet at Roomburg, in the late 1st or early 2nd
century AD, had his roots in this part of the Empire. It is assumed that the cohors
I Lucensium Hispanorum garrisoned the fort at Roomburg between AD 103 and
110.\textsuperscript{1334} The unit appears to have been in Germania inferior at least from AD
89 until 127.\textsuperscript{1335} Although the unit does not show the indication equitata in the
preserved epigraphical sources, the helmet may evidence its mixed composition.

\textsuperscript{1328} PZH 2001-500 (Provincial Archives for Archaeological Finds Zuid-Holland).
\textsuperscript{1329} Hazenberg 2000, 50.
\textsuperscript{1330} Hazenberg 2000, 51.
\textsuperscript{1331} Fischer 2012, 224-225; Junkelmann 1996, 28.
\textsuperscript{1332} Venedikov (1960) argues for a Thracian origin of Roman helmets with face masks in general.
\textsuperscript{1333} Ivleva 2012, 116-117. Ivleva does not include ‘equitata’ in the title of this unit.
\textsuperscript{1334} This assumption is based on a building inscription, CIL XIII 8823.
\textsuperscript{1335} Haalebos 2000, 49-50.
This would be in line with many of the cohortes originally raised on the Iberian Peninsula.\textsuperscript{1336}

\section*{VI.5 Belts}

\textbf{Infantry belt plates at multiple sites}

Rectangular bronze plates decorated with circular decorations in relief, patterns in niello or various scenes in relief were fitted onto the leather belt which the soldier carried around his waist. These plates are typical for the pre-Flavian military belt (\textit{cingulum}) worn by infantry soldiers.\textsuperscript{1337} As a rule belts with such plates were not worn by cavalrymen, because the plates would hinder them too much whilst riding.\textsuperscript{1338}

At various sites along the Lower Rhine such belt plates have been discovered. They indicate the presence of pre-Flavian infantry. Stefanie Hoss has listed belt components found on sites across the Empire.\textsuperscript{1339} Her catalogue includes pre-Flavian belt plates from Bonn, Neuss, Moers-Asberg, Xanten-Vetera I, Xanten-pre-colonia, Zwammerdam, Valkenburg, and Velsen.\textsuperscript{1340} To this list Alphen aan den Rijn can be added. Several decorated belt plates were discovered in soil removed from the Rhine in front of the Alphen fort.\textsuperscript{1341} They belong to a category of embossed belt plates found on many sites along the Rhine and in the south of Britain, but with a clear concentration in Germania superior.\textsuperscript{1342}

It may be thus assumed that infantry soldiers were present at the named locations in the pre-Flavian period. For the legionary sites Bonn, Neuss and Vetera I this is not much of an eye-opener. However, for Moers-Asberg, it may confirm the presence of legionary soldiers during the earliest phase or members of the \textit{cohors I Silaucensium} in the pre-Claudian period. The finds from Xanten-pre-colonia could indicate the existence of a pre-Flavian fortification on the terrain of the later colonia, garrisoned by infantrymen. A link with men stationed nearby at Vetera I must also be kept in mind. For Zwammerdam it has been suggested that members of a cohors Voluntario\textit{r}ium garrisoned the fort in the pre-Flavian period. The belt plates found there could well have belonged to them. Less is known of the unit or units that were stationed at Alphen aan den Rijn in the pre-Flavian period, but the belt plates suggest that there were at least some infantrymen present at that time. The various pre-Flavian plates discovered at Valkenburg can be attributed to the partly mounted \textit{cohors III Gallorum equitata}, but this unit was apparently only present there from c. AD 39/40 to 42. Perhaps there were also infantrymen stationed in this fort in the years AD 42-69, but so far it has been assumed that an ala or an ala detachment occupied the fort after

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\begin{enumerate}
\item\textsuperscript{1336} Roxan (1973, 568) calculated that between 56\% and 76\% of the Iberian cohortes were partly mounted.  
\item\textsuperscript{1337} Deschler-Erb 1999, 40-45; Hoss 2011, 34-36, fig. 4.3; Hoss 2014, 219-225, type B.4.  
\item\textsuperscript{1338} At Chassenard (France) a set of these plates was found as part of a grave inventory. Since a visor mask of a helmet was also found in the same context, it is assumed the grave belonged to an officer of a cavalry unit. There are no other finds, such as horse gear, to substantiate this claim. Hoss (2011, 41-42) suggests the belt was perhaps given to the cavalry officer as an award. See also Hoss 2009.  
\item\textsuperscript{1339} Hoss 2014.  
\item\textsuperscript{1340} Hoss 2014, catalogue \textit{Metallfunde}, type B.1.a: nos B.1, B.13-16, B.21-25, B.47-62, B.64-66, pl. 25-26; type B.4.b: B.679, B.681-683, B.691-692, pl. 39-40. I did not include no B.668 (from Moers-Asberg) and B.121 (from Xanten-pre-colonia), because I am not convinced that these examples originally functioned as (infantry) belt plates.  
\item\textsuperscript{1341} Bakker & Bron 2013, 58, 60, nos 3.94-3.98; 3.118-3.121.  
\item\textsuperscript{1342} Hoss 2011, 42-43, fig. 4.7. This concentration may well be due to the large find complex of the Vindonissa \textit{Schutthügel}. Cf. Hoss 2014, 225.
\end{enumerate}
\end{footnotesize}
Finally, research has yielded for Velsen 1 more indications for infantry than for cavalry; the belt plates strengthen this image.

VI.6 Horse gear and other cavalry equipment

Generally speaking, a significant number of horse gear or cavalry equipment may indicate the presence of more horsemen than just an officer travelling on horseback. A good example of a site where a strikingly high number of cavalry equipment cannot but attest to the presence of mounted troops is the Kops Plateau at Nijmegen. The 1986-1995 excavations alone yielded over one thousand iron and bronze pieces of horse gear, including various types of bridle bits and no less than eleven bronze saddle horns. On the other hand, there are sites that have a remarkable lack of horse gear or cavalry-related finds. Alphen aan den Rijn, for instance, has produced so little horse gear that the presence of a sizeable cavalry unit can be excluded. In the following paragraph, a selection of archaeological finds that can be related to the presence of (specific) mounted soldiers will be presented and discussed.

VI.6.a Horse burials

Burials of complete horse skeletons are not common, but they do appear at some military sites along the Lower Rhine. Roel Lauwerier has pointed out that the rationale of burying an entire horse may be a very practical one. The lack of butchery marks on preserved bone fragments supports the idea that horse meat was in principle not eaten in the military settlements on the Lower Rhine. This entails that when a horse died, one had to dispose of the animal. Removing the horse in its entirety from the settlement and burying it in the periphery appears to have been one of the solutions. However, others assume a ritual connotation for horse burials. Concentrations of such burials in the Danube region, Scandinavia and the southern Baltic region, may hint at an association with people from one of these regions. Because of the lack of grave goods or other objects interred together with the animal remains, horse burials are often difficult to date. In some cases, however, a 1st-century date can be inferred for horse burials near military settlements on the Lower Rhine. These will be discussed below.

Nijmegen-Hunerberg and Nijmegen-Kops Plateau

Archaeological investigations in the eastern part of Nijmegen have yielded several horse burials, apparently in the periphery of the military installations. On the southwest side of the Kops Plateau three horse burials were unearthed in 1979. On account of the stratigraphy the burials can be dated to the second half of the 1st century AD. During the 1986-1995 excavations several horse burials were discovered in the so-called southern annex. The horses have been buried near a large building considered as a horse stable. Two more horse skeletons

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1344 According to the finds database of these excavations, 1,123 of the 14,183 records pertaining to iron and bronze finds are labelled as horse gear. Cf. Van Enckevort 1998/1999, 141; Van Enckevort & Willems 1994, 126.
1348 Willems et al. 1992, 34.
were found buried beneath the foundations of a late Flavian building in the canabae west of the Flavio-Trajanic legionary fortress. They are the remains of two stallions of a larger, non-native stock. The withers height of at least 150 cm suggest they were used by the military or at least came from the same source of supply.

Kesteren

At Kesteren-Prinsenhof part of a Roman cemetery estimated to have contained some 200 graves has been excavated. The excavated burials were dated from the late 1st to the early 3rd century AD on account of the associated pottery. The area also contained a large number of pits with horse remains. A single bone sample has produced a radiocarbon date no later than AD 126. If more horses would have the same age, this would mean that they were buried before the area was used for human burials. The large mean withers height of 143 cm supports the hypothesis that these horses were of non-native stock and that the horse burials relate to the Roman military already being present there during the 1st century AD. The excavation drawings show that many of these pits are cut by cremation burials, indicating that these horse burials were no longer visible or known to the people who created the cremation burials. This suggest a considerable distance in time. The 2nd-century use of the terrain as a human cemetery has in the past been explained as an indication for a break of several years or perhaps even decades, for instance after the Batavian Revolt, in the military presence at Kesteren. However, only a part of the cemetery has been investigated, and the earlier mentioned excavation drawings make clear that the cemetery was at least partly washed away. There is thus no clear evidence for an interruption in the military presence at Kesteren, but the data taken from the horse burials and their relation to the cremation burials corroborate the assumption that this military presence possibly already started in the pre-Flavian period. The buried horses may have belonged to the pre-Flavian garrison, which may have been (partly) mounted.

VI.6.b Horse bridle and bits

The bridle is the part of the horse gear that is fitted around the horse’s head. It basically consists of a headstall, a bit and the reins. The bit is the piece of metal, consisting of one or multiple parts, which is placed directly in the horse’s mouth. The rider can control the horse by applying force on this piece of metal through the rein or reins which are connected to the bit. Horse bits in the Roman period have been studied by various authors. Similar to modern bits they can be divided into two basic groups: curb bits and snaffle bits. Curb bits (Knebeltrensen) have shanks and work with leverage. Snaffle bits (Ringtrensen), then and now the most commonly used type, have rings on either side of the mouthpiece; they act not with leverage but with direct pressure. It goes beyond the framework of the research project at hand to discuss the appearance and use of horse bridles and bits.
of horse bits in the Roman period at great length, but some variants have such a limited distribution that they may indicate a specific cultural or ethnic tradition. When they appear along the Lower Rhine, they potentially function as markers of identity or movements of the cavalrymen stationed there.

A decorated hackamore at Krefeld-Gellep

Before turning to the more exotic pieces of horse gear, first a fragment of a so-called hackamore (Metallzaum) from Krefeld-Gellep needs to be addressed. This bronze bridle piece was recovered from the fill of a 2nd-century ditch around the auxiliary fort. It stands out for its shape and decoration. On the nose band a decorative pattern imitating leaves on a branch has been etched into the bronze (fig. 39).

The object was recognized by Robert Fahr, who pointed out an interesting connection with the Campanian region. Simon Ortisi has classified horse gear with the ‘laurel branch’ type of decoration as a separate group, the Lorbeerzweiggruppe. Nine hackamores with the same decorative pattern have been discovered in Pompeii and Herculaneum, but so far none outside of these Vesuvian cities. This may be due to the slight, fairly superficial decoration, which may be badly visible in other cases, but it could also be because of a limited production and therefore distribution of this product. Christina Simon Ortisi suspects that the hackamores of the Lorbeerzweiggruppe were produced in Pompeii, where six of the nine decorated examples have been found. Fahr allocates Campania as a wider region of origin to the hackamore from Krefeld-Gellep, probably because no actual production site has been discovered. Given the presence in Pompeii and Herculaneum, this type of hackamore may be dated to the second half of the 1st century AD or slightly earlier.

When the hackamore has indeed been manufactured in Campania and brought from there to the Lower Rhine, this was most likely not done by a common cavalry soldier but rather by an officer. It is not to be expected that common soldiers would bring such expensive horse gear from home to their army station. A connection with the higher social echelons is further suggested

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1357 Fahr 2015.
1360 Fahr 2015, 132.
1362 Fahr 2015, 135.
by the finds from Pompeii and Herculaneum, where *Lorbeerzweiggruppen* hackamores were discovered in houses of the middle and upper classes.\textsuperscript{1363} However, it must not be forgotten that common cavalry soldiers earned better wages than their colleagues in the auxiliary infantry units.\textsuperscript{1364}

The find context of the Krefeld-Gellep hackamore does not allow for a clear association with a particular phase of the fort, but a Flavio-Trajanic date for its deposition seems most likely. Géza Alföldy suggested that the *ala Afrorum* stayed at Gellep before the end of the 1st century AD.\textsuperscript{1365} After the Batavian Revolt first the *ala Sulpicia civium Romanorum* and then the *cohors II Varcianorum equitata civium Romanorum* appear to have been stationed here.\textsuperscript{1366} However, the hackamore could also have been lost in battle during the Batavian Revolt, and with other residual finds have ended up in the fill of the 2nd-century ditch. In that case, it could have belonged to a member of one of the units that came to the assistance of the troops stationed and besieged at Gelduba in late AD 69.\textsuperscript{1367} Different types of troops – legionary or auxiliary, infantry or cavalry – were at that time present at Krefeld-Gellep, and a ‘Campanian’ officer can in theory be associated with either one of them. Nonetheless, the presence of this Campanian object at Krefeld-Gellep highlights that although the majority of the men operating in the Lower Rhine region were common soldiers of different origins, there were also men present who came from higher echelons of Italo-Roman society. They also contributed to the cultural transformation taking shape here on the northern frontier.

**A Thracian curb bit at Xanten-Vetera I**

The so-called *Hebelstangengebisse* constitute a distinct group within the category of curb bits.\textsuperscript{1368} They are meant to be used with a single rein, held in one hand. The rein conveys the message to the horse via the extended shanks. Between the two shanks or cheekpieces the bit or mouthpiece is placed. To keep the bit in its place, a further strap or chain went under the chin of the horse. When pressure is put on the shanks through the rein, the bit moves in the horse’s mouth, forcing it to obey. To make this action more effective, the *Hebelstangengebiss* is equipped with wheels encircling the actual bit or with a high curve in the bit. In both cases, the horse feels extreme discomfort when it does not directly obey to the pressure and holds its head in the desired, subdued position. The severity of this type of horse bit makes it a very effective type, especially in battle situations where actions need to be quick and direct.

*Hebelstangengebisse* can be divided into two general types, known as the Italian type and the Thracian type.\textsuperscript{1369} The Italian curb bit with its typically high curve is originally found in contexts from the late 4th and early 3rd century BC in Italy. Later on the type spread gradually throughout the Roman Empire, probably in the wake of the army. The Thracian curb bit on the other hand has a strong find concentration along the Lower Danube, especially in the northwestern part of modern-day Bulgaria.\textsuperscript{1370} Although the differences between the Italian and Thracian curb bits are disputed, conspicuous four-knobbed wheels encircling the

\textsuperscript{1363} Simon Ortisi 2014, 104, 169-170.
\textsuperscript{1364} Cf. Fischer 2012, 20, fig. 5.
\textsuperscript{1365} Alföldy 1968, 12.
\textsuperscript{1366} Fahr 2015, 133, n. 18.
\textsuperscript{1367} Fahr 2015, 134.
\textsuperscript{1368} Hyland 1990, 136-139.
\textsuperscript{1369} Cf. Simon Ortisi 2014, 85-91.
\textsuperscript{1370} Werner (1988, 101) associates the distribution of pre-Roman specimens of this curb bit with the territory of the so-called Padea-Panagjurski Kolonii-group. See Werner 1988, pl. 71,B for a distribution map of the equivalent Werner type (Typ XVI).
actual bit placed in the mouth of the animal are generally considered to be a diagnostic element of the Thracian type (fig. 40, right). \textsuperscript{1371} Such a four-knobbed wheel has been found at Xanten-Vetera I (fig. 40, left). \textsuperscript{1372} Made of bronze, it measures 2.8 by 2.8 cm. These wheels are predominantly known from Iron Age sites in southeastern Europe. Normally they are made of iron, as are horse bits in general because of the toxic effects of oxidized bronze. So far two more knobbed wheels are known from western Europe, from Yverdon-les-Bains in Switzerland and Oberursel-Oberstedten in Germany. \textsuperscript{1373} The latter case concerns a discovery at the site of the pre-Roman Heidetränk-Oppidum. At Yverdon-les-Bains, a bronze four-knobbed wheel was found in an Augustan find context. Contextual information from other sites within the boundaries of the Roman Empire supports an equally early, Augustan date for the wheel found at Vetera I. From the Magdalensberg an iron specimen is known from an Augustan find context. \textsuperscript{1374} The rarity of the Thracian curb bits in the western part of the Roman Empire and their concentration in pre-Roman times in the Lower Danube valley suggest that the piece from Vetera I may be linked with a cavalryman originating there. For the Augusto-Tiberian period an association with the \textit{ala I Thracum} comes to mind. A fragment of an inscription bearing the letters \texttt{[---]I \textit{AL TRA[---]} re-used as building material in post-Roman Xanten has been interpreted as a reference to the \textit{ala I Thracum} and dated prior to AD 43, when the unit was sent to Britannia. \textsuperscript{1375} One could then conclude that the \textit{ala I Thracum} was stationed at or near Vetera I in the pre-Claudian period. If these Thracian curb bits fell out of use after the Augustan period, as the available data suggests, the discovery of a piece of such a bit on the Fürstenberg may indicate an early, Augustan presence of this unit.

\textit{A curb bit with fan-shaped shanks from Nijmegen-Kops Plateau}

The so-called Thracian group of horse bits also includes curb bits with conspicuously flat shanks, often fanning out in a propeller-shape and having two eyes or loops set quite near to each other in the middle of the shank. \textsuperscript{1376} To these loops the reins were attached. The actual bit was fastened in between the loops, by a hook or ring as an integral part of the bit itself. As a rule these shanks were made of iron, as were the accompanying mouthpieces, but the discovery of a mould suggests that they were also produced in bronze. \textsuperscript{1377} Another typical

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\footnotetext{1371} Schönfelder 2002, 275.
\footnotetext{1372} Hanel 1995, no B 212a (inv.no 18925), pl. 38. The little wheel was discovered in the \textit{intervallum} in the northwestern part of the fortress area. As it apparently came from the lower burnt layer 2, it can be deduced that it predates the latest, Neronian fortress. Cf. Hanel 1995, 1, 287-314. In theory, it can then be brought in connection with the \textit{ala} that is assumed to have been stationed on the Fürstenberg or nearby, under the command of C. Plinius Secundus, in the late 40s or 50s AD. But a relation with other cavalry units or cavalrymen belonging to one of the legions is equally possible.
\footnotetext{1373} Cf. Schönfelder 2002, 275, n. 786 (includes references).
\footnotetext{1374} Dolenz 1998, no *M239, pl. 21. This iron piece has a length of 3.2 cm.
\footnotetext{1375} CIL XIII 8659, Cf. Alfeldy 1968, 36, 187-188, no 67.
\footnotetext{1376} Werner 1983, 235; Werner 1988, 48-51 and pl. 70a (type VIII).
\footnotetext{1377} A mould discovered at Pecica (Romania) shows, in addition to the bronze shank from Augsburg-Oberhausen, that these bits were also produced in bronze. Werner 1983, 237; Werner 1988, 50.
\end{footnotesize}
feature of this kind of curb bit are round wheels set with thorns, which were positioned inward. Thus, the rider could administer more pressure to the horse’s mouth, hoping to better control the animal. According to Wolfgang Werner, curb bits with fan-shaped shanks and raised eyes for the reins date from the end of the 2nd century BC until the beginning of the 2nd century AD. They are typical for the Dacian territory in modern-day Romania.1378

Outside Dacia horse bits of this type are hardly found. The few pieces known from Roman sites attest to connections with the Dacian region. So far, only four findspots are known within the Roman Empire: Inota (Hungary), the Magdalensberg (Austria), Kempten (Germany) and Augsburg-Oberhausen (Germany).1379 An iron bit with silver inlay on the shanks were part of the grave inventory of a burial mound at Inota, dating from the first half of the 2nd century AD.1380 It has been suggested that the adolescent buried here was a relative of the man buried in a nearby burial mound, who appears to have served as an auxiliary cavalryman in the Roman army and who was probably of local, Eraviscan descent.1381 An iron shank belonging to a Dacian curb bit found on the Magdalensberg comes from a Claudian find context. Although the Roman military was certainly present at the Magdalensberg, amongst others represented by legionary cavalry and by auxiliary soldiers of the cohors I Montanorum, the Dacian curb bit may also have been used by a civilian horseman who lived or worked in the settlement on the slope of the mountain.1382 From an apparently civilian context in Kempten stems a fragment of a bit with rhomboid broadened shanks. This piece has been dated to the final quarter of the 1st century AD.1383 At the military site of Augsburg-Oberhausen1384 a shank was found with knobs marking the outer ends. Another remarkable feature is that it is made of bronze; as a rule, these bits are made of iron. As the Roman military presence in Augsburg-Oberhausen has been dated to the middle and late Augustan period, possibly until AD 15/16,1385 the fragmentary Dacian curb bit found at this site is the earliest of the set of four.

To this short list a shank of a Dacian curb bit unearthed on the Kops Plateau in Nijmegen can now be added (fig. 41).1386 It is made out of iron and measures about 185 mm in length and 6 mm in width in its current state. Originally it was larger, but unfortunately it has been subject to degradation. The loops are about 49 mm apart, measured from heart to heart. Unlike most of the shanks of Werner’s type VIII, Knebel in Fächerform mit zwei Ösen, this iron shank does not broaden out.1387 Instead, it remains straight. The outer ends may have been somewhat rounded. These features are shared by a type VIII shank discovered

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1381  Mráv 2006, 57-59.
1382  Dolenz 1998, 91-93, pl. 21, esp. no M235. Dolenz further notes (1998, 92, n. 383) that various artefacts with Dacian cultural traits have been discovered on the Magdalensberg. It is suspected that the (geographical) vicinity of the Norici to the Dacian people in the second half of the 1st century BC, after the Dacians had conquered territory in modern Slovakia under the leadership of king Burebista, resulted in a borrowing of Dacian cultural forms by the Norici.
1384  Werner 1983.
1385  Deschler-Erb 2014, 11.
1386  Find no 443/046.
1387  Cf. Werner 1988, 48-51. The shank of the Kops Plateau was not found with a mouthpiece, which could have identified it more securely.
at Costești (Romania). However, given the straight shape, it is perhaps better to identify this piece as a shank of Werner’s type V, *Kniebel mit zwei Durchlässen*. Type VIII as well as type V are concentrated in the Dacian region, with type VIII more to the west and southwest and type V more to the northeast of the area. They both made their appearance at the end of the 2nd century BC. The shank from the Kops Plateau cannot be securely dated. It is almost certainly pre-Flavian, but it cannot be decided whether it is Augustan, as the one from Oberhausen, or perhaps Claudian, as the one from Magdalensberg.

The find may thus indicate the presence of a Dacian cavalryman in pre-Flavian Nijmegen, but this is not consistent with the late start of Dacian recruitment. It has convincingly been argued that Dacians were in principle not recruited before the Dacian Wars (AD 101-102 and 105-106), apart from enlistments into the fleet in the period of AD 44-45. The nominally Dacian auxiliary units were only created under Trajan. This does not rule out the possibility that an individual of Dacian origin joined the Roman army, perhaps on his own accord. The chronological framework of the Kops Plateau site allows this to have happened against the backdrop of the considerable number of Dacian men being drafted into the imperial fleet with stations in Ravenna and Misenum, during Claudius’ reign. For the find from the equally military site of Augsburg-Oberhausen, the situation is more difficult to explain, because it predates the Claudian period.

**Tripartite bits from Nijmegen-Kops Plateau and Vechten**

Adding to the diversity of horse bits is a type which consists of two keyhole-shaped sidepieces connected by a ring, in a round or figure-of-eight shape. This type can be classified as a *doppelt gebrochenes Gebiss* or a tripartite bit. All parts are in principle made out of iron.

In the research area tripartite bits are present in large numbers at Nijmegen-Kops Plateau and with a single piece at Bunnik-Vechten. The piece from Vechten has a total length of 12 cm, is made out of iron and has a figure-of-eight shaped central link (fig. 42). Unfortunately, there is no context information available for this find. For the iron sets of links from the Kops Plateau, the situation is different. In all, 43 iron examples show characteristics of a tripartite set consisting of a central link between two keyhole shaped attachments. Of 23 fairly complete sets only one has a round central link; the remaining 22 have a central link more or less in the shape of a figure-of-eight. The majority of the horse bits from the Kops Plateau appear to have been deposited in the pre-Claudian period.

The total length of the Kops Plateau bits ranges from 9 to 15 cm, with an average of 10 cm. However, the part of the bit that was placed in the mouth of the animal, is considerably smaller. The mouth of the animal probably enclosed the central link and the joined part of the side links, the part that is not flattened out. This reduces the actual usable width to an average of about 8 cm. In comparison, it was noted that the *Nützbreite* for 18 complete horse bits

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1388 Werner 1988, no 163, pl. 23,163. The context of this piece is unknown.
1389 Werner 1988, 36-44, esp. pl. 23,146-147. No 147 is only 101 mm long.
1390 Werner 1988, 44, 51, pl. 70.A.
1391 Werner 1988, 44, 51, pl. 87.
1392 Dana & Mates-Popescu 2009.
1393 Martini 2007, 532.
1394 VF* 1062 (RMO).
from Augsburg-Oberhausen ranged from about 7 to 11 cm. The average of 8 cm for the Kops Plateau bits falls within this range, but is still considerably smaller than the ascertained average size of horse bit mouthpieces from the Treveran region, which is 10-12 cm. Since this average size of 10-12 cm can be cautiously extrapolated to animals with a withers height of c. 132-147 cm, it may be questioned whether these iron links of averagely only 8 cm were used as bits for horses or equids at all. However, had these links for instance functioned as ring junctions of horse gear, they would have been made of bronze instead of iron. Since a better explanation for the function of the iron links has not been found, the identification as horse bit will be maintained until proven otherwise.

Bits of this type have been found at various military bases in the Augustan period, such as Oberaden, Haltern and Augsburg-Oberhausen. They seem, however, to be lacking on contemporary military sites in Switzerland (Kaiseraugst, Basel-Münsterhügel), at Xanten-Vetera and on the Magdalensberg. Their absence from Werner’s overview of Iron Age bits from the Lower and Middle Danube suggests that their origin must not be sought in the Danubian area.

Clear indications for mixed garrisoning of early Roman camps as Oberaden and Haltern make it difficult to associate this type of horse bit with a specific cavalry tradition. This also goes for the horse bits found at Augsburg-Oberhausen, which is considered to have been built in the mid-Augustan period. Its garrison appears to have been mixed, consisting of both legionary and auxiliary soldiers. The auxiliary soldiers were predominantly cavalry soldiers. It is not clear to which units they belonged, but the variety in horse gear – especially the bridles – suggests they had diverse backgrounds. Remarkably, a tripartite horse bit is also included in an overview of horse gear from the fort at Weißenburg. The fort at Weißenburg was founded c. AD 100 and from the beginning almost continuously manned by members of the *ala I Hispanorum Auriana*, originally raised on the Iberian Peninsula. This suggests that the bit was not lost before the 2nd century AD, leaving a chronological gap of at least three generations between the tripartite bit from Weißenburg and the ones from the

1396 Hübener 1973, 39.
1397 Martini 2013, 94-95. These dimensions correspond to those measured by Simon Ortisi (2014, 141) for horse bits from Pompeii and Herculaneum, for the average length of the mouthpieces recovered from these cities lies between 9 and 12 cm.
1398 Cf. Simon Ortisi 2014, 141.
1399 Martini 2007, 532-534.
1400 Martini 2007, 536-537, n. 45.
1403 Cf. Martini 2007, 533, fig. 6. Both depicted bits have a circular ring connecting the two sidepieces.
1404 Deschler-Erb 2014.
1405 At least one of the other recovered horse bits can be classified as a so-called Dacian *Hebelstangentrense*. This suggests a connection with the Dacian region. Cf. Werner 1988, 51.
1406 Junkelmann 1992, 13, fig. 2.
early Roman camps at Oberaden, Haltern and Oberhausen. Without new parallels that can fill this gap, this discrepancy is difficult to understand.

The presence or absence of tripartite horse bits is not easily verified, for they may have been mistaken as part of chains, as a fitting or a junction ring. Thus, a horse bit found at Wederath was at first described as an iron ring with two attachment loops. It was part of the inventory of an early Roman grave. The iron bit consists of a closed round ring hinged into two figure-of-eights, each with one flattened side. These flattened sides will have held the reins. The grave inventory also includes a hardly worn bronze coin of the first Lugdunum altar series, dating to the period 10-3 BC. This allows the grave to be dated around the beginning of the Common Era. The horse bit was not instantly recognized as such. Simone Martini directed attention to it, emphasising that the combination of this horse bit together with the equally deposited broad axe and hatchet identifies the buried person as a native mounted warrior. Indeed, the grave was part of a burial ground next to the vicus Belginum, where people have been buried over several centuries. Some of the graves include weaponry and are positioned close to the nearby short-lived early Roman fort. This has led to the assumption that soldiers stationed in this fort were buried in these graves, among the people from the vicus. However, finds from elsewhere indicate that soldiers and civilians were not buried together; they appear to have had their own separate burial grounds. The person buried with the iron horse bit, an axe and a hatchet was more likely a warrior of local origin who returned home rather than a soldier who served in the nearby fort. Jenny Kaurin put forward a different identification for this grave: the man buried here may have been a butcher instead of a warrior, going by the implements buried with him. A horse bit would not be amiss among them, considering that skins of horses were probably valuable commodities and that there are indications that horse meat was consumed, at least within some communities and at some point in time. Either way, the native signature of this burial may be taken to indicate that the horse bit was typical for the region.

Based on the now available information, the presence of the tripartite type of horse bit at Vechten and especially Kops Plateau could hint at the presence of cavalrymen with a connection with the Treveran region. This must remain for now, however, a tentative suggestion. Still, from that perspective it may be worth considering whether the ala Treverorum might have been stationed on the Kops Plateau, given the high number of these horse bits discovered here. Tacitus writes that Treveran horsemen were operating not far from Xanten-Vetera when the Batavian Revolt broke out. It is not certain that these horsemen belonged to the ala Treverorum, of which no definitive or conclusive evidence exists. However, Tacitus’ description allows for their presence at Nijmegen. The individual horse bit discovered at Vechten may have been used by a horseman

1407 Schumacher 1989 (grave 978). Cf. Kaurin 2015, 122. Here the date range of the grave is more stretched, from 30 BC until AD 15.
1409 Martini 2007, 533-534.
1410 This fort, measuring 3 ha, was probably manned for only a few years in the Augustan, possibly Tiberian period. Haupt 2010.
1411 Martini 2013, 45.
1412 E.g. Van Enckevort & Heirbaut 2013 (Nijmegen); Trumm et al. 2013 (Vindonissa).
1413 The hatchet might have been used to kill animals, the large knife to cut up carcasses and skin them, and the shears to further cut the removed skins. In this way, the set of objects could represent a butcher’s kit. Kaurin 2015, 248.
1415 Tac. Hist. 4.18. See also Alföldy 1968, 37-38.
of Treveran origin serving in a nominally non-Treveran cavalry unit.Treveran cavalrymen may have been operating in the Lower Rhine region sometime before AD 69. Krier proposes that the supposed national cavalry unit of the Treveri was created under Tiberius, and was shortly afterwards transferred to the Rhine area. In AD 69, the unit belonged for sure to the Lower German army, and it may have already been sent to the Lower Rhine area under Caligula or Claudius. An early, pre-Claudian station at Nijmegen-Kops Plateau could fit this scenario.

Ring bits from Neuss, Krefeld-Gellep, Nijmegen-Kops Plateau and Vechten

Ring-shaped bridle bits are not to be confused with the common snaffle bits. The mouthpiece has not the shape of a bar but of a ring. The few specimens recognized so far will be discussed together in this section, for a better understanding of their function and meaning.

The first to be discovered were three ring bits at Krefeld-Gellep. The circular rings were found near and around the lower jaw of horse skulls (fig. 43). The three fallen horses concerned are considered as casualties of the battle between the Batavian alliance and Roman forces at Gelduba in the autumn of AD 69, as described by Tacitus.1421

The ring bits from Krefeld-Gellep stand out for their peculiar closing mechanism. It consists of an upright eye through which the pierced other end of the ring fits. A pin would then have secured the fastening. This manner of closing seems to be unique in bridle bits. If they had not been found in the context of horse skeletons, the ring bits could easily have been mistaken for other objects, not related to horse gear, such as shackles or rings for carrying stripes.

In view of the context of the finds at Krefeld-Gellep, it is tempting to attribute the ring bits to the Batavians or their allies. The location of the horse burials on the battlefield and the reconstruction of the course of the battle seem to confirm this. Prior to the Batavian revolt, however, the rebels had been part of the Roman army for a considerable time. Therefore, the equipment of their horses might just as well have had Roman instead of Germanic roots. As a matter of

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1416 Compare the case of T. Staberius Secundus, a Treveran serving in the ala Moesica upon his discharge in AD 78 (CIL XVI 23). See Alföldy 1968, 38.
1418 Alföldy 1968, 37-38.
1419 A large part of this section also appears in a contribution to the proceedings of the 19th Roman Military Equipment Conference, which was held in St Andrews in June 2016 (Zandstra in press).
1420 The three rings are recorded as 3960/22, 4428/1 and 6119/1. See Pirling & Siepen 2006, 388-389.
1421 Tac. Hist. 4.26-35.
1422 Reichmann 2006a, 500-501; 2006b, 88-89.
fact, typically Germanic bridle bits from the Iron Age are curb bits, not ring bits. Unfortunately, the horse burials do not give us more clues to the background of their riders. A possible exception is grave 3960 in which also 17 melon beads were discovered. Melon beads are known as rather generic Roman attire and are not considered to be typically Germanic.

Perhaps other ethnic associations are more appropriate. Margareta Siepen thinks that the ring bits may have been used by Thracian auxilia. Epigraphical sources inform us that Thracian cavalry was stationed in the Lower Rhineland during the 1st century AD. Moreover, bronze rings of a size similar to those from Gellep but which close in a different way, namely through a sort of mortise-and-tenon joint (fig. 44), have been found in the wider Thracian region in combination with other pieces of horse gear. These finds, however, date from the 4th century BC until the late La Tène period. Remarkably, this type of horse bit is not included in Werner’s overview of Iron Age horse bits in the Middle and Lower Danube region. Although there may thus be a considerable chronological gap between the rings with mortise-and-tenon joint and the Gellep ring bits, the Thracian finds provide a certain match.

Upon further inspection the Thracian finds are not alone. Bronze rings with a riveted fastening very similar to the ones from southeastern Europe have also been discovered on the Iberian Peninsula. According to Ignasi Garcés Estallo, nine of these rings have been found in the eastern part of the peninsula. The rings can be divided into two types, based on the number of rivets. The two types together date from between the 4th century and the 1st century BC. Their average diameter lies around 10 cm, with extremes at 6 cm and 14 cm. That they may have functioned in the same way as the ones from Gellep is shown by two horse burials unearthed in eastern Spain.

Two other horse skeletons, found outside of Spain, further attest to the use of these rings as mouthpieces of horse bits. One horse inhumation was discovered in eastern Italy, in a cemetery dated to the 5th-4th century BC. The other ring was found in western Hungary as part of a supposed ritual deposition dated to the 2nd century BC. The horse from Hungary appears to belong to the same type as the horse from Italy, according to Elisabeth Jerem. The archaeological context clearly shows that the ring was positioned around the lower jaw of the horse, as at Gellep. Traces of wear on two sides of the riveted iron ring might well stem from leather straps fastened onto the ring, most likely used as reins. The diameter of the ring bit varies between 11.2 and 11.7 cm.

From further afield comes a similar bronze ring, with a diameter of 12.3 cm, found at Gamla in Israel. Upon discovery the ring was ‘inside the jaw’ of a mature horse, one of two horse skeletons discovered here. These two horses

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1423 Siepen 2008, 77-78.
1425 Kull 1996, 428.
1426 Werner 1988. It is possible that Werner did not recognise any potential ring bits as such.
1427 Garcés Estallo 2007, 75-77, fig. 9. See also Graells i Fabregat 2008, 93.
1428 In this I follow Graells i Fabregat (2008, 93-94). See also Garcés Estallo 2007, 68-71, 75-76.
1429 Graells i Fabregat 2008, 93.
1430 Lucas Pellier 2004, 104 (6 cm); Graells i Fabregat 2008, 93 (14 cm).
1431 One skeleton was discovered in Burriana-La Regenta (Castellon), the other in Térmens-La Pedrera (Lleida). Burriana: Mesado Oliver 2003; Térmens: Garcés Estallo 2007, 68-71, fig. 2.
1432 In Altoino-Le Brustolade (Veneto). Jerem 1998, 327-328, fig. 7; Quesada Sanz 2003, 15, fig. 1D; Garcés Estallo 2007, 70.
1434 Jerem 1998, 326.
1435 Jerem 1998. See also Garcés Estallo 2003, 76.
1436 In Area B at Gamla. Stiebel (2014, 99, no 110) identifies it as a type or part of a halter.
appear not to have died during the siege of Gamla in AD 67, but well before, in the second half of the 1st century BC. For that matter, Roman-era horse gear has been found only in small numbers at Gamla, which is explained by the nature of the siege in AD 67, dictated by the geographical setting of the city which was not ideal for cavalry charges.\footnote{Stiebel 2014, 99.}

Rings with a riveted closing mechanism are also attested at various pre-Roman sites more central in Europe, but most of these may rather have served as personal ornaments such as bracelets and torques.\footnote{E.g. a bronze torque (with articulated terminal knobs and a hinge on the opposite side) found in Room OR/20c on the Magdalensberg, which has been deposited before 20 BC. See Mossler 1963, 75, 77, fig. 46.8 and 47; Schindler Kaudelka 2003. Massive bronze rings with a so-called Steckverschluss similar to the here presented ring bits are also known from earlier grave contexts (i.e. Early Iron Age) in the Celtic Alpine region. These rings have a significantly smaller diameter (c. 6 cm), and in particular the find circumstances allow them to be identified as personal ornaments. Cf. Drack 1970, esp. 61, fig. 5.2. These rings are not be confused with the ring bits from later times.} Some of the rings, however, are part of so-called chariot burials, which allows them to be identified as horse gear.\footnote{Schönfelder (2003, 104, table 16) mentions the sites Verna (France), Belgrade-Karaburma (grave 16, Serbia; see also fig. 36) and Mezek-Haskowo (‘Maltepe’ mound, Bulgaria).}

But even when similar rings have not been found in connection with a horse skeleton or other horse gear, the minimal execution of the rings and the peculiar closing mechanism contradicts the often suggested function as a ring for holding strigiles.\footnote{Schönfelder 2003, 103.} As a rule, strigiles rings are finely decorated, a feature lacking from the rings under discussion. A use as a ring for carrying strigiles was also put forward for simple rings of this riveted type found in two Republican army camps in Spain.\footnote{In Numancia-Renieblas and Cáceres El Viejo. Ulbert 1984, 77, pl. 12; Schönfelder 2003, 103-104, table 16.} Instead, they may well have been used by local cavalrymen recruited by the Roman army who were garrisoned or at least present in these early Roman forts.

It can be concluded that there is enough evidence for an Iron Age tradition of using a single ring as a mouthpiece on horses, especially from the discovery of rings \textit{in situ} around the lower jaw of several horse skeletons unearthed in various regions of Europe. Although none of the examples cited above, coming from different regions of the Empire, are of the same type as the ones from Gellep, the basic form and function was the same. Using such a ring bit to control a horse was not a subtle method. Nowadays similar ring bits are still in use, but only when other types of bits fail on horses that are difficult to control.\footnote{As such, the modern Tattersall ring bit and the Chifney ring bit are explicitly advised only to use in leading horses, not in riding them. Cf. Schönfelder 2003, 105.}

The identification of the Roman-era ring bits at Gellep directed attention to other metal rings from Roman military contexts that may qualify as horse bits. Firstly, this has resulted in the (re)discovery of two Gellep-type ring bits among finds from Haltern and Kalkriese. Because of their unusual, non-typical shape,
these bits were initially not recognized as horse gear. Most of these have been identified as rings for carrying strigiles.\textsuperscript{1443}

Further examination of finds from the Lower Rhine region has considerably extended the number of these ring bits. From east to west, there are one piece at Neuss,\textsuperscript{1444} the three already published ring bits at Gellep,\textsuperscript{1445} six pieces at Nijmegen of which five are with certainty from the Kops Plateau,\textsuperscript{1446} and one piece at Vechten (see fig. 45).\textsuperscript{1447} In total, eleven ring bits from Roman camps in the Lower Rhineland have now been counted. Seven were made of bronze and four of iron. Interestingly, Roman bridle bits were normally made out of iron, not bronze, because bronze would eventually poison the animal.\textsuperscript{1448} Ring bits made out of iron will probably have been subject to heavy decay, to an unrecognisible

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\textsuperscript{1443} Cf. Müller 2002, 62, 126, 207, no 806 (Haltern); Harnecker 2008, 26, no 430, n. 49 (Kalkriese). Cf. n. 1440.
\textsuperscript{1444} Inv.no R1452 (Clemens Sels Museum Neuss). I thank Dr C. Pause (curator Clemens Sels Museum Neuss) for providing me with information about this object.
\textsuperscript{1445} Find nos 3960/22, 4428/1 and 6119/1.
\textsuperscript{1446} Find nos 290/087, 292/017, 253/143 (two examples) and 378/198, all Kops Plateau. No XXI.K.157 comes from the Kam collection, and has most likely been found in Nijmegen, perhaps also on the Kops Plateau. With thanks to L. Swinkels (curator Museum Het Valkhof, Nijmegen) for bringing the latter one to my attention and providing me with further information.
\textsuperscript{1447} No VF* 640 (RMO).
\textsuperscript{1448} Cf. Junkelmann 1992, 16; Wilbers-Rost 1994, 61, n. 110. It is unclear why bronze mouthpieces continued to be used. An explanation could be that the material is softer and therefore better malleable than iron. Especially with the unusual shape of the ring bits this may have been advantageous.
state. It is very likely that the number of recovered ring bits is larger, but that some of the iron specimens cannot be identified as such anymore.

Conclusive context information is only available for the ones from Krefeld-Gellep, which can be accurately dated to the fall of AD 69. The ring bits recovered on the Kops Plateau at Nijmegen are pre-Flavian, but cannot be dated more precisely. The pieces from Neuss and Vechten most likely also date from the 1st century AD, but context information is lacking.

Considering the eleven ring bits from the Lower Rhine area together, their diameters range from about 10 to 14 cm, with an average of around 11 cm. The width of the horses' mouths would thus be about 11 cm. This ties in neatly with the width of horse bits from Pompeii and Herculaneum, which have an average of around 12 cm, and from the Treveran region, with an average of about 11 cm. Based on the modern data gathered by Simon Ortisi, we could expect the horses who would have worn these 11 cm wide mouthpieces to have had a withers height of about 137 cm. This classifies them as so-called small horses, comparable to modern-day breeds such as the Haflinger or the Fjord horse. However, it must be noted that especially among these small horses, or large ponies, the skull is large in comparison to the rest of the body. Contrastingly, there are large horses such as the Arab horse with a comparatively small and slender skull. The width of the bits may therefore be used as a rough indication for the size of the horses, but not more than that.

Even though ring bits are attested on the Gelduba battlefield and on the Kops Plateau at Nijmegen, there appears to be not enough ground for the hypothesis that these bits were used by Batavian cavalrymen. Of all possible connections, an Iberian one now seems to be the strongest. As mentioned above, pre-Roman ring bits have been unearthed on the Iberian Peninsula. For the sites where ring bits have been discovered in the Rhineland, there are indications that Iberian auxiliary soldiers were present there at some point during the 1st century AD. A tentative Spanish connection appears to be especially promising when we further consider the literary sources. Tacitus mentions with name the Vascones as the auxiliary forces that came to the aid of the Roman cause in the battle against the Batavians and their allies at Gellep. The Vascones are regarded to be the ancestors of the Basque people, living on the southeastern side of the Pyrenees. Based on what is known so far about the units originally recruited among the Vascones, these units were mostly partly mounted and levied by Galba. A recent levy could explain the use of their own, non-Roman cavalry equipment such as the ring bit. The three horses from Gellep buried with their ring bits might well have belonged to the cavalry forces that came to the rescue. But until the missing link, or rather missing ‘ring’ has been found, alternative options must be considered as well, including the possibility that the ring bits were used by mounted legionary personnel. Before the arrival of the Vascones, Tacitus writes, ‘the cavalry charged’, but it had to flee back to its own lines. It is unclear whether this cavalry was auxiliary or legionary; both options seem possible.

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1449 Simon Ortisi 2014, 141.
1450 Martini 2007, 532.
1451 Simon Ortisi 2014, 141.
1452 Ibid.
1453 Cf. Garcia y Bellido 1969, 97-102. Of the two cohortes levied among the Vascones only cohors II Vascorum is further attested after AD 70. Alföldy (1968, 61) assumed it was already sent to Britannia in AD 71.
1454 Tac. Hist. 4.33.
1455 A fragmentary gravestone found in 1975 is assumed to have been set up in memory of a member of the cohors II Varcianorum equitata. The style of the stele and the engraved text suggest a Flavian date, most likely Domitianic. It is assumed that the unit was previously stationed at Remagen, and that it moved to Gellep only after the Batavian Revolt. This would not per se hinder its presence at Gellep during the battle described by Tacitus. See Bogaers 1977, 607-610.
However, given the non-Roman character of the ring bits, an association with auxiliary soldiers from the Iberian Peninsula is more likely.

VI.6.c Horse gear fittings

Xanten-pre-colonia

In his study of militaria from the site of Colonia Ulpia Traiana, Karl-Heinz Lenz lists two strap loops made out of bronze (fig. 46). The loops are rectangular in section, with the upper part shaped as a small bar with knobs the ends. The loops have different dimensions: one has a length of 2.0 cm, whereas the other measures 2.5 cm in length. These knobbed bar strap loops are now considered to be part of horse gear, while they were previously (provisionally) classified as part of soldier’s equipment or more generally as militaria. They appear to be lacking in infantry camps along the Rhine and Danube. Instead, many are known from civilian sites in southern France that were frequented by cavalry in the 1st century AD. These knobbed strap loops seem to indicate the presence of South Gaulish cavalrymen at Xanten. The general dating of these pieces places this presence in the second half of the 1st century AD. If we follow Lenz’ suggestion that the *ala Augusta Vocontiorum* was stationed on site of the later Colonia Ulpia Traiana in the Claudio-Neronian period, then these finds could be related to members of this unit originally levied in southeast Gaul. There is, however, no secure evidence for the *ala Augusta Vocontiorum* having been stationed in Germania Inferior in that period, before it moved to Britannia.

VI.6.d Riding spurs

Riding spurs are not common finds in Roman contexts, and although every military unit – be it legionary or auxiliary – must have had mounted men among its members, they are not even typically found on military sites. Spurs will probably have been used only when necessary, when a horse did not respond enough to other riding aids. An updated typology of riding spurs remains a desideratum, but in some cases enough is known to identify some interesting associations. It appears that in northwest Europe Celtic horsemen used riding spurs before Germanic tribes did. To the earliest examples belong the plain so-called *Knopfsporen*, found in contexts dating back to the 3rd-2nd centuries BC. This type has also been found in Greece and Italy. However, the most generic form of 1st-century spurs are the so-called *Ösensporen*. They are considered to be the classical Roman type of riding spurs. These are U-shaped with eyes or loops at the outer ends, to fasten the spurs around the ankles. Völling classifies this type of spurs as Italic; they are attested at Aquileia and in early military contexts north of the Alps. In the Lower Rhine region they have been found

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1456 Lenz 2006, nos 566 and 567.
1457 E.g. Feugère & Charpentier 2012, no 59 versus Deschler-Erb 1999, nos 404 and 405 (Schurzbeschlag).
1458 Feugère & Charpentier 2012, 382. See also Artefacts entry JHA-4020 for a distribution map (www.artefacts.mom.fr, accessed on April 10th, 2018). To this may be added two pre-Flavian finds from Britain (London and Silchester, pers. comm. M. Marshall).
1460 Cf. n. 1419.
1461 Rech 2006b, 27.
1462 Rech 2006b, 35.
1463 Völling 1992, 399; 2005, 177.
at several sites. To all spurs of this type, which will be discussed in the following section, applies the caveat that they cannot be taken as exclusive evidence for auxiliary cavalrymen, but there are other indications to corroborate the claim that auxiliary cavalrymen were stationed on all the mentioned sites during the 1st century AD.

Riding spurs: Ösensporen

Neuss

At Neuss eleven spurs have been discovered,1464 of which eight practically identical ones have been found together (fig. 47). Because they are very similar to each other, they are seen as local products. They might indicate the presence of a workshop or, alternatively, constitute a storage depot.1465 The spurs are made out of bronze, although it is generally assumed that spurs from the early Imperial period were made out of iron.1466 According to Grace Simpson, the eight bronze spurs can be dated to the pre-Flavian period. In this, she follows Harald von Petrikovits who writes that these spurs have been found among the remains of the legion’s canabae in a layer predating AD 69/70.1467 Whether these particular spurs were meant to be used by legionary or auxiliary horsemen is difficult to determine.

In addition to the group of eight, two further bronze Ösensporen have been recorded at Neuss. According to Simpson, they are older than the eight discussed above.1468 One of these two stands out by the decoration below the prick of the spur; the fastening holes at the outer endings are oval-shaped.1469 The other early bronze spur bears now only the traces of an iron thorn. The fastening holes are in this case rectangular.1470 A further spur included by Simpson in her study also lacks the original iron thorn. This piece is extraordinary for the double fastening holes.1471 This appears to be an unique piece, so far.

Moers-Asberg

The finds from the fort and vicus of Asciburgium include two spurs.1472 Both belong to the type of Ösensporen. One still retains its thorn. The examples from Moers-Asberg are said to be very similar to the group of eight spurs from Neuss.

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1464 Simpson 2000, 96. Simpson describes an additional spur – no 1000/16b – but this appears to be of the rowel type. There is some discussion about the date of the latter type, but in general it is agreed that spurs with such a wheel attached to it are post-Roman. See also Junkelmann 1992, 99.
1466 Junkelmann 1992, 98.
1467 Von Petrikovits 1957, 70, fig. 23.
1469 Simpson 2000, 67, inv.no 7157.
1471 Simpson 2000, 67, inv.no 5034.
1472 Deschler-Erb 2012, 82-83, pl. 17.
If this holds true for the dating as well, then the two spurs from Moers-Asberg belong to the pre-Flavian period. In that case, they could be related to the presence of the *ala I Tungrorum Frontoniana* during the Claudio-Neronian period (rather than the *ala Moesica* being the garrison in the Flavian period) or to the presence of other cavalry units stationed there earlier. Maybe a further refinement of the dates of these spurs can help clarify this. On the other hand, it must be taken into account that these spurs can also have belonged to officers or to horsemen affiliated to an infantry unit.

Xanten-pre-colonia

One spur of the *Ösensporen* type from the area of Colonia Ulpia Traiana published by Lenz seems more rounded than the other pieces known from the Rhineland. It has been dated to the 1st or early 2nd century AD.\(^{1473}\)

Nijmegen-Kops Plateau

At Nijmegen-Kops Plateau, the frequency of spurs is particularly striking, with eleven examples belonging to at least three groups. The largest group consists of *Ösensporen*. Their number amounts to five, possibly six.\(^{1474}\) The context information is not sufficient for dating these six spurs individually, but a general pre-Flavian date may be assumed.

*Riding spurs: Knopfsporen*

Neuss

In addition to the eleven spurs listed by Simpson,\(^{1475}\) a single bronze spur of a different type has been included in an early publication of finds from Neuss (fig. 48).\(^{1476}\) This spur would have been fastened by attaching the round protruding buttons to the footgear. In Martin Jahn’s classification, this type of attachment predates the attachment through end loops.\(^{1477}\) Although rivets remain in use as a type of attachment and are further developed in a separate range of spurs throughout the Roman period, the dimensions and position of the rivets on this example of Neuss are indicative of an early date, perhaps Augustan.

A somewhat similar piece has been recovered from grave 2 at Heimbach-Weis, on the east bank of the river Rhine, north of Koblenz. The grave has been dated to the 1st century BC.\(^{1478}\) The spur was accompanied by several other grave

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\(^{1473}\) Lenz 2006, no 448.
\(^{1474}\) Find nos 260/021, 372/074 (? - no trace of loops at the outer ends), 382/070, 408/189, 424/024 and 470/038. One of these (382/070) has been published, by Van Enckevort (2004, 112, fig. 8).
\(^{1475}\) See above, n. 1464.
\(^{1476}\) Lehner 1904, pl. XXXA, 30, no 8031. B: 7 cm. Further context details are not given.
\(^{1477}\) Jahn 1921, 71 and pl. I.
\(^{1478}\) Rech 2006b, 29, fig. 39, 10.
goods, one of which is a shield knob known especially from the Balkan region. This suggests that the spur might have an origin in the southeast of Europe.\textsuperscript{1479}

This spur from Neuss further corresponds to Karol Pieta’s Type 2a of La Tène spurs in the Celtic tradition.\textsuperscript{1480} It may therefore be taken as evidence for auxiliary cavalrymen with a background in the Celtic cultural area, probably more in the direction of Noricum, the Pannonian provinces and the Balkans than the Gaulish provinces and Britannia.

\textbf{Germanic riding spurs}

\textbf{Nijmegen-Kops Plateau}

As noted above, the eleven riding spurs from the Kops Plateau can be divided in at least three groups, of which the \textit{Ösensporen} have already been discussed. One, possibly two more can be identified as so-called \textit{Dreikreisplattensporen}, with a plate constituted by three joined circles (fig. 49d, e),\textsuperscript{1481} and two more are so-called \textit{Stuhlsporen} with a propeller-shaped plate (fig. 49a, b).\textsuperscript{1482} Both types of spurs are rare in Roman contexts. This is also true of a fifth spur, discussed below.

For the origin of the \textit{Dreikreisplattensporen} and the \textit{Stuhlsporen} we have to look to the Germanic territory. According to Jahn, the development of the plates of \textit{Stuhlsporen} into a propeller shape can be placed in the 1st century AD. The early \textit{Stuhlsporen} have a geographical focus in the southern Elbe region and in Bohemia.\textsuperscript{1483} A close parallel to the two propeller-shaped spurs found on the Kops Plateau comes from Haltern, and is described as Germanic.\textsuperscript{1484} Just as this piece from Haltern the two spurs from the Kops Plateau have a slightly bent bronze plate widening into two wings. The plate itself is rather thick, and pierced in the middle and at the ends of the propeller shape. In the middle the iron thorn rested on a circular joint. The excavation context does not provide a secure date for these pieces on an individual level, but they were found outside the fort in a presumed stable complex. A spatial analysis of various find categories indicates

\begin{thebibliography}{99}

\bibitem{1479} Luckiewicz & Schönfelder 2008, 199, n. 90.
\bibitem{1480} Pieta 2010, 303-306, esp. fig. 129: 7, 9. Pieta’s typology is primarily based on material recovered from findspots in modern-day Slovakia.
\bibitem{1481} Find nos 382/178 and 350/293. The former has been published as such by Van Enckevort and Zee (1999, 200, fig. 5) and by Van Enckevort (2004, 112, fig. 8).
\bibitem{1482} Find nos 361/073 (fig. 4a) and 397/062 (fig. 4b). The former has been published as such by Van Enckevort & Zee (1999, 200, fig. 5) and by Van Enckevort (2004, 112, fig. 8).
\bibitem{1483} Jahn 1921, 22-24.
\bibitem{1484} Müller 2002, 187, no 513, pl. 46.
\end{thebibliography}
that the finds from this complex mainly belong to the Augusto-Tiberian phase.\footnote{Beijaard & Polak 2017, 37-40, 43, figs 9-10. See also Willems & Van Enckevort 2009, 42.}
The same date applies to the parallels from across the Rhine.

The equally Germanic Dreikreisplattensporn appears to have a more diverse background. This type with a plate consisting of three circular elements joined together has received more attention than the propeller-shaped Stuhlsporn. Jahn described them in basis as a subgroup of the Stuhlsporen\footnote{Jahn 1921, 29-31.}, because of the way the thorn is fitted onto a ‘stool’ on the central circle. The outer circles contained the rivets to mount the spur onto leather. These ‘three-circled’ spurs are now more commonly treated as one separate category, although Völling makes a further distinction between Dreikreisplattensporen and Stuhlsporen mit kreisförmigen Nietplatten.\footnote{Völling 1992, 395-396; 2005, 175-180. The difference between the two lies in the three circles being directly joined together in Stuhlsporen mit kreisförmigen Nietplatten, whereas the early Dreikreisplattensporen shows connecting sections between the circles. Compare Luckiewicz 2009, 349-351, fig. 6, with list 6. Here the term Dreikreisplattensporn includes Völling’s Stuhlsporen mit kreisförmigen Nietplatten.} The origin of the Dreikreisplattensporn seems to differ from that of the propeller-shaped Stuhlsporn. The occurrence of rather thin, delicate bronze spurs in early to mid-Augustan graves in Treveran territory has led to the assumption that Dreikreisplattensporen originated in the Moselle region.\footnote{Łuckiewicz 2009, 349-350.} From there, they supposedly moved northeast, to the region around the rivers Saale and Elbe (Central Germany) where they developed a more massive and less delicate appearance. In this shape, they appear to have found their way into the Lower Elbe region. Völling suggests that the latest spurs in this tradition are products of contact between the Elbgermanic and the Celtic cultural regions.\footnote{Völling 2005, 180.}

At least one of the spurs found on the Kops Plateau belongs to those later Dreikreisplattensporen (fig. 49d).\footnote{Find no 382/178.} A potentially second Dreikreisplattensporn is too heavily damaged to be definitively classified, but the central circular thorn plate showing concentric grooves strongly suggests that this spur belongs to the same category (fig. 49e).\footnote{Find no 350/293.} The plate is considerably thinner than that of the later Dreikreisplattensporn, in line with the earlier examples of the Saale-Elbe group.\footnote{Compare the spurs found at Goeblingen-Nospelt (grave B), Thür (grave 7), Großromstedt (Bronzekesselsgraben 1926) and Schkopau (grave 50). They have been dated to the early-mid-Augustan period. See Völling 1992, 396-198, fig. 9-14; 2005, 176-177, pl. 46-47.} Considering these similarities, the two spurs can be dated in the late Augustan-early Tiberian period (c. AD 1-20), with the damaged spur possibly being slightly older (c. 20 BC – AD 20).\footnote{Cf. Völling 2005, 178, 180; Łuckiewicz 2009, 350.}

It can be concluded that the Stuhlsporn and Dreikreisplattensporn from the Kops Plateau have an Elbgermanic association. In the cemetery at Schkopau (near Leipzig) a grave inventory contains one of each type. The grave is dated to the late Augustan-early Tiberian period.\footnote{Schmidt & Nitzschke 1989, 33-34, grave 175.} When findspots of Dreikreisplattensporen and the Stuhlsporen are mapped out, it becomes clear that both categories are concentrated in the basin of the river Elbe, although it must be noted that the Dreikreisplattensporen are notably widely distributed.\footnote{They have not only been found in Germany, but also in the Netherlands, Jutland, Poland and Austria. Luckiewicz 2009, 349-350, fig. 6.}

The Elbe region was home to tribes such as the Chatti, Hermunduri and Suebi. It may therefore be assumed that the presence of these types of spurs points at Elbgermanic men on the Kops Plateau. In view of the dating of similar finds
in the Elbgermanic region, their presence can be dated to the Augusto-Tiberian period. This would fit the suggestion by Saddington that when 40,000 Germanic tribesmen, among them Sugambri and Suebi, were transferred to the left bank of the river Rhine, probably in 8 or 7 BC, new auxiliary regiments for the Roman army were levied, to draw off military active men. One of these units might have consisted of Suebian cavalrmen.1496

*Dreikreisplattensporen* as well as *Stuhlsporen* were fastened by mounting them directly on a piece of leather with two or more rivets, probably straps that could be fastened around the footwear. Metal fittings of such straps have also been found on the Kops Plateau. A small buckle and a T-shaped fitting with rivets, both made of bronze, were found together with a spur with a riveted plate (fig. 49f).1497 Although the spur cannot be precisely classified because of the damaged outer ends, it certainly belongs to the general riveted type. It is likely that it has a Germanic origin, parallel to the equally riveted but considerably smaller *Dreikreisplattensporen* and *Stuhlsporen* discussed above. On account of the available contextual information the spur and fittings probably date to the Augusto-Tiberian period.1498

Furthermore, three bronze ring junctions, of which one holds three and the other two hold each two strap junctions, have in the past been interpreted as fittings of drinking horns,1499 which have similar dimensions, in the sense that they are smaller than most of the ring junctions belonging to horse gear. But the preserved metal fittings of drinking horns, which stem predominantly from a Germanic cultural context, are not similar to the three mentioned ring junctions.1500 Instead, the examples from the Kops Plateau resemble strap junctions which have been discovered in graves within the Harsefeld cemetery, near Stade in northern Germany, together with bronze spurs and other small bronze fittings.1501 These finds have been reconstructed as the metal fittings of footwear in the tradition of Roman cavalry sandals.1502 Tellingly, one of the Kops Plateau junctions comes from the same context as one of the *Dreikreisplattensporen* type.1503 It seems therefore better to interpret the ring junctions found here as part of the contraption to fasten spurs mounted on leather around one’s footwear. Another bronze fitting from the Kops Plateau stands out for its uncommon decorative scheme of diagonals and dots. Considering the similar decoration of some of the strap junctions from Harsefeld, this fitting can also be added to this re-identified group of spur strap fittings.1504 Following the date for the Elbgermanic finds, the group as a whole can be dated to the period of roughly 50 BC-AD 50.1505 Since three of the four fittings from the Kops Plateau were surface finds, there is no relevant context information. Still, the proposed date range includes those of the Germanic spurs already discussed above. Together they allow for an association with Suebi or other Elbgermanic cavalrmen stationed on the Kops

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1496  Cf. Saddington 1982, 155. Saddington includes the Sugambri among the tribes who had previously surrendered to Tiberius, but Cassius Dio (55, 6) explicitly states that this tribe was not included. Furthermore, the surrender seems to have been in 8 rather than 9 BC. See Polak & Kooistra 2013, 407.
1497  Find no 411/170.
1498  This is indicated by fragments of Oberaden 83 and Dressel 2/5 amphorae, handmade pottery and an Arretine Haltern 21 flagon found together with the bronze spur and fittings (find no 411/170).
1499  Find nos 306/018, 382/123 and 383/202. Van Enckevort & Zee 1999, 200, fig. 5. In the mentioned illustration, no 382/123 is not depicted.
1500  E.g. Wegewitz 1994, 45-46, fig. 46, 160, fig. 206, 163, fig. 210; Andrzejowski 2002, 315, fig. 2.
1501  Wegewitz 1994, 150-151, fig. 150, 156-158, fig. 201-204.
1502  Wegewitz 1994, 151.
1503  Find nos 382/123 (junction) and 382/178 (spur).
1504  Find no 413/014. Cf. Wegewitz 1994, 156-158, fig. 201-204.
1505  Wegewitz 1994, 147-163. The decorated fittings were found together at Harsefeld with a fibula datable to the first half of the 1st century AD.
Plateau in Roman service at the close of the 1st century BC.\textsuperscript{1506} Both literary and archaeological sources suggest that Germanic contingents from what is now Central Germany served with the Roman army already in the late Republican and Augustan period.\textsuperscript{1507} The men attested on the Kops Plateau may well have belonged to these contingents.

Bunnik-Vechten

A propeller-shaped piece of bronze found at Bunnik-Vechten bears strong resemblance to the Elbgermanic \textit{Stuhlsporen} discussed above (fig. 49c).\textsuperscript{1508} An exact parallel has not been found, but the slightly bent propeller shape, the remnants of rivets in the outer ends and the small aperture that once held the probable iron goad, point in the direction of the Elbgermanic region. Deviant from the \textit{Stuhlsporen} as found on the Kops Plateau are the jagged circular thorn plate and the large dimensions. Unfortunately, the information available on the find circumstances cannot help in dating this piece more securely.\textsuperscript{1509} Nevertheless, the presence of this spur at Vechten could indicate that Elbgermanic men were also present at Vechten around the beginning of the 1st century AD.\textsuperscript{1510}

Other types of riding spurs

Xanten-pre-colonia

A second spur from this site published by Lenz stands out because of its unparalleled twisted body and its fastening method, for the outer ends are flattened and pierced (fig. 50).\textsuperscript{1511} This particularity of the outer ends is most of all known from pieces recovered from Roman Republican contexts in Spain and the south of France\textsuperscript{1512}, but also from a 1st-century iron spur recovered from the Vindonissa \textit{Schutthügel}\textsuperscript{1513} and from at least two spurs found in Israel and dated to the time of the Jewish War.\textsuperscript{1514} In contrast to these examples, the spur from Xanten has pierced outer ends that are bent outwards and are thus not aligned.

\textsuperscript{1506} Cf. Van Enckevort 1997, 561: here the spurs and shoe fittings are brought in connection with Germanic \textit{Volksaufgebote} taking part in Germanicus’ expeditions of AD 15 and 16. I propose a somewhat earlier date and consequently different historical setting.
\textsuperscript{1507} Alföldy 1968, 78-79; Schierl 2013, 91, n. 73. See also the militaria with a Germanic association at Woerden, p. 201-202 and p. 215.
\textsuperscript{1508} No f 1996/1.62b (RMO).
\textsuperscript{1509} The object was found during the 1927 excavations. It is only noted that it was unearthed in 'trench 1' ('\textit{Grep 1}'). Pers. comm. H. Pauts (registrar RMO).
\textsuperscript{1510} The excavation trench mentioned in the previous note was located in an area with predominantly pre-Claudian finds (Zandstra & Polak 2012, fig. 25, label ‘1927’; Polak 2014b, fig. 12b, group ‘1936/1937 other’).
\textsuperscript{1511} Lenz 2006, no 447.
\textsuperscript{1512} Feugère 2002, 80, 86-87, fig. 9.16; Quesada Sanz 2005, 133, fig. 36.
\textsuperscript{1513} Unz & Deschler-Erb 1997, 51, no 1963, pl. 69.
\textsuperscript{1514} Stiebel 2014, 100-101, nos 112-113.
with the body of the spur. It can be questioned whether this helped to keep the spur securely in place.

Contextual data allows the spur from Xanten to be dated to the pre-Flavian or possibly the Vespasianic period.\footnote{1515} It is tempting to see a relation between this spur and earlier mentioned southern European regions, because gravestones for horsemen of the 	extit{ala Vocontiorum} have been found near Xanten and neighbouring Kalkar.\footnote{1516} The unit had originally been recruited among the Vocontii, a tribe from the eastern bank of the river Rhône, in the southeast of France. Opinions differ as to when the unit was stationed at or near Xanten. Alföldy thinks the cavalry unit was there from about AD 89 to 122, but Krier proposes an earlier, pre-Flavian date for the relocation of this cavalry unit from Soissons (France) to the Lower Rhine.\footnote{1517} A pre-Flavian date would fit the spur found on the site of the later colonia.

\section*{VI.7 Summary}

When taking stock of the 1st-century militaria found at military sites along the Lower Rhine, several non-general, ‘indicative’ militaria come to the fore. It should be remembered that the approach was selective. The findings will be summarized in the following section, guided by two tables. But first, as a point of reference, an overview of the attested units per site will be presented (table 16).

\subsection*{VI.7.a Indications for legionary and auxiliary forces}

Since weapons and other military equipment appear to have been largely multi-purpose and not as restricted to specific units as once was thought, it is difficult to definitively appoint a particular object to a specific military unit or section. Within the framework of this research, there are only four possible exceptions so far (cf. table 17, first two columns). The first is the armguard discovered at Till-Steincheshof. Armguards are in principle associated with legionary soldiers. Therefore, this piece may, but not yet for certain, indicate the presence of a former legionary soldier in the Flavio-Hadrianic period, presumably serving as a member of the 	extit{cohors II civium Romanorum equitata}. At the same time, it has been listed as one of the indications for infantry, to be summarized in the following section, for cavalrymen will not have guarded themselves with armguards because of their impracticality for horsemen.

A second, even more tentative indication for the presence of legionary forces is a group of sling bullets from Vechten. If the best preserved sling bullet from Vechten indeed shows the text \textit{l.viii}, it may refer to the \textit{legio VIII Augusta}, formerly known as \textit{Gallica}. This would suggest the presence of at least one member of this legion at Vechten. Unfortunately the find context could not give a date for these pieces, but other finds of inscribed sling bullets suggest a very early date, most likely pre-Augustan. It is known that the legion was in Illyria in AD 14, but its whereabouts before that remain largely obscure.\footnote{1518} It appears not to have operated in the northwestern provinces, apart from participating in campaigns against Belgic and Germanic tribes under Caesar’s command in the 50s BC.\footnote{1519} Perhaps members of the Eighth Legion reached the site of Vechten at one of these – early – occasions. The most likely occasion seems to
<table>
<thead>
<tr>
<th>Findspots / military sites</th>
<th>Units attested by graffiti and militaria</th>
<th>Units attested by monumental inscriptions, brick stamps, literary sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remagen</td>
<td>cohors VIII Breucorum</td>
<td>cohors II Varcianorum eq cR pf</td>
</tr>
<tr>
<td></td>
<td>cohors I Thracum</td>
<td>cohors I Flavia Hispanorum eq</td>
</tr>
<tr>
<td>Bonn</td>
<td>cohors Seleucensium</td>
<td>legio I (Germanica) legio XXI Rapax ala (Tungrorum) Frontoniana</td>
</tr>
<tr>
<td></td>
<td></td>
<td>cohors I Thracum? ala Pomponiani ala Longoniana</td>
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<tr>
<td></td>
<td></td>
<td>cohors V Asturum</td>
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<tr>
<td></td>
<td>cohors II Varcianorum eq cR pf</td>
<td>legio XXI Rapax legio I Minervia</td>
</tr>
<tr>
<td></td>
<td>cohors I Flavia Hispanorum eq</td>
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<tr>
<td>Cologne-Alteburg</td>
<td></td>
<td>classis (Augusta) Germanica</td>
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<tr>
<td>Dormagen</td>
<td></td>
<td>legio I - vexillatio</td>
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<tr>
<td></td>
<td></td>
<td>ala (Indiana)? ala Noricorum?</td>
</tr>
<tr>
<td>Neuss</td>
<td>legio I (Germanica) legio V Alaudae</td>
<td>legio VI Victrix</td>
</tr>
<tr>
<td></td>
<td>ala Parthorum veterana</td>
<td></td>
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<tr>
<td></td>
<td>legio XX Valeria Victrix</td>
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<tr>
<td></td>
<td>legio XVI (Gallica)</td>
<td></td>
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<tr>
<td></td>
<td>ala Gallorum Picentiana</td>
<td></td>
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<tr>
<td></td>
<td>cohors III Lusitanorum eq?</td>
<td></td>
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<tr>
<td>Krefeld-Gellep</td>
<td></td>
<td>ala Afrorum? ala Sulpicia cR</td>
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<td></td>
<td></td>
<td>cohors II Varcianorum eq cR pf</td>
</tr>
<tr>
<td>Moers-Asberg &amp; M-Lauwersfort</td>
<td>cohors Seleucensium</td>
<td>ala Moesica</td>
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<tr>
<td></td>
<td>ala I Tungrorum Frontoniana</td>
<td></td>
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<tr>
<td>Xanten-Vetera I</td>
<td>legio V Alaudae</td>
<td>legio XXII Rapax</td>
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<td>legio I (Germanica)</td>
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<td>legio V Alaudae</td>
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<td>legio VI Victrix</td>
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<td>legio XXI Rapax</td>
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<td>legio XV Primaetia</td>
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<td>Xanten-Alte Rhen</td>
<td>legio X Alaudae</td>
<td>legio I Adutrix</td>
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<td></td>
<td></td>
<td>legio X Gemina</td>
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<tr>
<td>Xanten-pre-colonia</td>
<td>(vexillatio) legio I?</td>
<td>ala Noricorum</td>
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<td></td>
<td></td>
<td>ala Afrorum</td>
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<td></td>
<td></td>
<td>ala Vocontiorum</td>
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<td>Atelkaikar</td>
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<tr>
<td>Tilt-Steinheshof</td>
<td>cohors II eq cR pf?</td>
<td></td>
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<tr>
<td>Herwen-Bijlandse Waard</td>
<td>(vexillatio) legio I?</td>
<td>cohors II eq cR pf?</td>
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<tr>
<td>Nijmegen-Kops Plateau</td>
<td>legio VIII Augusta</td>
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<td>legio I G-</td>
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<tr>
<td>Nijmegen-Hunenberg</td>
<td>legio X Alaudae</td>
<td>legio II Adutrix</td>
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<td></td>
<td></td>
<td>legio X Gemina</td>
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<td>Nijmegen-Museum Kamstraat</td>
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<td>Arnhem-Meinerswijk</td>
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<td>Kasteren</td>
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<tr>
<td>Maurik</td>
<td>cohors II Thracum eq</td>
<td>cohors II Hispanorum eq</td>
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<tr>
<td>Bunnik-Vechten</td>
<td>legio VIII Augusta</td>
<td>cohors I Classica?</td>
</tr>
<tr>
<td></td>
<td>cohors I Flavia Hispanorum eq</td>
<td>cohors II Brittonum m eq?</td>
</tr>
<tr>
<td>Utrecht-Dompelen</td>
<td>cohors II Hispanorum pf</td>
<td></td>
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<tr>
<td>Utrecht-Hoge Woerd</td>
<td>cohors I Thracum</td>
<td>cohors XV Volunteerorum cR</td>
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<td></td>
<td>cohors I Classica pf</td>
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<tr>
<td>Woerden</td>
<td>cohors XV Volunteerorum</td>
<td>cohors XV Volunteerorum</td>
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<tr>
<td>Bodewegren</td>
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<tr>
<td>Zwammerdam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alphen aan den Rijn</td>
<td>cohors VI Breucorum</td>
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<tr>
<td>Leiden-Roomburg</td>
<td>cohors XV Volunteerorum</td>
<td>cohors XV Volunteerorum</td>
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<tr>
<td></td>
<td>cohors I Luciusium Hispanorum eq</td>
<td></td>
</tr>
<tr>
<td>Valkenburg-fort</td>
<td>cohors III Gallorum eq</td>
<td>cohors III Thracum eq pf</td>
</tr>
<tr>
<td>Valkenburg-Marktveld &amp; V-Veldzicht.</td>
<td>cohors II Thracum eq</td>
<td>cohors III Thracum eq pf</td>
</tr>
<tr>
<td>Velsen 1 &amp; 2</td>
<td>cohors I Flavia Hispanorum eq</td>
<td></td>
</tr>
<tr>
<td>Kekerdom/Millingen (river finds)</td>
<td>cohors XV Volunteerorum</td>
<td>cohors I Luciusium Hispanorum eq</td>
</tr>
<tr>
<td>Heteren-Driel &amp; Doorwerth (river finds)</td>
<td>cohors I Flavia Hispanorum eq</td>
<td>cohors I Luciusium Hispanorum eq</td>
</tr>
<tr>
<td>L. Rhine area (river finds: helmets and shield bosses)</td>
<td>n.a.</td>
<td>n.a.</td>
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</tbody>
</table>
be an incursion into Menapian territory in 53 BC. Although the bullet could not (yet) be dated securely, the discovery of inscribed sling bullets at Vechten remains unique for the northwestern provinces and may hold interesting clues regarding the earliest Roman presence in the Low Countries.

As for a relatively secure auxiliary association, this can here only be assumed for hexagonal shields. Fragments of such shields have been identified at Nijmegen-Kops Plateau and Velsen 1. In both cases the fragments can be dated to the pre-Flavian period. It has been argued that hexagonal shields were probably used by auxiliary cavalrymen, possibly with a Celtic background. For both sites it was already assumed that at least part of the garrison was constituted by auxiliary soldiers.

VI.7.b Indications for infantry or cavalry

Indications for infantry

Infantry units made up the bulk of the Roman army. Militaria related to infantry forces may therefore be assumed as default finds for practically all sites. Cavalry units, however, are less numerous and therefore statistically less likely to be present on a random military site. Nevertheless, research has shown that practically all of the military sites on the Lower Rhine have yielded horse gear and related objects (cf. table 17), but horse gear could in principle also have been used by officers who were allowed to use horses for transportation, or by military personnel to equip pack animals. Some sites stand out because relatively high numbers of horse gear or horse-related finds have been found there. Other sites have yielded specific pieces of horse gear that can be related to (auxiliary) cavalrymen of various origins (cf. table 18).

The reason why certain indications for the presence of infantry soldiers are included is that they can be closely dated or have a specific ethnocultural association. For the legionary fortresses of Bonn, Neuss and Vetera I evidence for the pre-Flavian presence of infantrymen is rather obvious, but for other sites it offers more insight. At Moers-Asberg, Xanten-Vetera I, Xanten-pre-colonia, Nijmegen-Kops Plateau, Woerden, Zwanmerdarm, Alphen aan den Rijn, Valkenburg and Velsen 1 pre-Flavian markers for the presence of infantry have been found.

For Moers-Asberg, it seems to corroborate the stationing of members of the cohors I Seleucensium, for Woerden the presence of members of cohors XV Voluntariorum, whereas those from Valkenburg can be connected with infantry members of the cohors III Gallorum equitata.

For Zwanmerdarm it is suspected that members of the cohors XV Voluntariorum were present here as well. The garrison of Alphen aan den Rijn in the Flavian period was the cohors VI Breucorum. It may now be assumed that an infantry unit was stationed here in the preceding pre-Flavian period as well.

The pre-Flavian marker for infantry at Krefeld-Gellep comes from the battlefield and is thus to be connected with a member of the conglomerate of legionary and auxiliary troops sent here to suppress the Batavian Revolt, or with the enemy forces. Legionary as well as auxiliary forces were also stationed at Velsen, probably simultaneously. They certainly included infantry soldiers. Whether the Kops Plateau at Nijmegen housed infantry and cavalry simultaneously or

| Table 16 | Attested units, listed per findspot or military site in the Lower Rhine area. A unit’s name in red indicates a pre-Flavian date, in blue Flavio-Trajanic, and in black generally 1st-century AD. cR: civium Romanorum, eq: equitata, m: milliaria, pf: pia fidelis. For the empty cells unit indications are lacking. |

1520 Cf. Caes. BGall. 6.5-6.
rather consecutively is not clear, but infantry is evidenced here, either as part of legionary or auxiliary forces.

Till-Steincheshof yielded the only Flavian indication for the presence of infantry, namely an armguard fragment that may well have been used by a member of the cohors II civium Romanorum equitata, which is thought to have occupied the fort at Steincheshof in the later 1st and/or early 2nd century AD.

Indications for cavalry

Finds indicative of the presence of cavalry are more numerous, because they are more specific and exclusive. It must be underlined that cavalry is not per se of an auxiliary character, it can also be part of legionary forces. Nevertheless, it is very likely that especially uncommon horse gear elements were used by auxiliary cavalrymen with various ethnocultural backgrounds, but in most cases this cannot yet be definitively argued. An exception is made for hexagonal shields, which are assumed to have been used explicitly by auxiliary troops.1521

Most of the indications for cavalry listed in this chapter consist of exotic horse bits and riding spurs, which primarily date to the pre-Flavian period. They are recorded for Neuss, Krefeld-Gellep, Moers-Asberg, Xanten-Vetera I, Xanten-pre-colonia, Nijmegen-Kops Plateau and Bunnik-Vechten. The Kops Plateau stands out for the high number of horse gear in general, especially of horse bits.1522 Xanten-Alte Rhein, Nijmegen-Hunenber, Kesteren, Utrecht-Hoge Woerd, Leiden-Roomburg and Velsen have not yielded conspicuous horse bits or riding spurs.

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1521 See the section on indications for legionary and auxiliary forces, p. 255-257.
1522 See n. 1344.
spurs but other finds that are indicative for cavalry. Only finds from Xanten-pre-colonia, Bunnik-Vechten and Leiden-Roomburg possibly date to the Flavian period.

Remarkably, Valkenburg is lacking in this overview, although a cohors equitata is attested for both the pre-Flavian and the Flavian period and excavations have yielded a considerable amount of finds. Perhaps the mixed nature of the unit reduced the relative number of outstanding cavalry equipment among the finds. Two cohortes equitatae were the garrison of the fort at Remagen, but this site is completely lacking in this chapter. This is due to the small number of finds recovered from Remagen in general. Excavations at Bonn, where at least one ala was stationed, have probably yielded far more material, but these finds are not well published or accessible. The presence of two alae is suspected at Dormagen, but could not yet be proven.

Cavalry compared to infantry

The cavalry indications included in this overview stand out for their uncommon, exotic character and predominantly date from the pre-Flavian period. They seem to concentrate in the eastern part of the Lower Rhine area. Because of their early date and exotic nature, it is suggested here that they might well stem from non-local but also non-Mediterranean cavalrymen, recently recruited into ethnic alae.

Still, those sites in the east of the research area where especially cavalry is attested, have also yielded pre-Flavian infantry indications. For the legionary sites Neuss, Xanten-Vetera I and Nijmegen-Hunerberg this occurrence can be
explained by auxiliary cavalry units accompanying the legionary forces stationed on these sites. Perhaps this explanation may be extended to the earliest phase of Bunnik-Vechten. A similar occupation goes for Velsen and perhaps also Nijmegen-Kops Plateau, although the latter may also have had consecutive units of legionary and auxiliary cavalry units. Given the high number of exotic cavalry equipment on the Kops Plateau, it is highly likely that one or more alae were stationed here. At Krefeld-Gellep and Xanten-Alte Rhein legionary as well as auxiliary forces were simultaneously but more temporarily present, namely during the Batavian Revolt.

For Moers-Asberg the presence of both infantry and cavalry indications is explained by the consecutive garrisons constituted by first a cohors and then an ala. The Flavian marker for cavalry from Leiden-Roomburg may be connected to a cohors equitata. For Xanten-pre-colonia, Kesteren and Bunnik-Vechten it cannot be stated here whether the cavalry indications belonged to members of a cohors equitata or an ala.

V1.7.c Geographical indications

Italy

The only piece of military equipment or horse gear embodying a connection with Italy is a hackamore from Krefeld-Gellep (cf. table 18). It probably dates from the Flavio-Trajanic period, but it cannot be ruled out that it was lost during the Batavian Revolt. Since legionary as well as auxiliary forces fought at Krefeld-Gellep during this episode, this marker for a ‘Campanian’ connection may well be related to a legionary cavalryman or perhaps a legionary or auxiliary officer who commanded the troops on horseback. Most of the higher officers were traditionally of Roman-Mediterranean origin. The latter association could also well be extended to the Flavio-Trajanic period, in which various mounted or partly mounted auxiliary units garrisoned the fort at Krefeld-Gellep.

Iberian Peninsula

At six military bases in the Lower Rhine region militaria or horse gear have been found that may be associated with the Iberian Peninsula. These consist of helmets, horse bits, a dagger and a shield fragment. At Bunnik-Vechten and especially Nijmegen-Kops Plateau finds from more than one category occur, strengthening the case for the presence of men from the Iberian Peninsula. All but one of the listed objects can be dated to the pre-Flavian period. The earliest piece comes from the Hunerberg in Nijmegen, which stems from the early camp on this site. It possibly identifies soldiers previously stationed in Spain who garrisoned the earliest military base on the Hunerberg in 19-16/12 BC. The latest object is a cavalry helmet from Bunnik-Vechten, which could be Flavian, although a later date has been assumed until now.

At Nijmegen-Kops Plateau as well as in Vechten there are other archaeological objects pointing at the presence of men from the Iberian Peninsula in the pre-Flavian period. The Kops Plateau seems to have received influences from the Iberian Peninsula during the whole pre-Flavian period. For Neuss the cohors III Lusitanorum is suggested to have been part of the garrison in the pre-Flavian
period. Roxan argues that this unit was partly mounted. Literature sources mention the Vascones as auxiliary forces sent to the battlefield at Krefeld-Gellep in AD 69. They were probably partly mounted and recently created by Galba. A recent levy could explain the continued use of their own, uncommon cavalry equipment. The same historical context applies to the Iberian markers from Xanten-Alte Rhein. A cavalryman of Iberian origin may well have taken part in the battle that was fought here by the Roman army against the rebellious Batavians and their allies.

Celtic region in general

In a few cases it could be established that objects had a Celtic signature, but it was not possible to narrow this further down to for example Gaulish-Celtic, British-Celtic or Alpine-Celtic. Militaria thus labelled Celtic are listed for five sites. They consist of a spur, helmets and shield fragments. With the exception of a helmet from Bunnik-Vechten, these pieces can be dated to the pre-Flavian period. They are taken to indicate the presence of auxiliary cavalrymen of Celtic origin at Xanten-pre-colonia, Xanten-Alte Rhein, Nijmegen-Kops Plateau, Bunnik-Vechten and Velsen 1. For the Kops Plateau an additional indication for infantry with a Celtic background is listed. Only for Xanten-pre-colonia a specific unit can be suggested in connection, although the evidence is ambiguous. A gravestone for a member of the *ala Augusta Vocontiorum*, a cavalry unit originally levied in Southeast Gaul, has been found near Xanten, but two cavalrymen serving in the same unit appear to have been buried near Kalkar.

Gaul in general

Under this heading only one occurrence is listed in the table. This refers to a riding spur from Xanten-pre-colonia, tentatively dated to the second half of the 1st century. The idea has been put forward that it may be related to cavalrymen originating from Southeast Gaul, serving the above-mentioned *ala Augusta Vocontiorum*. This unit had originally been levied in that region, but definitive evidence for it having been stationed on the site of the later colonia is lacking. A station at Kalkar seems, so far, more likely.

Northern Gaul or nearby Germania

Militaria and horse gear with a North Gaulish or Germanic label, which could also be described as ‘local’ or ‘regional’, are relatively high in number. This is mainly due to a large group of horse bits classified as Treveran from Nijmegen-Kops Plateau and Bunnik-Vechten. Based on data from the Treveran region and on the general context dating of the Kops Plateau, the bits of the ‘Treveran’ type have been dated to the pre-Flavian period. Men originating from the Treveran territory are attested as members of various Gaulish alae in the early Imperial period, but the Treveri also had a cavalry unit of their own, the *ala Treverorum*. From literary sources it is clear that the *ala Treverorum* operated

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1523 Alföldy 1968, 66. The actual number (III) is lacking in the inscription from Neuss in which a cohors Lusitanorum is mentioned (BRGK 40, no 244). Roxan (1973, 531) points out that especially with first cohortes the numeral was omitted in inscriptions. It thus seems more likely to connect this inscription to a veteran member of the *cohors I Lusitanorum* instead of the *cohors III Lusitanorum*. Either way, a cohors Lusitanorum seems to have been present at Neuss in the Julio-Claudian period.
1524 Roxan 1999, 264.
1525 See n. 1516.
1526 Because of the large number, it was decided to use one larger icon in the table to indicate their presence on the Kops Plateau.
on the Lower Rhine between c. AD 21 and 70, but it is not known which fort it garrisoned. Considering the high number of ‘Treveran’ horse bits in Nijmegen, the Kops Plateau could be a serious candidate.

The other objects listed under the heading North Gaulish or Germanic are less certain. Five of these are the helmets with face masks and hair imitation discovered at Xanten-Alte Rhein, Nijmegen-Kops Plateau and Bunnik-Vechten. The one from Bunnik-Vechten is the only Flavian find in the list. If the suggestion that the *ala Treverorum* was stationed on the Kops Plateau in the Claudio-Neronian period holds true, this would strengthen the argument against a Batavian association commonly held for these helmets. Two further helmets have been named ‘Batavian’ because of the alterations applied to them, but it is not certain that they were used by men from the region. The alterations could have been simply functional, to adjust them for the rank or function of the user, for instance a signifer. One helmet has been found on the Gellep battlefield, the other on the Kops Plateau at Nijmegen. Both can be dated to the pre-Flavian period. Finally, three long cavalry swords recovered from the old river bed near Xanten have elements that remind of pre-Roman, Celtic swords. On their own the swords are difficult to date. They are in any case to be regarded as non-Roman militaria, for now best grouped with objects of probable local or regional stock.

Northern Germania and Scandinavia

In general, militaria with Germanic traits from the Lower Rhine region can be associated with either the enemy, especially in the Augusto-Tiberian period (e.g. Usipetes and Tencteri\(^1\)) or with men of Germanic descent serving in the Roman army (e.g. Ubii\(^2\)), or both (e.g. Batavi). Several scenarios should thus be considered in explaining the presence of 1st-century Germanic militaria in Roman military camps in the Lower Rhine region.

On various sites typical militaria point to the North Germanic and Scandinavian region: shield components, riding spurs and a single-edged sword. Pre-Flavian pieces with an Elbgermanic signature have been found at Xanten-Vetera I, Nijmegen-Kops Plateau, Woerden and probably also at Krefeld-Gellep, Xanten-Alte Rhein, Kesteren-De Woerd, Bunnik-Vechten and Velsen 1. A possibly Flavian piece has been identified at Nijmegen-Hunerberg. The shield elements found at Moers-Asberg and recovered from the Waal near Nijmegen and the Rhine near Doorwerth are from the 1st century, but could not be dated more closely. Strikingly, these northern indications have the widest distribution of all geographical associations recorded for the Lower Rhine area.

Most of the indications listed here can be labelled as Elbgermanic. The Elbgermanic influence may have been direct, with men coming from the north of Germania to the Lower Rhine area to serve under the colours of the Roman army. It must also be considered that these apparent Elbgermanic influences were more indirect. They might have been brought about by tribes of Elbgermanic descent who originated in the north but moved southwards during the first half of the 1st century AD and settled in southern Hessia and in Baden-Württemberg, with consent of the Roman authorities. These tribes are known as the *Oberheimgermanen* and the *Neckarsueben*. It is suspected that men from these tribes secured the Roman frontier zone and served as Germanic mercenaries in the Roman army.\(^3\) The Germanic shield handles from Krefeld-Gellep and Xanten-Alte Rhein, dated to the second half of the 1st century AD,

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1529 Weiß-König 2016, 71-73. See also Lenz-Bernhard 1990.
may have belonged to men from these groups. If, however, the finds date from
the Augusto-Tiberian period, it seems more likely to locate their former users
among the Elbgermanic groups from the Elbe-Saale region. This might apply
to the Germanic riding spurs recovered on the Kops Plateau at Nijmegen and in
Bunnik-Vechten.

As stated above, the spurs from the Kops Plateau may have belonged to Suebian
cavalrymen.1530 According to Saddington, Germanic auxiliaries already appeared
‘not infrequently’ in the late Republican period.1531 In this context he makes
reference to the relocation of Suebi and Sugambri, which probably took place
in 8 or 7 BC.1532 He thinks it is most probable that Sugambrian regiments were
created at this so-called juncture to draw off some of the militarily active among
the transferred settlers.1533 The same may hold for Suebian groups, who contrary
to the Sugambri have their origin in the Elbgermanic region. He adds that some
of the transrhane tribes are found providing auxiliary units to the Roman army
as late as Germanicus’ campaigns in AD 14-16.1534

It has further been noted that the finds from the cemeteries in the Elbe region
contain elements originating from the Treveran cultural region and also elements
belonging to the Roman military repertoire. The former can be illustrated by
the presence in Central Germany of so-called Kragenfibeln, typical for the
Treveri; the latter by for instance the presence of typically Roman shoe nails
in a Germanic settlement in that same region.1535 Literary sources tell us that
rebellious Treveri called Germanic groups for their help in 30 BC in their battles
against the Romans. These Germanic groups may well have included Suebi
from the Elbe region.1536 This alliance might have been the basis for the later
close relationship between the Treveri and Suebi, possibly resulting in men of
the two ethnic groups serving together under the command of the Roman army.
Schierl therefore proposes that the combination of finds with Germanic and
Treveran associations from the Roman camp of Dangstetten can be explained
by the joint participation of Germanic and Treveran men participating in Roman
army campaigns after their initial cooperation during the Treveran Revolt of
30/29 BC.1537 The case of Dangstetten could be extrapolated to the Kops Plateau
at Nijmegen, where indications for Elbgermanic and Treveran men have been
recognized among the finds as well.1538

Apart from the northern Elb-Germani and Neckarsuebi and other relocated
Germanic tribes from the Rhein-Weser region, another Germanic group has
been put forward as owners of specific militaria with Germanic traits. Given
the apparent concentration of Germanic shield handles in the Batavian region,
including a rural settlement at Bemmel,1539 these militaria are believed to have
belonged to the original equipment of Batavian auxiliary soldiers, originating
from Hessia. However, these elements are not known from Hessia or from

1530  See above, n. 1496.
1531  Saddington 1982, 155.
1532  Saddington (1982, 155) is of the opinion that the relocation took place in 9 BC, but it is
generally assumed that this must have been somewhat later, in 8 or 7 BC. See Polak & Kooistra 2013,
407.
1533  Saddington 1982, 155.
1534  If the region between Rhine and Elbe would have been added permanently to the Empire,
tribes such as the Frisii, Chauci and Cherusci – and by inference also the Suebi – would ‘no doubt’
have given their names to regular units. Saddington 1982, 157. See also Alföldy 1968, 79, with
reference to Tac. Ann. 1. 60; 2. 17.
1535  Schierl 2013, 89, 91.
1536  Schierl 2013, 91.
1537  Schierl 2013, 92.
1538  Elbgermanic: spurs; Treveran: horse bits.
other rural settlements in the Batavian region. For now, it is best to take a wider Germanic association in consideration for these shield components.

Finally, two chronological problems should be addressed. The first applies to a fragment of a shield found on the Nijmegen-Hunerberg. The find location in the eastern half of the Flavian fortress would favour a Flavian date to the object decorated in a Germanic style. However, considering that the other (Elb-) Germanic militaria from Nijmegen are pre-Flavian in date, as far as could be ascertained, such an early date must be considered for this piece as well. The second issue concerns the Germanic or Scandinavian single-edged sword from Woerden. In theory, a North Germanic mercenary serving in the Roman army in the fort at Woerden might have used both this sword and the Germanic shield handle unearthed there. Although the sword can be more closely dated than the shield handle, they could have been contemporary. However, the early dating of the sword in the Augusto-Tiberian period conflicts with the supposed foundation date of the fort. Even if this is as early as AD 40, the sword would predate this with at least twenty years. Most likely, the sword was in use for a longer period of time.

Balkans and Danube region

Of the objects that appear to stem from the Danubian area and the adjacent Balkans all but one are parts of horse gear or cavalry equipment. They are listed for four sites. The possibly Augustan indication from Neuss may be related to a member of the *ala Gallorum Picentiana*, which had originally a core of Picentine cavalrmen but further counted men of various Gallo-Celtic tribes among its early members. The Danubian marker from Leiden-Roomburg is a mask of a cavalry helmet, which might be Flavian, but an early 2nd-century date is also possible. The unit assumed to have garrisoned the fort at Roomburg in the early 2nd century is *cohors I Lucensium Hispanorum*. The helmet could be the evidence for the unit having been partly mounted (equitata), as many of the other Iberian cohortes. A cavalryman with an origin in the Lower Danube region who served with this originally Iberian unit may well have left the helmet mask at Roomburg.

There are two sites which have yielded militaria that point more specifically to the territory of the Thracian and Dacian peoples: Xanten-Vetera I and Nijmegen-Kops Plateau. The three finds in question all date, contextually, to the pre-Flavian period. They suggest the presence of Thracian and Dacian cavalrymen on respectively the Fürstenberg and the Kops Plateau, and an infantryman from the Lower Danube area on the Fürstenberg. All three finds have more of an auxiliary than a legionary signature. Epigraphical sources inform us that Thracian auxiliaries were stationed in the Lower Rhineland during the 1st century AD. Perhaps one or more auxiliary camps were situated in the direct surroundings of the legionary fortress Vetera I, where Thracian soldiers then might have been stationed in the pre-Flavian period. The Dacian association from the Kops Plateau is more difficult to explain. Since recruitment of Dacian men into auxiliary cohortes and alae started only in the early 2nd century, one would not expect to encounter a find with a Dacian association on the Kops Plateau.

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1450 Cf. Kemmers 2008, 94, n. 7; 95, n. 17.
Perhaps it belonged to a Dacian man who early on joined the Roman army on his own initiative.

Africa

The only association with Africa refers to a helmet from Utrecht-Hoge Woerd. It probably arrived there with an individual cavalryman who was of African origin or who had served in that region in the pre-Flavian period, possibly as a member of a (partly) mounted unit that had operated in Mauretania in the early 40s. It remains, however, unclear which unit this may have been.

Other geographical associations

Compared to the graffiti discussed in the previous chapter, the table with geographical indications comprises less separate labels. Firstly, Noricum is not attested among the militaria, probably because people from this region tapped into a strong general Celtic repertoire. The material culture of Thrace is in this respect often difficult to separate from that of neighbouring regions such as Moesia or Dacia. Thracia is therefore grouped under the combined category of the Balkans and Danube region. Completely lacking among the militaria are markers for the Greek East. Finally, and contrastingly, indications for North Germany and Scandinavia did not yet feature separately in the discussion of the graffiti. They may well have occurred there under the heading of Germania, which was combined with North Gaul.

VI.7.d Synthesis

In conclusion, a pre-Flavian date stands out for the large majority of non-Roman militaria and horse gear identified on military sites along the Lower Rhine. This is not surprising if one considers that especially at the start, shortly after recruitment or the creation of a military unit, men will have held on to their own habits, including the use of some typical weapons or horse gear. The longer they will have belonged to the Roman army, the more they will have replaced their own traditional military equipment with standard gear, readily available in their direct environment. Moreover, as stated before, the indications for auxiliary troops and for cavalry dominate. It must be remembered that this may be due to uncommon horse gear being more conspicuous. Nevertheless, their occurrence on the Lower Rhine probably indicates the presence of cavalrymen of various provenances. Among them appear to be men from the Iberian Peninsula, northern Germany and Gaul. Objects with Celtic associations could have been left by men from Gaul, but they may also have belonged to men originating from the Danubian region, including Dacia and Thrace. Men from Britain could in theory be found in this group as well, as argued in the previous chapter. Since it turned out to be difficult to appoint militaria and horse gear with a Celtic signature to sub-regions, they have been listed under one heading, in contrast with the graffiti. For all the geographical indications further goes that they include both infantry and cavalry equipment. Compared to the indications distilled from the graffiti, the evidence derived from the militaria is less pronounced and less extensive. Indications pointing to northern Germany and Scandinavia are new. They belong to the best represented groups in this survey.
VII Fibulae and dress accessories

VII.1 Introduction

VII.1.a Definition and validity

Fibulae are brooches used to fasten pieces of clothing together. They were mostly worn on the upper part of the body, which made them clearly visible to other people. In addition to their prime functional use, they are considered to have been potential markers of identity as well. As Ellen Swift puts it, dress must have been conceived as an important indicator of regional and cultural identities in the Roman world. Fibulae will have been part of this, although not necessarily nor always.

The choice of a certain fibula type and the way it was worn will probably have indicated certain aspects of identity. So-called Aucissa fibulae, for instance, are typically associated with military personnel, whereas a pair of fibulae connected by a chain characterizes female dress. Some fibula types are strongly concentrated in specific geographic regions. They will have been considered as foreign when they appeared outside their regions of origin, signalling that the persons who wore them had some kind of connection with this foreign region. In her article on Gaulish female clothing in the Roman period Ursula Rothe states that tribal identities were expressed through clothing. More specifically, ethnical and regional differentiation manifested itself mainly through jewellery and other decoration made from metal, and less in the shape of clothing and garments.

However, it must be noted that this is not an Empire-wide phenomenon. Furthermore, the ethno-cultural origins of several groups of people are not likely to be indicated by fibulae. Many people from North Africa and the Middle East were apparently not in the habit of using fibulae as part of their dress. This also seems to apply to people from the Mediterranean heartland of the Empire, for, with exception of the northern Alpine regions, there are hardly any fibulae from the Imperial period known from Italy. Nevertheless, there are various fibula types that can indeed be linked to specific regions. These regions may predominantly lie within the western provinces, especially the Gaulish, and even outside the Empire, such as the northern parts of Germania magna.

The premise that fibulae were used to express identity and that certain fibulae were not common but rather remained exotic and were probably worn by people as a reminder of their (remote) homeland serves as the basis for this chapter. Fibulae from military camps along the Lower Rhine will be analysed with a focus on pieces that evidence the presence of people with a connection to a specific region inside or outside the Roman Empire. Although fibulae cannot be used as the only evidence, for which Lindsay Allason-Jones explicitly warns.

1545 Swift 2011, 209.
1546 This caveat will be further discussed below. Allason-Jones 2013, 24.
1547 Heeren & Van der Feijst 2017, 340.
1548 Rothe 2010, 66.
1549 Rothe 2010, 76, n. 9.
1551 Allason-Jones 2013, 30.
they do add further pieces to the puzzle presented in this study so far by graffiti and militaria.

In contrast with the militaria, fibulae and other dress accessories in particular will reveal the presence of women on Roman military sites. Moreover, it is especially in material culture pertaining to the female sphere that traditional elements can be expected. Archaeological evidence has led to the notion that some consciously selected aspects of traditional material culture, adhering to the place of origin, were treasured and passed on by women in migrant communities. Fibulae explicitly associated with female dress are for instance thistle fibulae (Distelfibel) and collar brooches (Kragenfibel). On a gravestone for a cavalryman by the name of Silvanus, his sister Prima, who put up this monument for her brother, is also depicted. She is wearing a clothing ensemble that can be termed typically Gallic, or even more specifically Treveran. Although the gravestone is said to have been found near Xanten, and Silvanus served with the ala Vocontiorum, the inscription makes clear that brother and sister are of Treveran origin. Collar brooches of the Trier-Wincheringen subtype are part of this Treveran ensemble as depicted on gravestones from the Treveran region. When found on military sites in the Lower Rhine region, they may well have belonged to relatives of soldiers of Treveran origin stationed here, as illustrated by Prima who apparently had followed her brother into the Xanten area. This example of a Treveran woman depicted in native dress, following her male relative who was an auxiliary soldier in the Roman army, underpins the assumption that fibulae found in a military context but with an outspoken female association can nevertheless hold information about the origin of the men stationed on that site.

VII.1.b Looking for broader patterns

The number of fibulae collected in military contexts in the Lower Rhine area is vast. For the analysis of this large collection of data within the framework of the present study two main courses were followed. Firstly, in order to detect patterns in the bulk of the material, the method of correspondence analysis was chosen. Correspondence analysis is a multivariate statistical technique especially suited to trace and visualize patterns in large and complex datasets. The result of a correspondence analysis is basically an optimal mathematical ranking. The next step is to interpret this ranking archaeologically. Secondly, to get an understanding of the rare, ‘exotic’ pieces on military sites along the Lower Rhine, the data will be discussed separately later on, by looking at the fibulae present per site.

The dataset of the Brooches from the Low Countries project (hereafter referred to as BLC), which culminated in the comprehensive publication by Stijn Heeren and Lourens van der Feijst issued in 2017, served as the basis for the correspondence analysis. The underlying dataset contained 20,191 fibulae from sites in Belgium, Germany and the Netherlands. For the correspondence analysis the dataset was adjusted in consecutive steps to allow for an interpretation of the data on a manageable level. First, additional records for five sites in the research area were added to the dataset. This resulted in a dataset of 20,548 records. The next

1552 Cf. Van Driel-Murray 2009a.
1553 CIL XIII 8655.
1556 The dataset was kindly provided by S. Heeren and L. van der Feijst. It includes 1,161 records for Belgium, 2,543 for Germany and 15,141 for the Netherlands.
1557 I.e. for Remagen (Friedrich 2010), Cologne-Alteburg (Krämer 2015), Xanten-Vetera I (Hanel 1995), Bunnik-Vechten (Hendriksen 2017a and 2017b) and Utrecht-Domplein (Kerkhoven 2015).
step was to select only the fibula subtypes from military sites.\textsuperscript{1558} This resulted in a count of 3,656 fibulae. They constituted the input data for the correspondence analysis.

The data resulting from the correspondence analysis is plotted visually.\textsuperscript{1559} It showed a two-dimensional scatterplot in which the sites (in blue) and the fibula variants (in red) are visualised as points (cf. fig. 51). Sites sharing many fibula variants are positioned close to each other. The more they have in common, the closer their positions are. The most common types of fibulae are, theoretically, to be found in the centre of the distribution. The most disruptive types are located in the periphery.\textsuperscript{1560} Within the scatterplot the X-axis, or first dimension, plays a more important role than the Y-axis, or second dimension. Thus, differences on

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{scatterplot.png}
\caption{Correlation matrix of 1st-century fibula types (in red) from military sites (in blue), with a high threshold.}
\end{figure}

\par
\textsuperscript{1558} Thus excluded at this step were the fibulae from Maurik, because the presumed military nature of the site is not certain. Included, on the other hand, were the fibulae from Haltern, serving as a reference point for early patterns.

\textsuperscript{1559} Available at https://www4.rgzm.de/adp/. Correspondence analysis works with units and types. In this case, the fibula variants are the units in the analysis, and the sites or findspots are the types.

\textsuperscript{1560} Numerical data provided along with the diagram (‘diagnostics’) indicates which sites and fibula variants were the most important in the shaping of the scatter plot.
the horizontal axis are more important than those on the vertical axis. In analyses of archaeological data the X-axis often represents time.

It was immediately clear that chronology was the main determinant responsible for the distribution as shown by the first correspondence analysis. The initial distribution image was dominated by findspots of which the main occupation phases postdated the 1st century AD. For the fibulae linked to these sites a late date was already assumed. It was thus decided to eliminate as much as possible fibula types that were generally dated to the 2nd century and later. This should get the distribution of 1st-century fibulae, the main aim of this exercise, better into view. Further, it was decided to apply high threshold values. This resulted in a distribution in which types 45a1 and 30d were the main contributors to the X-axis and 30d and 30d3 to the Y-axis (fig. 51). These fibulae all belong to groups recognized by Heeren and Van der Feijst as the most common 1st-century types on the military sites in the Lower Rhine area. At the level of the findspots, the strongest contributors to the overall distribution are Neuss and Nijmegen-Hunenberg, followed by Nijmegen-Kops Plateau.

It may seem obvious that the strongest contributors are also the most numerous within the dataset, but in correspondence analysis this is not necessarily the case. A findspot with a relatively small but deviant fibula assemblage may also have a great impact on the distribution pattern. A check showed, however, that indeed strongest contributors Neuss and the two Nijmegen sites had the largest data subsets. A similar conclusion can be drawn for the fibula types: main types 17, 20, 30 and 45 together represent over 60 percent of the 1st-century fibulae from military sites, with 30 and 45 clearly outnumbering 17 and 20. Type 17 are the so-called Knickfibeln, type 20 the eye fibulae, type 30 the Aucissa and Alesia fibulae and type 45 the angular wire fibulae. Heeren and Van der Feijst state that main type 45 belongs to the dominant group of regional fibulae of the Flavian period and the first half of the 2nd century, whereas 17 and 20 are part of a dominant group of regional fibulae in the pre-Flavian period. Type 30 is divided over two groups of military fibulae, namely Augustan and generally 1st-century. Subtype 30d contributes strongly to another dominant group in the pre-Flavian period, the post-Augustan military fibulae.

Main type 20, however, does not appear among the main contributors just listed. This cannot be (exclusively) explained by its subdivision into several subtypes, because this is also the case for main type 30, which is an important contributor. But compared to type 30, type 20 is present on slightly more sites. Its wider distribution, over more than 30 findspots in the dataset, has a negative effect on its contribution. Type 30, on the other hand, is attested at less sites but with some remarkably high concentrations. This causes its contribution to be higher than that of type 20.

If we look at the general image, we see a chronological sequence from left to right. Early sites as Vetera I and Velsen are positioned left of the Y-axis. These sites lack a Flavian component. On the other hand, sites with a strong or exclusively Flavian or later spectrum are positioned to the far right of the Y-axis, most notably Krefeld-Gellep, Utrecht-Hoge Woerd and Woerden. Bunnik-Vechten is pre-eminently a site where the whole 1st-century range of fibulae is

1561 This deselection list consisted of BLC types 46-52 and 58-98.
1562 Respectively sites with at least 8 fibulae and fibula types occurring at least 5 times.
1563 Cf. Heeren & Van der Feijst 2017, 279-293.
1564 Heeren & Van der Feijst 2017, 279-293.
attested, and that is why the site sits close to the centre of the plot, near the origin of the coordinate system.

Two sites are conspicuous because of their unexpected position. Most notably, Neuss does not behave like Vechten, although there is evidence here for military occupation for the whole 1st century AD. Instead, Neuss is positioned extremely in the top left corner. Judging by the main contributors to the distribution, Neuss must have yielded a strong concentration of early fibulae, resulting in an underrepresentation of the later occupation phases. A more detailed look at the data confirms this bias. Almost 85% of the fibulae from Neuss listed in the BLC database come from the publication by Grace Simpson.1565 This report discusses solely metal objects collected during excavations executed from 1955 until 1972, in which mainly the remains of pre-Claudian fortifications west of the Koenenlager have been unearthed.1566 The other site which seems out-of-place in the graph is Haltern, which is earlier in date than Vetera I and Velsen, but is in the plot situated further to the right, closer to the Y-axis. This can be explained by the presence of two fibulae of type 45 in the collection listed for this site. They connect Haltern to a series of sites displaying an evidently later fibula spectrum, pulling Haltern to the right in the scatterplot.

A conspicuous outlier is Kalkar-Altkalkar. It owes its outlying position to type 26b, the large thistle fibula which has its origin in Gaul. It seems that for Altkalkar a connection with Gaul is especially notable, explaining its peripheral position in the lower angle of the triangular shaped matrix. With Neuss and Velsen occupying the top left corner of the triangular matrix graph, the top right corner is constituted by a cluster of four sites: Krefeld-Gellep, Woerden, Utrecht-Hoge Woerd and Nijmegen-Hunerberg. Since the latter has a particularly strong Flavian component, chronology is likely to be the main reason for this clustering. Another factor contributing to this may be the nature of the sites. The fibulae from Krefeld-Gellep come predominantly from funerary contexts, and the Utrecht-Hoge Woerd dataset here presented largely comes from the vicus.

The remaining sites plotted in the matrix are just six in number, and they encircle a cluster of diverse fibulae types. To see whether more patterns can be observed, the threshold values of the correspondence analysis were lowered in a next step.1567 This results in a more compact graph (fig. 52) without a triangular outlay observed after the first analysis. Valkenburg-De Woerd, positioned outside the general distribution cloud in the lower right quadrant, constitutes an obvious outlier. It is strongly linked to five fibula types, of which three belong to the common angular wire brooch type 45 (i.e. variants 45a2, 45a3 and 45a4). The other two, variants 31h and 33c1, are types of a supra-regional character without a clear region of origin. They were probably produced in urban workshops in Gaul. The deviant position of Valkenburg-De Woerd may be explained by the nature of the site, as a vicus and not a military installation, in combination with the relatively late date of the types recorded here.

Other than Valkenburg-De Woerd’s outlying position and a general chronological trend from bottom left (early) to top right (late), no new clear patterns emerge. The matrix broadly confirms the patterns recognized by Heeren and Van der Feijst, namely that early military and early regional types gradually make way for supra-regional types. It further seems that the fibulae of various categories, either military, regional or more exotic, are distributed fairly evenly along the Lower Rhine, that is to say, without clear concentrations of particular categories at specific sites, other than for chronological reasons. But this conclusion is

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1565 Simpson 2000.
1567 Sites with at least 6 fibulae and fibula types occurring at least 3 times.
based on the analysis of the bulk of the data. The next step is to examine the fibulae per site, looking for types that thanks to earlier research have already been identified as ‘exotic’.

VII.2 Outliers among the fibula types

Fibulae that can be classified as exotic because of their foreign origin combined with a low frequency in the Low Countries in general are considered here as outliers. The choice of exotic fibulae is primarily based on the classification by Heeren and Van der Feijst, which contains a number of fibulae types deemed exotic. They have grouped the explicitly exotic fibulae from the Early Roman period (until c. AD 100) into one subset, group C6. \(^{1568}\) It comprises the types 7, 14a/b/c/e, 29, 36, 41, 42, 99c/d/f/g/j. Of this range, types 7, 99c and 99d have

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\(^{1568}\) Heeren & Van der Feijst 2017, 279.
been left out of consideration in this study, because their ethno-cultural signature was not clear enough or could not be established.

The list can be further extended with non-local types of which the date extends into the 2nd century AD. These later exotic fibulae stem from Britannia, the Danube region and Germania magna. Within the present study, the addition of fibulae originating from Gaul, especially outside of the urban centres, may be fruitful to trace mobility from Gaul to the Lower Rhine region. Finally, type 99 is a miscellaneous group with unique types, for which no exact parallels could be found. Their date and possible origin, based on similarities with other types, remain tentative. An overview of all these exotic fibulae relevant to the present study is provided in table 19, including their main equivalents in other typologies, their region of origin, whether they were worn (exclusively) by women, and their date range.

The most conspicuous of these exotic fibulae will be discussed here firstly per type, to evaluate the meaning of their presence at military sites along the Lower Rhine. Attention will be particularly paid to their origin and date. The discussion will be limited to types that have been discovered on more than one site. Unique

<table>
<thead>
<tr>
<th>(Sub)type</th>
<th>Also known as</th>
<th>Origin</th>
<th>General date</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Feugère 10a</td>
<td>North Gaul (Treveran territory?) ♀</td>
<td>20 BC-AD 20</td>
</tr>
<tr>
<td>14b</td>
<td>Almgren 67-68</td>
<td>Alpine region / Danubian territory</td>
<td>AD 15-70</td>
</tr>
<tr>
<td>14c</td>
<td>Almgren 236</td>
<td>Alpine region / Danubian territory ♀</td>
<td>AD 20-100</td>
</tr>
<tr>
<td>14d</td>
<td>Almgren 69</td>
<td>Danubian territory ♀</td>
<td>AD 25-90</td>
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<tr>
<td>14e</td>
<td>Demetz: Armbrustspiralfibel II</td>
<td>Alpine region</td>
<td>AD 1-100</td>
</tr>
<tr>
<td>15</td>
<td>Feugère 13b</td>
<td>Gaul</td>
<td>10 BC-AD 30</td>
</tr>
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<td>16</td>
<td>Feugère 14a + 9b</td>
<td>Gaul ♀</td>
<td>20 BC-AD 80</td>
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<tr>
<td>20f</td>
<td>Almgren 57-61</td>
<td>Germany</td>
<td>AD 40-70</td>
</tr>
<tr>
<td>23</td>
<td>Feugère 10c</td>
<td>North Gaul (Treveran territory)</td>
<td>AD 40-100?</td>
</tr>
<tr>
<td>24</td>
<td>Feugère 14b</td>
<td>Gaul</td>
<td>15 BC-AD 50</td>
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<td>25</td>
<td>Feugère 18a</td>
<td>Gaul</td>
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<td>Feugère 16/17/19</td>
<td>Gaul ♀</td>
<td>30 BC-AD 70</td>
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<td>Riha 4.9</td>
<td>Alpine region / Danubian territory? ♀</td>
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<td>Gaul</td>
<td>10 BC-AD 50</td>
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<td>Hull T56</td>
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<td>AD 1-70</td>
</tr>
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<td>36</td>
<td>Hull T92-103</td>
<td>Britannia (chain: ♀)</td>
<td>AD 50-100</td>
</tr>
<tr>
<td>40a</td>
<td>Cosack 1979, 29-30</td>
<td>West Germania</td>
<td>AD 40-150</td>
</tr>
<tr>
<td>40b</td>
<td>Almgren Gruppe II</td>
<td>North Germania</td>
<td>AD 40-150</td>
</tr>
<tr>
<td>41</td>
<td>Feugère 30c</td>
<td>Iberian Peninsula?</td>
<td>AD 1-250</td>
</tr>
<tr>
<td>42</td>
<td>Almgren 244 / Feugère 32</td>
<td>Mediterranean</td>
<td>20 BC-AD 250</td>
</tr>
<tr>
<td>44</td>
<td>Almgren 138-146</td>
<td>North Germania</td>
<td>AD 40-200</td>
</tr>
<tr>
<td>52</td>
<td>Almgren 101</td>
<td>North Germania</td>
<td>AD 50-150</td>
</tr>
<tr>
<td>53a</td>
<td>Hull T153-158</td>
<td>Britannia (eyelet: ♀)</td>
<td>AD 60-180</td>
</tr>
<tr>
<td>54</td>
<td>Hull T143-149</td>
<td>Britannia (eyelet: ♀)</td>
<td>AD 60-180</td>
</tr>
<tr>
<td>57e2-4</td>
<td>Hull T199/T267-268</td>
<td>Britannia (eyelet: ♀)</td>
<td>AD 70-150</td>
</tr>
<tr>
<td>57j23</td>
<td>Hull T200</td>
<td>Britannia</td>
<td>AD 100-250?</td>
</tr>
<tr>
<td>99f</td>
<td>North Italy, South Gaul and Balkans</td>
<td>30 BC-AD 30</td>
<td></td>
</tr>
<tr>
<td>99j</td>
<td>Gaul?</td>
<td>30 BC-AD 70?</td>
<td></td>
</tr>
</tbody>
</table>

Table 19 Main outlying fibula types, based on the BLC typology. Findings from the present study are incorporated in this table.
pieces, especially those listed under type 99, will be treated under the heading of the separate sites in the next section.\textsuperscript{1569}

**VII.2.a Description of deviant fibula types**

*Type 13: collar fibulae*

Fibulae of type 13 have been classified by Michel Feugère as type 10a.\textsuperscript{1570} Their most distinctive feature is a high rhomboid or trapezoid bow, the collar, which connects to a broad disc (fig. 53). The earliest collar brooches stand out for their long feet; they may date from as early as 50 BC. However, these early specimens are lacking in the Lower Rhine region. Of the later version, with a shorter foot and a smaller bow, two are listed for Neuss, and one for Moers-Asberg and Nijmegen-Hunerberg. Brooches of this rare type are pre-eminently associated with female dress from the territory of the Treveri,\textsuperscript{1571} but this can actually only be stated for certain for the subtype Trier-Wincheringen.\textsuperscript{1572} It is safer to assume a more general western Celtic background for these brooches.\textsuperscript{1573} Collar fibulae of type 13 are dated from c. 20 BC until AD 20.\textsuperscript{1574}

*Type 14: strongly profiled fibulae*

The type 14 fibulae correspond with Almgren types 65-69 and 236. These strongly profiled fibulae are numerous along the Upper Danube and in the Alpine region, especially the province of Raetia, according to Heeren and Van der Feijst.\textsuperscript{1575} The type is subdivided into five variants. Variant a (Almgren type 65) is not attested at the military sites in the research area, and will therefore not be further considered here. Variant e is recorded only once, at Nijmegen-Hunerberg, and is therefore treated only in detail under the separate heading of that site. The same goes for variant 14c, which is only recorded for Alphen aan den Rijn. The variants 14b and 14d are concisely characterized in the following.

*Type 14b: strongly profiled fibulae with one bow-knot*

Type 14b has a bulbous head and a long foot which ends in a knob placed in line with the foot (fig. 54). In the typology of Almgren fibulae of this variant are found under types 67 and 68. They are originally from the Norico-Pannonian region. Heeren and Van der Feijst date this variant to AD 15-40,\textsuperscript{1576} but evidence from southern

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\textsuperscript{1569} All images of the discussed fibula types have been extracted from the general *Typentafel* of Heeren & Van der Feijst 2017 (scale 2:3) unless otherwise specified. I thank S. Heeren for providing me with the images.

\textsuperscript{1570} Feugère 1985, type 10a.

\textsuperscript{1571} E.g. Heeren & Van der Feijst 2017, 56, 254.

\textsuperscript{1572} Rothe 2010, 66, referring to Böhme-Schönberger 1994, and explicitly mentioning the Trier-Wincheringen type. This particular variant is, however, not known from the research area.

\textsuperscript{1573} Cf. Böhme-Schönberger 1994, 126.

\textsuperscript{1574} Heeren & Van der Feijst 2017, 55-56. Its successor *BLC* type 34 cannot be as strongly associated with Gaul. It was rather a supra-regional type, possibly especially popular among the military. Cf. Heeren & Van der Feijst 2017, 279.

\textsuperscript{1575} Heeren & Van der Feijst 2017, 57-59.

\textsuperscript{1576} Heeren & Van der Feijst 2017, 59.
Germany and the Balkans supports a circulation well into the Flavian period. Fibulae of this variant are listed for Nijmegen-Kops Plateau, Nijmegen-Hunerberg and Maurik.

Type 14d: strongly profiled fibulae with one bow-knot

Variant 14d (Almgren 69) seems to be the latest of the range. It looks very much like the variant 14b; an important difference is the upturned foot with end knob (fig. 55). Moreover, it is shorter than the variant 14b. In the Lower Rhine region this variant seems to date predominantly to AD 60-90, although an onset in the Claudian period seems to be likely. In this study a preferred date between AD 60 and 90 is maintained. Its origin lies probably on the Upper Danube rather than in Alpine Raetia. An association with Noricum and Pannonia seems therefore more appropriate. Heeren and Van der Feijst noted a relatively high number of these brooches at Alphen aan den Rijn and Nijmegen-Hunerberg. Other findspots are Neuss, Moers-Asberg, Maurik, Bunnik-Vechten and Valkenburg-fort.

Type 15: winged fibulae

This type corresponds with Feugère type 13b (fig. 56). Only two fibulae of this early Gaulish type have been found in the research area, both at Nijmegen-Kops Plateau. The core distribution area of this fibula type is Central Gaul and Switzerland, with a currency between c. 10 BC and AD 30. The two fibulae from the Kops Plateau might be linked with people who occupied the fort during its first or second phase.

Type 16: hook fibulae

The simple brooch of type 16 is characterized by a sharp bend in the bow. It is considered to be a Gaulish type, hence the type name in German einfache Gallische Fibel. In the BLC typology fibulae of both Feugère type 14b and type 9b are grouped under this heading. Heeren and Van der Feijst have identified three main variants, namely 16a, 16b and 16c. Since their area of origin seems to differ to some extent, they will be...
discussed separately here. In general type 16 fibulae can be dated to the pre-Flavian period.

Type 16a: hook fibulae with a small bow

Fibulae of variant 16a are considered to be of the common form of hook fibulae, with variant 16a2 being the most numerous (fig. 57). It originates from Gaul. Although it is highly frequent in the military forts along the Rhine, it is foremost associated with female dress. The ‘classical’ 16a was in use from 20 BC until AD 80, with a main circulation between AD 1 and 60. It has been recorded at many of the military sites along the Lower Rhine, namely at Cologne-Alteburg (6 pieces), Neuss (51), Krefeld-Gellep (7), Moers-Asberg (29), Nijmegen-Kops Plateau (22), Nijmegen-Hunerberg (17), Maurik (3), Bunnik-Vechten (9), Woerden (1), Zwammerdam (1), Alphen aan den Rijn (6), Leiden-Roomburg (1), Valkenburg (2) and Velsen (4).

Type 16b: hook fibulae with a flat broad bow

Variant 16b (Feugère type 9b) sets itself apart through its broad and thin bow of sheet metal (fig. 58). Remarkably, this variant is only known from the research area and from the south of France. Fibulae of this variant may thus be regarded as indicative for the presence of people with a South Gaulish connection, in the pre-Flavian period. Variant 16b is attested only at Krefeld-Gellep (1 piece), Moers-Asberg (4), Nijmegen-Kops Plateau (1), Nijmegen-Hunerberg (3) and Leiden-Roomburg (1).

Type 16c: hook fibulae decorated with knobs

Under variant c are gathered fibulae that display attached decorative elements, consisting of knobs placed on the foot, attached to the sides or incised grooves on the bow (fig. 59). Fibulae of this variant are difficult to date, not in the least because only a small number of pieces are recorded. They seem to have circulated mainly in the pre-Flavian period. Their origin is also assumed to lie in Gaul. Fibulae of variant 16c have been found at Neuss (2 pieces), Moers-Asberg (1), Bunnik-Vechten (1) and Alphen aan den Rijn (1).

Type 20: eye fibulae

The so-called eye fibulae were classified by Almgren under types 45-46. They constitute one of the largest groups of fibulae found in the Lower Rhine area.

1584 Fibulae of type 16 that could not be further classified on the level of one of the variants are (additionally) listed for Nijmegen-Kops Plateau, and Bunnik-Vechten.
1585 Heeren and Van der Feijst have identified four 16a variants.
1586 Type 16 fibulae have been discovered in graves appointed to women. Cf. Heeren & Van der Feijst 2017, 354, table 7.2.
1587 Heeren & Van der Feijst 2017, 386, 388, fig. 8.21.
1588 Heeren & Van der Feijst 2017, 60-63, 354.
The main characteristic feature of eye fibulae is the eye-shaped decoration on the head of the brooches. Depending on the variant, these eyes are open (variants a-c in the \textit{BLC} typology), closed (variant d) or absent (variant e). Variant f displays not only eyes on the head but also over the rest of the fibula body, in rows or pairs. This range is recorded by Almgren under the types 57-61. \footnote{1589 Almgren 1923. See also Pfeiffer-Frohnert 1998.}

It is suspected that eye fibulae in general were specifically produced to be exported to Germania magna or to be bought by soldiers of Germanic descent serving in the Roman (auxiliary) army. \footnote{1590 Heeren & Van der Feijst 2017, 75-76.} Bernd Steidl sees the presence of eye brooches outside of the main Germanic distribution area as the material residue of a relocation of Elbgermanic people within the Roman sphere of influence during the first half of the 1st century AD. \footnote{1591 Steidl 2013.} He notes three remarkable concentrations: in the Lower Rhine area, along the Middle Rhine and the northern Upper Rhine, and in the western part of Raetia. They may well be related to the incorporation of Germanic warrior groups from the former Marcomannic confederation on Roman territory along the Rhine and Danube, according to Steidl. This would then have taken place during Tiberius’ reign. Somewhat problematic, with respect to the situation in the Lower Rhine area, is the precise date range and other evidence for the arrival of Germanic people. Without a more detailed investigation the scenario proposed by Steidl cannot be projected on the Lower Rhine situation without hesitation, but it is certainly an interesting hypothesis.

To appoint a northern Germanic association to variants 20a-e is at odds with their designation by Heeren and Van der Feijst as ‘regional’ types. \footnote{1592 Heeren & Van der Feijst 2017, 279.} It may therefore be questioned whether the presence of variants 20a-e on a site can be regarded as indicative for the presence of people with a (Free) Germanic connection. In addition, Heeren and Van der Feijst maintain a longer and later period of use than Steidl does for the main type, namely from AD 5 to 100. \footnote{1593 Heeren & Van der Feijst 2017, 76.} Since the impression arises that the eye brooches of variants a-e represent a regional development from an originally northern Germanic type, \footnote{1594 This impression is not in the least fed by the large amount of this type of brooches found in the Lower Rhine area. See also Haalebos 1986b, 37.} only variant 20f will be further considered.

\textbf{Type 20f: eye fibulae with decoration on the body of the fibula}

Variant 20f brooches distinguish themselves through their large size and the extra decoration on the body of the fibula, in the shape of pairs of eyes (fig. 60). Heeren and Van der Feijst equate their variant 20f with the \textit{Preußische Nebenserie}, Almgren types 57-61. They draw the name from their main area of distribution, in the northeastern part of the Germanic territory. Heeren and Van der Feijst state that only for this variant of the eye brooch production has been demonstrated. \footnote{1595 Heeren & Van der Feijst 2017, 75-76, 378, 380, fig. 8.11.} Remarkably, this was at Augsburg, in the province of Raetia, which is well away from the main distribution of the variant in modern-day Poland and the Baltic states plus other parts of Central and North Germania, Bohemia and also southern Scandinavia. The observation that hybrid and transitional forms dominate the spectrum argues that brooches of this \textit{Nebenserie} were produced not in one place but in several workshops. However,
since these fibulae are rarely found in the Roman provinces, production mainly outside the Empire may be assumed. Within the research area seven brooches of this variant have been recorded, namely at Moers-Asberg, Nijmegen-Kops Plateau, Nijmegen-Hunerberg, Bunnik-Vechten and Valkenburg-fort.

Fibulae of variant 20f are generally dated by Heeren and Van der Feijst to AD 15-70, but Ute Pfieffer-Frohnert states that the fibulae of the Preußische Nebenserie are considered to be Leitformen of Eggers’ phase B 2a, which corresponds roughly with the late Flavian-Trajanic period.1596 This is a considerable difference in chronology. If we were to go by the finds from the Lower Rhine area, the fibulae found at the Kops Plateau advocate an earlier, pre-Flavian date. The variant 20f brooch found on the Hunerberg in Nijmegen actually comes from a burial dated to the Claudio-Neronian period.1597 At least three fibulae of variant 20f were recognized among the grave goods of the cemetery unearthed in the Museum Kamstraat in Nijmegen, which is typically pre-Flavian in date.1598 Willem Vermeulen describes a grave in which three fibulae were found, two eye fibulae and one hook fibula with spring cover. One of the eye fibulae is a variant 20f; the hook fibula of variant 24a3 dates the ensemble before AD 50.1599 Indications from the Nijmegen area thus point at a pre-Flavian date. For now, a Claudio-Neronian date is assumed for brooches of this variant found in the research area.

This chronological divide draws attention to an observation already made by Oscar Almgren regarding the piece from Bunnik-Vechten. He interprets this fibula, together with a similar one from Lubieszewo, Poland, as transitional pieces, linking the main series of eye fibulae with the later Preußische Nebenserie.1600 Indeed, the fibulae of variant 20f recovered from the Lower Rhine area seem to have more in common with Almgren type 52, the latest of the Hauptsérie of the eye fibulae, than with the developed types of the Nebenserie, especially Almgren types 60-61. Find contexts from Augsburg indeed indicate a late Flavian or early Trajanic date for the latter.1601 This underlines the chronological difference mentioned above. The image thus emerges that the fibulae from the Lower Rhine area, apparently mostly from pre-Flavian contexts, do not belong to the actual Nebenserie, but are rather transitional variants preceding the Nebenserie.1602

Caution is thus warranted with fibulae of variant 20f. It appears that the fibulae with the typical eye decoration of the Preußische Nebenserie and the large dimensions which are recorded for the Lower Rhine area could well belong to a transitional group. The origin of this group may be the same as that of the other eye fibulae, the main series, although it cannot be ruled out that their development was instigated by people with a stronger Germanic background or

1596 Heeren & Van der Feijst 2017, 76 vs Pfeiffer-Frohnert 1998, 130. Riha (1979, 70, type 2.4) mentions one piece contextually dated to the Flavian period. Voß (2016, 20) dates the eye brooches of the Preußische Nebenserie produced in Augsburg to the second half of the 1st century AD. As far as these Augsburg brooches came from datable find contexts, they were dated to the Late Flavian-Early Trajanic period. The brooches in question were all of the later types Almgren 60-61. Pers. comm. M. Pauli.
1597 See below, n. 1816.
1598 The three fibulae come from two graves, nos 112 and 129. One of the other goods interred in grave 112 is a South Gaulish terra sigillata cup stamped by Scotnus, which can be dated to AD 35-65 (NoTS: Scotnus, La Graufesenque). This places the accompanying 20f fibula in the Claudio-Neronian period.
1599 Vermeulen 1932, 129-130 and 170, grave 48 with inv.nos 273 (variant 24a3), 274 (variant 20d1) and 275 (variant 20f).
1600 Almgren 1923, 29; Pfeiffer-Frohnert 1998, 126.
1601 Pers. comm. M. Pauli.
1602 I thank M. Pauli for bringing this to my attention.
orientation, as assumed for the Nebenserie. Further research into the distribution of the transitional group could shed more light on this aspect.

**Fig. 61** BLC type 23.

*Type 23: collar fibulae with spring cover*

In the BLC typology, the latest subtype of the Gaulish collar brooches is classified as type 23. It corresponds with type 10c in Feugère’s typology. The spring cover sets it most clearly apart from the earlier variant, type 13. It is also lacking the distinct bow disc of its predecessor (fig. 61). According to Feugère, this type of fibula is mostly known from northern Gaul and Germany.\(^{1603}\) Heeren and Van der Feijst locate this fibula type mainly in the region around Trier, but this is contradicted by Hubert Leifeld, who concludes that this type of fibula is rare in the Moselle-Rhine area.\(^{1604}\) The date range is also difficult to pinpoint. Where Feugère maintains a date after the middle of the 1st century AD,\(^{1605}\) Heeren and Van der Feijst place fibulae of their type 23 between c. AD 20 and 50.\(^{1606}\) Leifeld postulates that the type appears in the Claudio-Neronian period and might have been used into the first half of the 2nd century AD.\(^{1607}\) This later date would, at first sight, better fit the brooch type 23 found at Nijmegen-Hunerberg, for the Flavian occupation is much better attested than the tentative Claudio-Neronian one. On the other hand, other pre-Flavian but post-Augustan Gaulish fibulae have also been found at the Hunerberg, which makes a Claudio-Neronian date less improbable. The other site in the research area where this fibula type has been found, is Xanten-Vetera I. The general chronological framework of the site suggests a pre-Flavian date for at least that particular specimen.

*Type 24: spring cover fibulae with a hooked bow*

The well-known Langton Down fibulae are in the BLC typology grouped under main type 24, which corresponds with Feugère type 14b. These spring cover fibulae have a sharp angle in the bow, right above the cover. The bow is straight and low and continues uninterrupted into the foot. The Langton Down fibulae constitute the variant 24a. Variant 24b is smaller but has a thick and massive bow. It is considerably less frequent than the variant 24a. For variant 24c the designation ‘Nertomarus fibula’ is in use. There is no doubt that type 24 is an originally Gaulish product. It appears during Augustus’ reign and remains current until the middle of the 1st century AD. The dating of 24a1 deviates from this: it is the earliest variant, and has been dated to 30 BC-AD 1 by Heeren and Van der Feijst.\(^{1608}\) For some variants a specific region of origin within the Gaulish territory has been proposed, but new finds have often made clear that the fibulae of type 24 in general had a wide distribution across the Celto-Gaulish territory. For instance, variant 24b was supposed to have a particular Treveran signature, but it has now been attested on sites in a broad area stretching from Normandy to western

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1603  Feugère 1985, 245.
1604  Leifeld 2007, 193-195 (type SpH-7).
1605  Feugère 1985, 247.
1606  Heeren & Van der Feijst 2017, 81-82.
1608  Heeren & Van der Feijst 2017, 84.
Switzerland. Its chronology can also be adjusted to the entire first half of the 1st century AD.\textsuperscript{1609} Still, there remain a few fibulae that can be appointed to a more restricted area of origin. These are grouped here under respectively BLC variant 24a4 and 24a5.

Type 24a4: Langton Down fibulae with a straight bow onset and decoration

Fibulae of this variant are not only characterised by a straight bow onset; the bow is also decorated with dotted or zigzag lines (fig. 62). According to Leifeld, the distribution of this fibula type reaches across the whole of Gaul.\textsuperscript{1610} It stretches from the Rhine in the East to the south coast of Britannia in the West, but it has two notable concentrations: one around Paris and one in the Moselle-Rhine area (roughly Treveran territory). The pieces found on the military sites in the research area are best dated to the period between 15 BC and AD 50, although an extension into the Flavian cannot be ruled out.\textsuperscript{1611} Variant 24a4 has been recorded at Neuss, with a remarkable number of five pieces, at Moers-Asberg, with one piece, and at Nijmegen-Kops Plateau, also with one piece.

Type 24a5: Langton Down fibulae with a bow head curvature or ridge

For variant 24a5 Heeren and Van der Feijst suggest that it might have been produced regionally, in imitation of the original Gaulish fibulae. It seems therefore safe to regard these fibulae not per se as indicators for the presence of people with a Gaulish background, although a Gaulish connection is very likely. The variant has the same general date as main type 24, namely 15 BC-AD 50. Seven fibulae of this variant have been found in the research area, all in Nijmegen (fig. 63).

Type 25: spring cover fibulae with fantail

These fibulae with remarkably broad feet, fanning out, are divided into four variants, of which 25c and 25d may well have been produced in the Lower Rhine region, since they do not seem to have been recognized elsewhere.\textsuperscript{1612} Variants 25a and 25b can be equated with Feugère type 18a, for which a central or eastern Gaulish origin is assumed. A separate description of these two variants seems therefore in place here.

Type 25a: closed spring cover fibulae with fantail

An important difference between variants 25a and 25b is that the spring cover of 25a is closed, whereas that of 25b is open. The closed spring cover is considered to be indicative for an early dating, in the early to mid-Augustan period, although Heeren and Van der Feijst propose that fibulae of this type may have been in use until c. AD 10/20, because some have been found further away from

\textsuperscript{1609} Cf. Leifeld 2007, type SpH-2.3, 173-178. Heeren and Van der Feijst (2017, 85) assumed a date from 15 BC until 1 BC.
\textsuperscript{1610} Leifeld 2007, type SpH-2.2a, 170-172.
\textsuperscript{1611} Cf. Leifeld 2007, 171-172; Heeren & Van der Feijst 2017, 85.
\textsuperscript{1612} Heeren & Van der Feijst 2017, 86-87.
the Augustan fortifications in Germania inferior. Feugère argues a generally Augustan date for fibulae of this variant and an origin in central or eastern Gaul, probably in or near Burgundy. Variant 25a is listed for Neuss and Nijmegen-Kops Plateau (fig. 64).

Type 25b: open spring cover fibulae with fantail

The spring cover of variant 25b is open, but it shares the broad fantail with variant 25a (fig. 65). For this variant a slightly later and longer circulation period is assumed, practically covering the whole pre-Flavian period. The three-part bow knob bears a strong similarity to that of the winged Gaulish fibulae (type 15), which corroborates the presumed Gaulish origin of this variant. According to Feugère, variant 25b comes originally from the same region as variant 25a, namely central or eastern Gaul. They do not seem to predate AD 20; most of them are Claudio-Neronian. Within the research area fibulae of this variant have been found at Moers-Asberg and Nijmegen-Hunerberg.

Type 26: thistle fibulae

The group of thistle fibulae has been subdivided in three variants. These will be discussed separately.

Type 26a: small thistle fibulae

Feugère type 16 is the equivalent of variant 26a. The smallest of the so-called thistle fibulae still has a length between 29 and 51 mm. The name-giving thistle decoration is not yet fully developed. Instead, the large bow disc shows concentric grooves (fig. 66). A further characteristic feature is a spring cover closed at both ends. Variant 26a is Augustan in date. It may be assumed that it was no longer in use after AD 15. Its origin lies in Gaul. The highest concentrations are found in central, northern and northeastern Gaul. It is traditionally associated with female dress, but it has also been found in graves of men. In total twelve brooches of variant 26a are listed in the BLC database for military sites in the Lower Rhine region. Of these, Neuss has the highest number with eight pieces, followed by Nijmegen-Kops Plateau with two. Moers-Asberg and Xanten-Vetera I each have one.

Type 26b: large thistle fibulae

In Feugère’s typology the large thistle fibula finds its equivalent in his type 19. The length of the fibula

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1613 Heeren & Van der Feijst 2017, 87.
1615 Heeren & Van der Feijst 2017, 87.
1617 Heeren & Van der Feijst 2017, 88-90.
1618 Feugère 1985, 270.
1619 Leifeld 2007, 187-188.
ranges between 38 and 102 mm. The bow disc is decorated with an open-work tin-plate applique reminiscent of a thistle flower (fig. 67). The disc is often round, but can also be rhomboid. Sometimes the bow has the shape of one or multiple lions instead of a broad band with grooves. In contrast with its predecessor, the sides of the spring cover are open. Variant 26b emerges in the late Augustan period and stays in use until AD 70, with a peak in the Claudian period. Its main distribution lies in East Gaul, along the Middle and Upper Rhine and in Switzerland. As its predecessor variant 26a, the large thistle fibula is assumed to have been worn especially by women, but not exclusively. If we put aside the nine variant 26b brooches found on the site of the colony at Xanten, Nijmegen-Kops Plateau has the highest number with seven pieces, followed by Kalkar-Alt-Kalkar, Neuss, Moers-Asberg, Nijmegen-Hunerberg and Vechten.

Type 26c: large rosette fibulae

As variant 26b, the large rosette fibula has a spring cover with open sides. It differs in the construction of the bow, which is flat (fig. 68). It carries a hollow applique with small perforations. This large round decorative elements induced the title ‘rosette’. Fibulae of this type are generally dated to the Tiberio-Claudian period, but in the Lower Rhine area they do not seem to predate the Claudian period. After AD 70 they have disappeared from circulation. There is a remarkable concentration in and around Nijmegen. Heeren and Van der Feijst put forward the suggestion that the rosette fibula may be a northern, and less complex, variant of the thistle brooch. As with the other type 26 variants, 26c will pre-eminently have been worn by women who probably had some kind of connection with Gaul, be it perhaps more indirect, as suggested by the developed nature of this variant. In the BLC database nine brooches of this variant are listed, distributed among Neuss, Krefeld-Gellep and Velsen 1.

Type 28: spring cover fibulae with lion decoration

The bow of these spring cover fibulae takes the shape of a lion figure or of two lions’ heads (fig. 69). Feugère lists these fibulae under type 18b. They are closely related to BLC types 25a and 26b; these spring cover fibulae are occasionally also decorated with lion figures. The type is generally dated to 10 BC-AD 70, but with a preference for AD 1-50. The earliest examples are known from the south of France. Evidence for production of this type has been uncovered at Mont Beuvray. Type 28 fibulae are rare in the Low Countries, with only fifteen

1620 Heeren & Van der Feijst 2017, 88-90.
1621 Leifeld 2007, 184-185.
1622 Böhme-Schönberger 2002; Leifeld 2007, 187-188.
1623 Heeren & Van der Feijst 2017, 88-90.
1624 Its successor BLC type 35 developed into a supra-regional type, which was possibly especially popular among the military.
1625 Heeren & Van der Feijst 2017, 91-92.
1626 Feugère 1985, 280-281, fig. 29.
entries in the BLC database. Within the research area, they have been found in Neuss and at Nijmegen-Kops Plateau.

*Type 29: hinged fibulae with strip bow and straight foot*

This is a very rare type of which only three specimens are recorded in the research area, all in Nijmegen (fig. 70). The type seems related to the Gaulish types 16 (hook fibula) and 24a (Langton Down type).\(^{1627}\) Only for variant 29c an exact parallel was found, discovered in Luxemburg. For the other variants, similar brooches from England qualify, but not completely. Stylistically a pre-Flavian date is assumed, but secure dating indications are lacking, which is connected to the rarity of the type. With the present state of knowledge, the one type 29 fibula from Nijmegen-Hunerberg and the two type 29 fibulae from Nijmegen-Kops Plateau (a variant 29a and a variant 29b) tentatively suggest a connection with Gaul in the pre-Flavian period.

*Type 36: hook fibulae with spring cover*

Fibulae of this type are considered to be British (fig. 71). These spring cover hook fibulae have been encountered on the British Isles in large numbers. They are related to the so-called Colchester brooch. In Britain they are known under the names of the different variants belonging to this family: Polden Hill brooch, Dolphin brooch, the *two-piece Colchester derivative* (T92-T103 in Hull’s typology). The chains found still attached to some pieces indicate that they were worn by women. For the British pieces, a date between AD 50 and 70 is maintained. The BLC database lists fourteen pieces found in the Low Countries. Half of them come from two military sites in the Lower Rhine region, namely Nijmegen-Hunerberg and Alphen aan den Rijn.\(^{1628}\) If the pieces from the Hunerberg are related to the canabae occupation, which is likely but not certain, then these fibulae might have been longer in use, until after AD 70.\(^{1629}\) The latter impression seems to be confirmed by Hilary Cool, who writes that the two-piece Colchester derivative brooches were developed in the 50s but remained in use into the 2nd century.\(^{1630}\) Thus, a general date between AD 50 and 100, as proposed by Heeren and Van der Feijst, might even be too limited.\(^{1631}\)

*Type 41: omega fibulae*

Fibulae of the general penannular type, with the outer ends folded back towards the main arch of the fibula and thus creating an omega-shape, remained in use for a long time (fig. 72). They become particularly popular by the end of the Iron Age, but their origin lies much further back, in the 5th century BC.\(^{1632}\) The type in general continues well into the Late Roman period; some variants of

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\(^{1627}\) Heeren & Van der Feijst 2017, 92-93.
\(^{1628}\) Two possible Colchester derivatives from the Kops Plateau mentioned by Ivleva (2012, 262) do not appear as such in the BLC database nor in the detailed report on the fibulae from this site (Heeren & Van der Feijst 2014). They are probably better grouped with a different type of hook fibula.
\(^{1630}\) Cool 2016, 412.
\(^{1632}\) Cf. Feugère 1985, 419.
the penannular type have even been dated to the 6th century AD.\textsuperscript{1633}

Another complicated issue is the origin of this type. A survey of the literature results in three regions – the Iberian Peninsula, Scandinavia and Britannia – where penannular brooches appear, virtually contemporaneously. This has led to debates about how these penannular brooches relate to each other. Anna Booth concluded that the omega brooch in particular, which has opposing rather than curved terminals, is likely to have reached Britain from the Continent.\textsuperscript{1634} There are clear differences between the variants that have been found in Britain and those found on the Continent. The primary origin of the omega fibula may well lie on the Iberian Peninsula. In a survey of fibulae from Meseta Central, the great interior plateau of central Spain, virtually half of the listed fibulae appeared to be omega fibulae.\textsuperscript{1635} It is thought that this type of fibula occurred initially, in the Iron Age, only in the northeastern part of Portugal and in the military camps on the Iberian Peninsula.\textsuperscript{1636} From there it will then have spread into Gaul, Britannia and probably also along the Rhine, from the Augustan period onwards, culminating in the Claudian period.

Not everyone agrees with an indigenous or native origin of this fibula type. The strong occurrence of omega fibulae in early Roman army camps in Hispania led some to believe that those fibulae are the product of Romanisation, thus to be explicitly classified as Roman fibulae, not as indigenous.\textsuperscript{1637} It cannot be denied, however, that the people living on the Meseta Central had a strong preference for the omega brooch, more than anywhere else in the Roman Empire, going by the published finds. The strong and early predominance of this type of fibula in Central Spain, so not only on military sites, gives the impression that the development and distribution of this fibula type took off from the Iberian Peninsula. It was already proposed by Elizabeth Fowler that the omega brooch may have been introduced to other regions of Europe by soldiers originating from the Iberian Peninsula.\textsuperscript{1638} In the same line, Heeren and Van der Feijst conclude that the omega brooch is a typically military fibula, at least in the Low Countries, and that the fibula might initially have been brought here by men with an Iberian background. Fibulae found in the research area are likely to date from the Claudio-Neronian period, although the discovery of the type in Haltern evidences that they could be earlier.\textsuperscript{1639}

In the \textit{BLC} database, 34 specimens of type 41 are listed for sites in the research area. Strikingly, Neuss does not appear, while Xanten-pre-colonia and Nijmegen-Kops Plateau are the main contributors, with 15 and 13 brooches. For the brooches from Xanten, it certainly cannot be ruled out that there are pieces from the 2nd century or later among them, but it may be assumed that the brooches from Nijmegen-Kops Plateau are generally pre-Flavian in date. Further military sites with omega fibulae are Cologne-Alteburg, Moers-Asberg, Xanten-Vetera I,
Nijmegen-Hunerberg, Maurik, Bunnik-Vechten, Alphen aan den Rijn and Velsen.

**Type 44: one-piece wire or knee fibulae**

Brooches of this type have a broad spring counting 10 to 30 coils (fig. 73). Most of them are equipped with an upper chord held by a hook. They have their equivalent in the range Almgren 138-146. The main distribution is found in the Lower Elbe region, where presumably also production took place. It has been difficult to establish a detailed chronology for these fibulae. Heeren and Van der Feijst propose a broad general date of AD 50-200, applying to all three variants (a-c), but with a preference for the years between AD 70 and 180.1640

On military sites in the Lower Rhine area twelve copper-alloy pieces of this Germanic type have been identified, representing only variants 44a and 44b. These sites are Neuss, Krefeld-Gellep, Moers-Asberg, Nijmegen-Hunerberg and Bunnik-Vechten. The presence of this type at Neuss in the collection from the Koenenlager, but its absence from the collection described by Simpson underline a starting date in the Claudian period or later.1641 Further confirmation can be found in the presence of other typically Germanic fibulae dated to the second half of the 1st century AD or later in Vechten.1642

**Type 52: trumpet head fibulae**

This fibula type corresponds with Almgren type 101. According to Ulrich Boelicke, fibulae of Almgren type 101 were in use from the late Neronian period until after the middle of the 2nd century AD. Their distribution has two clear concentrations: in the Lower Elbe region and in the Middle Rhine region.1643 They were worn by both men and women.1644 It appears that the brooches were originally made in Germania, and subsequently came to the Rhine, most obviously through the agency of men serving in the Roman army.

A closer look at the different variants within the type could shed more light on the chronology of these Germanic trumpet head brooches. Astrid Böhme-Schönberger divides the type into four subtypes (A 101a – A 101d).1645 The earliest is her subtype A 101a. These brooches are relatively small, they have a full round bow disc and are often decorated with a beaded line along the head and the bow disc. In the following subtype A 101b, the bow disc is no longer full but half round and a decoration of beads is normally lacking. The dating of the subtypes is still not quite clear, but A 101a starts around the middle of the 1st century AD, with A 101b continuing into the first half of the 2nd century AD. In the course of the 2nd century, subtypes 101c and 101d appear. BLC variant 52d, characterised by a broad foot, corresponds with the latter two. Fibulae of this variant are thus not relevant for the research at hand.

Regarding the origin of the fibulae, the length of the spiral and the material that was used in making the brooches may provide clues. Böhme-Schönberger points out that fibulae from the Elbe region often have a long spiral, and that

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1640 Heeren & Van der Feijst 2017, 121-123. See also Gupte 1998, esp. 208-210.
1641 Cf. n. 1565.
1642 See the following discussion of type 52, and the separate discussion of the site itself in the next section.
1643 Boelicke 2002, 76.
1644 Böhme-Schönberger 1998, 177, 183.
silver pieces outnumber the copper-alloy ones. She sees an explanation for the appearance of copper-alloy fibulae on the Rhine frontier in soldiers of Germanic origin serving in the Roman army who order new fibulae locally made, from copper alloy, but in the shape of the fibulae they brought with them from their homeland. She places the start of the production of such copper-alloy fibulae on or near Roman military sites around AD 90-100. This does not per se mean that copper-alloy fibulae of this type were made exclusively on the Rhine and not in northern Germania, but it seems safe to assume that silver or even golden fibulae were only produced in the North.

Eleven specimens of type 52 have been found on military sites along the Lower Rhine, including Xanten-pre-colonia and the civilian settlement southeast of the fort at Utrecht-Hoge Woerd. The one from Hoge Woerd cannot be directly associated with military personnel, but the find is interesting to mention here because of its context. All the fibulae from that specific context, a vegetation horizon, date for certain from the 1st century AD, except the one variant 52a fibula. Perhaps it may then be inferred that this particular trumpet head brooch was also deposited before c. AD 100. Returning to the list of type 52 fibulae from the research area, no less than six pieces have been found at Bunnik-Vechten, which is a remarkable concentration. Two are from Xanten-pre-colonia, one from Xanten-Vetera I, and one from Nijmegen-Hunerberg. Apart from one variant 52d, an apparent 2nd-century piece from Vechten, the remaining nine brooches are classified as variant 52a (fig. 74). Especially for Vechten they might signal a presence of people from the Germanic territories in the later 1st or early 2nd century. The fibula from Vetera I should logically, going by the general date of the site, be one of the earliest, pre-Flavian trumpet head fibulae, but the brooch could have been lost on the Fürstenberg at a later point in time. However, this copper-alloy fibula belongs to Böhme-Schönberger’s subtype A 101a.

Type 53a: trumpet head fibulae, often with head plates

As type 52 these fibulae are characterized by trumpet-shaped heads, but they are part of a British tradition (fig. 75). It can be assumed that all the fibulae of this type found on the Continent are imports from Britain. Heeren and Van der Feijst discern three main variants (a-c), of which only the early specimens of variant 53a date from the 1st century AD. Whereas Tatiana Ivleva argues that these trumpet brooches were not produced before AD 80, Cool states that they were developed in the 60s and 70s. A fibula of variant 53a (the equivalent of Hull types T153-158) has been found at Alphen aan den Rijn.

Type 54: enamelled bow fibulae

Enamelled fibulae came into use in the second half of the 1st century AD. This particular type, type 54, comprises two British types, the headstud brooch

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1647 Langeveld 2010, 214, 216, fig. 62.
1648 The two fibulae of variant 52a found during the 1995-1996 excavations most likely date from the second half of the 1st century AD. This can be argued from the observation that about 75 percent of the terra sigillata stamps collected during these excavations are to be dated in the period AD 50-100. I thank M. Polak for providing me with the information about the terra sigillata stamps.
1649 Heeren & Van der Feijst 2017, 139-141.
1650 Ivleva 2012, 266; Cool 2016, 412.
and the hinged T-shaped brooch. In Britain many subtypes are recognized, but because the number from the Low Countries is so low, Heeren and Van der Feijst deemed it sufficient to distinguish only three variants.\(^\text{1651}\) All three variants have an arched bow. Variant 54a displays small rhomboid or triangular fields of enamel on the bow (fig. 76), whereas variant 54b has broad square enamel fields and often a glass-inlaid hollow on the head. Variant 54c is not encountered on any of the military sites in the research area. Type 54 fibulae are generally dated to AD 60-180. They are listed in the BLC database for Neuss, Moers-Asberg, Nijmegen-Hunerberg and Bunnik-Vechten, with two pieces at Moers-Asberg and only one at the others.

**Type 57e2: hinged plate fibulae with enamel decoration**

Main type 57 covers a large category of hinged plate fibulae decorated with enamel on top of the plate. The BLC typology ranges from variant 57a1a to 57k8. It is difficult to appoint production sites to these fibulae. Only of a few variants it is possible to determine their origin. Variant 57a1c is British, but 2nd century. Variant 57b4, which is of Gaulish origin, is even later. Starting in the second half of the 1st century AD, however, are variants 57e2 (fig. 77), 57e3 and 57e4. These so-called umbonate brooches originate in Britannia (T199 and T267-268 in Hull’s typology). They can be roughly dated to AD 70-150.\(^\text{1652}\) In the research area only variant 57e2 is encountered, at Nijmegen-Hunerberg (two pieces), Cologne-Alteburg and Krefeld-Gellep. The latter is contextually dated to the first half of the 2nd century AD, which strictly speaking excludes it from the analysis. The same goes for the piece from Cologne-Alteburg, which through context information can be dated to the early 2nd century AD. This leaves the two from Nijmegen-Hunerberg, which are both stray finds.

**VII.2.b Outliers per site**

**Bonn**

Fibulae from Bonn were not included in the BLC database. They do not seem to have been published in detail. However, Ivleva discovered two fibulae reportedly found at Bonn in a publication on Romano-Celtic art.\(^\text{1653}\) The two fibulae are of British origin; one is a headstud brooch, the other a derivative of the same type. Within the BLC typology they would both classify as variant 54a. Ivleva dates the two fibulae to the late 1st century AD, but since the find contexts of these two fibulae is not known and the general type 54 is dated to AD 60-180, a later, 2nd-century date for these brooches must be considered as well.\(^\text{1654}\)

Of the various legionary and auxiliary units attested at Bonn through epigraphy, not one seems to have previously been stationed in Britain. Two auxiliary units levied in Britannia are attested as part of the army of Germania inferior, namely *cohors II Brittonum milliaria equitata* and *cohors VI Brittonum*, but so far indications for their presence are only known from Xanten and Vechten. Ivleva suggests that the British fibulae from Bonn may have been lost by members of

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\(^\text{1651}\) Heeren & Van der Feijst 2017, 141-142.  
\(^\text{1652}\) Heeren & Van der Feijst 2017, 149-158.  
\(^\text{1653}\) Collingwood 1930, 56, fig. 13; Ivleva 2012, 269-270, 595 (no 1), 597 (no 17).  
\(^\text{1654}\) According to Collingwood (1930, 54-56), the headstud brooch had its heyday in AD 140-180.
units raised in Britannia and on their way to a new station, staying at Bonn only for a short time in the late 1st century.\textsuperscript{1655} It is, however, difficult to imagine how a large number of soldiers in transit, let alone a complete unit, could have been accommodated at Bonn with the existing fort already occupied by members of a legion and two auxiliary units from AD 70 onwards.\textsuperscript{1656} Moreover, it remains unclear why Ivleva does not consider here units which had been stationed in Britannia for some time.\textsuperscript{1657} Soldiers of any origin who had previously been stationed in Britannia could well be responsible for leaving these British-type fibulae at Bonn. To this group soldiers of British origin serving in non-British auxiliary units and stationed at Bonn for some time can be added. As said before, of all the units epigraphically attested at Bonn not one is known to have been stationed in Britannia before it came to Bonn. However, after AD 83 the legionary fort at Bonn was occupied by soldiers of the legio I Minervia, the cohors I civium Romanorum and an unknown ala.\textsuperscript{1658} It is possible that one or more members of the unknown cavalry unit brought the type 54 fibulae to Bonn.

\textit{Cologne-Alteburg}

In total 76 fibulae have been added to the \textit{BLC} database. These pieces were distilled from the recent publication by Jan Krämer.\textsuperscript{1659} Of these 76, only 46 pieces could be dated, with caution, to the 1st century AD. The largest group (33\%) consists of type 45, the common wire brooch. This group is followed by types 16 and 17 (each 13\%).

A Gaulish association may be assumed for six fibulae of type 16, all variants 16a.\textsuperscript{1660} They were generally in use from c. 20 BC until AD 70. These simple Gaulish brooches are pre-eminently associated with female dress. According to Krämer, however, they all belong to the later variants of the hook fibulae. This is corroborated by their find contexts, which are dated to the late 1st or early 2nd century AD.\textsuperscript{1661} This suggests that people with a Gaulish background were present at Cologne-Alteburg in the Flavio-Trajanic period.\textsuperscript{1662}

A tentative Iberian connection is proposed for a so-called omega fibula, type 41. The contextual data pertaining to this piece suggests a deposition date in the 1st century AD, probably in the last quarter.\textsuperscript{1663}

A fibula with a British signature is an enameled umbonate fibula of variant 57e2.\textsuperscript{1664} The general date for this type, according to Heeren and Van der Feijst,

\begin{addendum}
\item Ivleva 2012, 57, 66, 74, 270-271. She explicitly names the ala I Britannica and the cohors I Belgarum equitata as candidates, but elsewhere (Ivleva 2016, 161) she notes that it is by no means certain that the cohors I Belgarum was raised among the Belgae tribe living in Britannia.
\item Cf. Gechter 2017b, 217.
\item Ivleva (2012, 48) did state that she would leave the actual origin of people transporting British objects out of consideration. In focusing here on only British-raised units she seems to have let go of this proviso.
\item Gechter 2007b, 217.
\item Krämer 2015.
\item Krämer 2015, 53-54, 146, 156-157, 181, 193, 258, 268-269, nos 0.18, 117.1, 210.6, 408.6, 482.1 and 1250.1.
\item Krämer 2015, 53-54.
\item Krämer (2015, 52-53, 200) also discusses a Krugenzibel (no 635.1). He labels it as of the Mainz-Andernach type, which has its equivalent in the \textit{BLC} typology under main type 34. However, where type 34 is hinged, the fibula from Alteburg is equipped with a spring coil. Contextually it is dated to the same period as the 16a fibulae. The later date and further typological similarities with type 34 make it less likely that the fibula was produced in Gaul. The later versions of collar brooches might well have been produced locally. Since type 34 is thus regarded as a later, supra-regional type, it is not discussed here as an ‘exotic outlier’. Cf. Heeren & Van der Feijst 2017, 279.
\item Krämer 2015, 57, 203-204, no 704.9.
\item Krämer 2015, 56-57, 243, no 1115.5.
\end{addendum}
is AD 70-150. It theoretically could date from the Flavian period, but in this case the contextual data indicates that it was deposited in the early 2nd century. Strictly speaking it would fall outside the scope of this research, but with a view to other objects with a British association, such as a ring fibula which will be separately discussed hereafter, it might be relevant to consider this umbonate fibula when thinking about the garrison changes. To this particular piece described by Krämer two more umbonate brooches can be added, which Ivleva has included in her study. She, however, appoints a date before AD 75 to these pieces, earlier than the general date of AD 70-150 mentioned above.

A ring fibula decorated with collared knobs

A ring-shaped fibula is included in this overview because it can be contextually dated to the period AD 10-70 (fig. 78). This calls for an additional explanation, since typologically it best fits the description of the Late Roman BLC type 70, generally dated to AD 250-550. Further investigation reveals that ring fibulae are known from earlier periods. Anton Höck writes that ring fibulae with the outer ends folded upwards, to distinguish them from the so-called omega fibulae, have been discovered in northern Germany among finds dated to the Early Iron Age. Later they appear, rather suddenly, in Britain, possibly related to the migration of Belgic tribes into the southern part of the main island. Ring fibulae with folded outer ends (away from the body of the fibula) in Britannia seem to have a chronological focus in the first half of the 1st century AD. When the fibula from Alteburg is compared to the classification presented by Booth in her study of penannular brooches from Britain, it matches her subtype A8 strongly enough to appoint a British association to this fibula. Subtype A8 is characterized by flattened knobs at the terminal ends of the fibula to which a single collar is added. The majority of type A fibulae in Booth’s classification postdate the Iron Age. Fibulae of her type A, i.e. ring fibulae with knobs decorating the outer ends, have a notable chronological focus in the late 1st-early 2nd century AD. In sum, somebody with a British connection might have been present at Cologne-Alteburg in the pre-Flavian period, going by the context of the fibula in question. This ring-shaped fibula can be added to the three umbonate fibulae mentioned previously, which are also assumed to come from Britannia but are probably later in date.

The British origin of these fibulae recalls British connections known from Cologne through inscriptions recovered in the city. The funerary monument dedicated to Aemilius, a member of the Dumnonii who served with the classis Germanica, was discovered in 1950 as reused building material in the local S. Severin church. The Dumnonii inhabited the southwest peninsula of the British mainland. The monument is dated to the late 1st or early 2nd century. After the Batavian Revolt the majority of the soldiers serving in the classis Germanica do not seem to have been of local origin, but to have been enlisted in

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1665 See p. 287.
1666 Ivleva 2012, 265-266, 598. She lists nine late 1st-century British fibulae from Cologne, six of type 53 (Ivleva 2012, 590).
1667 Krämer 2015, 57, 183, no 418.2.
1668 Heeren & Van der Feijst 2017, 185-186.
1669 Höck 2013, 337.
1670 Booth 2014, 128-139.
1671 AE 1956, 249.
1672 In this inscription the classis Germanica carries the honorary titles pia fidelis but not Domitiana. This had led to the assumption that the inscription was put up after AD 96. For sure the inscription cannot be earlier than AD 89. Cf. Cuvigny 1996, 170-171.
various provinces of the Empire, including Thrace, Britain and Raetia. Since Cologne-Alteburg was presumably the main station of the *classis Germanica* from the Claudian period onwards, members of the fleet would have garrisoned the fort when the British fibulae would have been in circulation. In theory Aemilius, whose grave monument was recovered, may have brought one or more of the highlighted British fibulae to Cologne. Two other grave stones from Cologne serve the memory of two more British men. One served with the *cohors III Breucorum*, the other with the *cohors VI Ingenuorum*. The funerary monuments have been dated to the Flavian period and to the late 1st to early 2nd century AD. It is very well possible that British-born soldiers in the fleet brought the British fibulae to Cologne.

**Neuss**

Fibulae collected at different locations in Neuss constitute a large group in the dataset used in this analysis. 432 of the 443 listed fibulae are roughly datable to the 1st century AD. The three largest groups are fibulae of types 30 (30%), 17 (19%) and 16 (12%). Where type 30 is a typical military fibula, type 17 is regionally well distributed. Type 16, however, has a non-military, non-regional signature; fibulae of this type are Gaulish in origin. For Neuss, 53 of such hook fibulae are listed. Two are of variant 16c, the remaining 51 pieces are grouped under variant 16a. Three (two variant 16a2 and one variant 16c3) have been published by Hans Lehner, the others by Simpson. These hook fibulae were roughly in use from the early Augustan period into the early Flavian period, with their main circulation between AD 1 and 60. The thirteen fibulae of the late variant 16a4 could chronologically be further specified to the period between AD 40 and 70.

More limited in their date range are two fibulae classified as type 13, collar brooches which have an explicit association with female dress in a Gaulish tradition, possibly narrowed down to that of the Treveran region. One fibula comes from the *Koenenlager*, the other probably from one of the earlier fortifications. They date from c. 20 BC-AD 20.

In total eighteen fibulae of main type 24 have been recorded for Neuss, all variants of 24a. Among these are no less than five fibulae of variant 24a4, all published by Simpson and therefore likely to be recovered from the area west of the *Koenenlager*. They were mainly in use from the Augustan until the Flavian.

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1674 Fischer 2000, 560-562.
1675 AE 2003, 1218 and CIL XIII 8314.
1676 Ivleva 2012, 220-221, 566-567.
1677 Cf. Ivleva 2012, 266.
1678 For the strong early component, see n. 1565-1566.
1679 Variant 16a: Simpson 2000, nos 453, 913, 1221, 1332, 1614, 2834, 2839, 3143, 3839, 5161, 5295, 8835, 9889, 11992, 12145, 14184, 14453, 16093, 16640 and 16834. Variant 16a2: Lehner 1904, 390, pl. XXIV, 13-14 (it seems that these two depicted fibulae represent respectively 19 and 9 pieces, which are not separately recorded in the BLC database); Simpson 2000, nos 452, 777a, 867, 1393a, 3310b, 691s, 6997a, 6997b, 7389, 8044, 9659, 11090, 12388, 14501, 15920 and 15946. Variant 16a4: Simpson 2000, nos 486, 2277, 2305, 3255, 3901, 4109a, 5061, 6453, 8017, 10747, 12665, 13301 and 13462. Variant 16c1: Simpson 2000, no 2524a. Variant 16c3: Lehner 1904, 390, pl. XXIV, 16 (inv.no 6010).
1680 Cf. Heeren & Van der Feijst 2017, 63.
1681 Lehner 1904, 388, pl. XXIV, 2 (inv.no 11903, from buildings 18-20 of the *Koenenlager*); Simpson 2000, no 1178a.
period, but a slightly later date is also possible. They are certainly Gaulish in origin, but may perhaps be narrowed down to the Parisian territory or the Moselle-Rhine region. For the other 24a fibulae a general Gaulish origin and a pre-Flavian date may be assumed.

An Augustan date can be appointed to variant 25a, of which two pieces are recorded for Neuss.\(^{1683}\) This variant originates from Central-East Gaul.

The presence of people with a Gaulish connection is further suggested by fifteen thistle fibulae, type 26. In contrast with the other sites under investigation, variant 26a outnumbers here the other variants of type 26 considerably. Of the Augustan variant 26a eight pieces are listed, two of variant 26b (AD 1-70), and four of the Claudio-Neronian variant 26c.\(^{1684}\) One fibula could not further be specified than as of main type 26.\(^{1685}\) Whereas 26a and 26b were probably made in Gaul, it is suspected that 26c was produced in the Nijmegen region, probably as an imitation of 26b. It is also worth to reiterate here that thistle fibulae were most likely worn by women. This spectrum of thistle fibulae might thus signal the presence of Gaulish people at Neuss in the pre-Flavian period, in the earlier as well as the later part.

Evidence for production of type 28 fibulae comes from Central Gaul. Three fibulae of this type have been published by Simpson,\(^{1686}\) and thus most likely come from the area west of the Koenenlager, where pre-Claudian fortifications were situated. Indeed, the type 28 fibulae were probably most current in the Lower Rhine region between AD 1 and 50. These three fibulae decorated with lion figures suggest a presence of people with a connection with Central Gaul in the pre-Claudian period.

Two brooches of variant 44a indicate an influence from the Lower Elbe region.\(^{1687}\) They can be roughly dated to AD 70-180. One fibula is of the Norico-Pannonian variant 14d, which can be roughly dated to AD 25-90, with an emphasis on the later part of this period.\(^{1688}\)

A connection with Britain is embodied by an enameled headstud brooch (variant 54a) from the Koenenlager.\(^{1689}\) According to Ivleva, this fibula type must have reached Neuss before c. AD 125. She puts forward names of multiple units attested in Britain as well as Neuss, but none of the suggestions seem satisfactory. Given that the fibula was found among the remains of buildings that have the outlay of cavalry barracks, it is tempting to associate the fibula with a member of an ala or a cohors equitata stationed within the legionary fortress or with a member of the legionary cavalry. Since the general starting date of variant 54a is AD 60, the fibula would then have travelled from Britain to the Lower Rhine region after AD 60 but before AD 125, although Heeren and Van der Feijst keep the option of a later date open. For the Flavian period it is assumed that legio VI Victrix occupied the Koenenlager together with an unknown ala.\(^{1690}\) Possibly, this cavalry unit was previously engaged on British soil, left the main

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\(^{1683}\) Simpson 2000, nos 5297 and 5336.


\(^{1685}\) This is the type 26 fibula published by Lehner in his report on the Koenenlager. Lehner 1904, 388, pl. XXIV, 3 (inv.no 9737).

\(^{1686}\) Simpson 2000, nos 2834, 2899 and 3844.

\(^{1687}\) Lehner 1904, 393, pl. XXIV, 17-18 (inv.nos 7825 and 6168).

\(^{1688}\) Lehner 1904, 390, pl. XXIV, 12 (inv.no 10754). Found in the baths.

\(^{1689}\) Lehner 1904, 399, no 73 (inv.no 7846). It was found among the remains of buildings 46-52, which have been interpreted as barracks for cavalrymen.

\(^{1690}\) Gechter 2007a.
island in the Neronian or early Flavian period and was then added to the garrison of Novaesium.\footnote{Ivleva (2012, 147, 269-270) suggests that the \emph{ala I Britannica} may have been present at Neuss for a short period of time, but there is no other evidence to corroborate its presence in Germania inferior. There are more candidates for bringing British artefacts to Neuss than only the members of this particular cavalry unit (cf. above, p. 287-288 for the situation at Bonn).} \footnote{Find nos. 5402 (complete) and 2981 (fragment), with only 5402 illustrated (pl. 1,1). In her 1977 article Simpson states that the find context of no 5402 is late Augustan to early Claudian, but in her 2000 study she writes that the fibula was ‘found between the two ditches of Camp A, and covered by Tiberian buildings’. Simpson 1977, 563; Simpson 2000, 8.} \footnote{Mackreth 1979, 58-60, fig. 25,1.} \footnote{See below, p. 301-302.} \footnote{Heeren & Van der Feijst 2017, 239.} \footnote{Riha 1994, 14.} \footnote{It is assumed that c. AD 30-50 the \emph{ala Gallorum Gemelliana} was stationed at Kaiseraugst. This would fit the date contextually appointed to the fibula. It is tempting to assume that the fibula once belonged to a member of this unit which was probably originally levied in Gallia Lugdunensis under Augustus. See Hartmann & Speidel 1991, 12-13, 22.}

Two fibulae of an Aucissa/Iturissa variant

Simpson discusses one complete fibula and one heavily fragmented fibula, both of copper alloy and both of the same type. They stand out for their complex safety-catches. The foot does not protrude. For the complete fibula an Augustan find context may be assumed (fig. 79). The other fragment is probably of the same age.\footnote{Ivleva (2012, 147, 269-270) suggests that the \emph{ala I Britannica} may have been present at Neuss for a short period of time, but there is no other evidence to corroborate its presence in Germania inferior. There are more candidates for bringing British artefacts to Neuss than only the members of this particular cavalry unit (cf. above, p. 287-288 for the situation at Bonn).} Simpson classifies this type of fibula as a variant of the \emph{Gitterfibel} or divided bow brooch. Its origin is unclear. Only one similar fibula with such a safety-catch was known to the author at that time, being a smaller fibula made of silver and discovered at the early-Claudian fort at Waddon Hill.\footnote{Ivleva (2012, 147, 269-270) suggests that the \emph{ala I Britannica} may have been present at Neuss for a short period of time, but there is no other evidence to corroborate its presence in Germania inferior. There are more candidates for bringing British artefacts to Neuss than only the members of this particular cavalry unit (cf. above, p. 287-288 for the situation at Bonn).} \footnote{Mackreth 1979, 58-60, fig. 25,1.} \footnote{Heeren & Van der Feijst 2017, 239.} \footnote{Riha 1994, 14.} \footnote{It is assumed that c. AD 30-50 the \emph{ala Gallorum Gemelliana} was stationed at Kaiseraugst. This would fit the date contextually appointed to the fibula. It is tempting to assume that the fibula once belonged to a member of this unit which was probably originally levied in Gallia Lugdunensis under Augustus. See Hartmann & Speidel 1991, 12-13, 22.}

In contrast with the Neuss piece, the Waddon Hill fibula has a large knob which rotated to open and close the catch. The Neuss fibula probably lost this knob over time. Moreover, the bow of the fibula from Waddon Hill is built up from two parts, two bows joined at intervals by crossbars which are marked at the outer side by small balls or knobs. This difference weakens the identification of the two Neuss fibulae with the Waddon Hill fibula. Although the silver Waddon Hill fibula may not be a parallel to the Neuss fibulae, it does strongly resemble another rare fibula from the Lower Rhine area, namely an equally silver fibula discovered at Nijmegen-Kops Plateau.\footnote{Ivleva (2012, 147, 269-270) suggests that the \emph{ala I Britannica} may have been present at Neuss for a short period of time, but there is no other evidence to corroborate its presence in Germania inferior. There are more candidates for bringing British artefacts to Neuss than only the members of this particular cavalry unit (cf. above, p. 287-288 for the situation at Bonn).} \footnote{Mackreth 1979, 58-60, fig. 25,1.} \footnote{Heeren & Van der Feijst 2017, 239.} \footnote{Riha 1994, 14.} \footnote{It is assumed that c. AD 30-50 the \emph{ala Gallorum Gemelliana} was stationed at Kaiseraugst. This would fit the date contextually appointed to the fibula. It is tempting to assume that the fibula once belonged to a member of this unit which was probably originally levied in Gallia Lugdunensis under Augustus. See Hartmann & Speidel 1991, 12-13, 22.} This will be discussed in detail below. For now, it must be noted that the shared feature of a safety-catch was probably also the reason why Heeren and Van der Feijst classified the two fibulae from Neuss together with the said fibula from the Kops Plateau as type 99\textsuperscript{j}.\footnote{Ivleva (2012, 147, 269-270) suggests that the \emph{ala I Britannica} may have been present at Neuss for a short period of time, but there is no other evidence to corroborate its presence in Germania inferior. There are more candidates for bringing British artefacts to Neuss than only the members of this particular cavalry unit (cf. above, p. 287-288 for the situation at Bonn).} \footnote{Mackreth 1979, 58-60, fig. 25,1.} \footnote{Heeren & Van der Feijst 2017, 239.} \footnote{Riha 1994, 14.} \footnote{It is assumed that c. AD 30-50 the \emph{ala Gallorum Gemelliana} was stationed at Kaiseraugst. This would fit the date contextually appointed to the fibula. It is tempting to assume that the fibula once belonged to a member of this unit which was probably originally levied in Gallia Lugdunensis under Augustus. See Hartmann & Speidel 1991, 12-13, 22.} With the understanding that main type 99 is used for unique pieces.

One fibula from Augst-Kaiseraugst displays the same construction as the one from Neuss. Riha classifies this unique piece as a \emph{Sonderform}, type 6.0.0.\footnote{Ivleva (2012, 147, 269-270) suggests that the \emph{ala I Britannica} may have been present at Neuss for a short period of time, but there is no other evidence to corroborate its presence in Germania inferior. There are more candidates for bringing British artefacts to Neuss than only the members of this particular cavalry unit (cf. above, p. 287-288 for the situation at Bonn).} \footnote{Mackreth 1979, 58-60, fig. 25,1.} \footnote{Heeren & Van der Feijst 2017, 239.} \footnote{Riha 1994, 14.} \footnote{It is assumed that c. AD 30-50 the \emph{ala Gallorum Gemelliana} was stationed at Kaiseraugst. This would fit the date contextually appointed to the fibula. It is tempting to assume that the fibula once belonged to a member of this unit which was probably originally levied in Gallia Lugdunensis under Augustus. See Hartmann & Speidel 1991, 12-13, 22.} It is described as a fibula with a highly arched, symmetrically decorated bow. Based on pottery found with the fibula it can be dated to AD 30-50.\footnote{Ivleva (2012, 147, 269-270) suggests that the \emph{ala I Britannica} may have been present at Neuss for a short period of time, but there is no other evidence to corroborate its presence in Germania inferior. There are more candidates for bringing British artefacts to Neuss than only the members of this particular cavalry unit (cf. above, p. 287-288 for the situation at Bonn).} Although knobs or studs are not present, Riha suggests that they might have decorated the hinge. This would fit the knobs on the Neuss piece. Related is a fibula listed in the online \emph{Artefacts} database.\footnote{Ivleva (2012, 147, 269-270) suggests that the \emph{ala I Britannica} may have been present at Neuss for a short period of time, but there is no other evidence to corroborate its presence in Germania inferior. There are more candidates for bringing British artefacts to Neuss than only the members of this particular cavalry unit (cf. above, p. 287-288 for the situation at Bonn).} \footnote{Mackreth 1979, 58-60, fig. 25,1.} \footnote{Heeren & Van der Feijst 2017, 239.} \footnote{Riha 1994, 14.} \footnote{It is assumed that c. AD 30-50 the \emph{ala Gallorum Gemelliana} was stationed at Kaiseraugst. This would fit the date contextually appointed to the fibula. It is tempting to assume that the fibula once belonged to a member of this unit which was probably originally levied in Gallia Lugdunensis under Augustus. See Hartmann & Speidel 1991, 12-13, 22.} This fibula is decorated with a curvy line on a ridge along the full length of the bow. Similar to the piece from Waddon Hill, it has a large knob to close the catch at the foot. Two smaller knobs decorate the head of the fibula. It is classified as an Aucissa variant with a safety-catch. This fibula is, according to the \emph{Artefacts} database, attested by four specimens, all reportedly originating from or found in France but unfortunately without archaeological
Nevertheless, it may be assumed that these fibulae probably came from Gaul. They are provisionally dated to the Claudio-Flavian period. By analogy, a Gaulish origin can be proposed for the fibulae from Neuss. The complete fibula was discovered between the two ditches of the so-called Camp A. According to new insights Camp A consisted of not one but two camps, Lager 1 and Lager 4, both dated to the Augustan period. It is assumed that Lager 1 was occupied by Gaulish auxiliary troops just before the start of the German campaigns in 12 BC. Auxiliary soldiers from the Iberian Peninsula may have garrisoned Lager 4 during the final phase of the Germanic campaigns, until AD 17 at the latest. Based on these reconstructions of the earliest phases of Novaesium, the description of the find context by Simpson and the supposed Gaulish origin of the fibula type, the two fibulae are most likely related to soldiers of Gaulish origin stationed temporarily at Neuss before 12 BC. If more weight is attached to the dates of the comparable fibulae from France and especially Augst, in combination with the Central Gaulish connection of the fibula type, then the fibula may rather have belonged to a member of the *ala Gallorum Picentiana*, which is assumed to have been stationed at Neuss between c. AD 43 and 70. This cavalry unit had originally been levied in Gaul, probably in Lugdunensis.

**Krefeld-Gellep**

For the site of the fort of Gelduba only two fibulae are listed, which both postdate the 1st century AD. From the cemetery, however, come 276 fibulae, with again a large share of later fibulae. 72 fibulae are datable to the 1st century AD, of which almost half consists of common wire brooches of type 45. Gaulish in origin are eight fibulae of type 16, constituting the second largest group after type 45. One is of variant 16b, which has a notable concentration in southern France. The other seven are all of variant 16a. They can generally be dated to the period between 20 BC and AD 80. Indirect Gaulish influence is indicated by two fibulae 26c, which are part of a grave assemblage dated to the Claudian period. The fibulae 26c may have been produced in the Nijmegen region.

A fibula recovered from another grave is of the Norico-Pannonian variant 14d. It most likely dates from the late Claudian or early Flavian period. A rather crudely shaped penannular or omega fibula of type 41 has been discovered in the fill of one of the horse graves that have been associated with the Batavian Revolt. This particular fibula can be additionally classified as a type Riha 8.1.3 or Feugère 30e1. According to the latter, this type of fibula will probably have reached the German frontier from the Iberian Peninsula, where it came into currency by the end of the Iron Age. The fibula found on the battlefield of Gelduba may therefore have been left there by someone with a connection with Pers. comm. M. Feugère. The four fibulae are provisionally dated between AD 40 and 100. Gechter 2007a. Cf. Gechter 2007a, 213.

1702 **Cf. Alföldy 1968, 16-17, 99-100; Holder 1980, 220-221.**

1703 **Variant 16a2: nos 3448/5, 4007/3, 4184/2 and 4184/3, 4917/2 and 5947/6. Variant 16a3: no 3443/3. Variant 16b: no 5051/3. Graves 3448 and 3443 are dated to the first half of the 2nd century AD, the others could be earlier. Cf. Pirling & Siepen 2006, 471-494.**

1704 **Grave 4395, 1a and 1b. Pirling & Siepen 2006, 320.**

1705 **See the general description of *BLC* type 26c, p. 282.**

1706 **No 4515/1. Pirling & Siepen 2006, 318.**

1707 **No 5740/1 (from grave 5740). Pirling & Siepen 2006, 331. The fibula was not included in the dataset of the *BLC* project. This may be due to the state of preservation, or publication.**

1708 **Cf. Feugère 1985, 420.**
the Iberian Peninsula, although the fibula type had already reached the height of its popularity by that time.

Two fibulae of main type 44 have been recovered from graves; one is a variant 44a, the other of variant 44b.1709 Both variants originate in the Lower Elbe region and date roughly to AD 70-180. However, the fibula of variant 44b can contextually be dated to the 2nd century AD.1710 This object is therefore not relevant for the study at hand. The fibula of variant 44a cannot be dated by the accompanying grave goods, for it appears that through post-depositional processes this fibula ended up in an Early Medieval grave.1711

Moers-Asberg

About 80 percent of the 298 1st-century fibulae from the fort and vicus at Moers-Asberg is divided among only five main types, namely types 30 (27%), 17 (15%), 16 (12%), 20 and 45 (each 11%). The fibulae of types 30, 17, 20 and 45 belong either to the typically military fibula types or to regionally especially popular types. An exception is variant 20f, the eye brooch related to the Preußische Nebenserie. Fibulae of this variant have a strong Germanic association. One specimen is recorded for Asberg. It can be roughly dated to the Claudio-Neronian period.1712

The fifth type dominant at Moers-Asberg is type 16, which is represented by a notably large group. Type 16 fibulae are Gaulish in origin. For Moers-Asberg, 34 examples of this main type are recorded. In general they can be dated to the period 20 BC-AD 80, but those of variant 16a4 may well be limited to the later part, from c. AD 40 onwards. Five brooches have been classified as such. Of variant 16b, which is linked to southern Gaul, four fibulae are listed for Moers-Asberg. With one 16c2 variant, the remaining 29 brooches of type 16 belong to the common 16a group of typical hook fibulae.1713

The next largest group counts seven fibulae of type 24. This type is considered to have been produced in Gaul, roughly between 15 BC and AD 50. One of the type 24 fibulae is classified as variant 24a4.1714 This particular variant is especially well attested around modern-day Paris and in the Moselle-Rhine region. A Gaulish signature is also appointed to three fibulae of type 26, one of variant 26a and two of variant 26b. Variant 26a dates to the Augustan period, variant 26b to AD 1-70. Also of Gaulish origin, or to be more precise from Central-East Gaul, is one fibula of variant 25b but with a ‘lion’ mounted on the arch.1715 It probably dates to AD 20-70.1716 Finally, one Gaulish fibula might be a Treveran product (type 13), and in addition early, with a date between c. 20 BC and AD 20.1717 The Gaulish types are relatively well represented at Asberg, and seem to indicate the presence of Gaulish men and women at Asberg during the whole Julio-Claudian period. The cavalrymen from the *ala I Tungrorum Frontoniana*, stationed at

1709 Variant 44a: 1986/15; 44b: 3931/2.
1710 Pirling & Siepen 2006, 332.
1711 Pirling 1974, 91-92, pl. 75, 15.
1712 Bechert 1973, no 280.
1714 Bechert 1973, no 115. The other type 24 fibulae are recorded under nos 107 (variant 24c1), 109 (variant 24a), 111 (variant 24a3), 113 (variant 24c), 114 (variant 24a1) and 166 (variant 24a3) in the same publication.
1715 Bechert 1973, 112. Bechert groups this particular piece with the Nertomarus fibulae.
1716 Artefacts entry FIB 4068; Feugère 1985, type 18a4.
1717 Bechert 1973, no 110.
Asberg from c. AD 41 until 70, could be responsible for the influx of the Gaulish fibula types just highlighted.

From further away comes firstly a fibula of variant 14d which points to the Norico-Pannonian territory.\(^{1718}\) It can be dated to AD 25-90, most likely between 60 and 90. From AD 70 until c. 90 the *ala Moesica* is considered to have been the main garrison of the fort.\(^ {1719}\) A connection between this unit and the region of Noricum and Pannonia is not obvious. It is suggested that the unit was stationed at Zurzach before the Batavian Revolt,\(^ {1720}\) but this is not in the area of origin of fibula variant 14d. Moreover, around AD 30 the ala seems to have been transferred to another, so far unknown station.\(^ {1721}\) Perhaps this station may then be sought in Noricum or Pannonia.

Five fibulae are classified as ‘omega fibulae’, type 41.\(^ {1722}\) These may originally have been introduced to the Lower Rhine region by military units coming from the Iberian Peninsula. The majority of the omega fibulae attested in the Low Countries date from AD 30-70, according to Heeren and Van der Feijst.\(^ {1723}\) The five specimens from Moers-Asberg could thus indicate the presence of Spanish soldiers in the late Tiberian-Neronian period. Perhaps these men occupied the fort prior to the arrival of the *ala I Tungrorum Frontoniana* c. AD 41. Although the general dating of the fibulae seems to contradict this, it might be possible that the omega fibulae were brought here by legionaries, who were stationed at Asberg in the Augustan period as members of legionary detachments. María Paz García-Bellido has suggested that soldiers of the *legio II Augusta* constituted at least part of the garrison at Asberg in the years between 13 BC and AD 4, possibly somewhat later.\(^ {1724}\) Before its transfer to the Rhine the legion had its main quarters in Hispania Tarraconensis. However, a connection between the omega fibulae and soldiers from the Iberian Peninsula cannot be proven without a more secure date for the fibulae.

A fibula of type 44 originates probably from the Elbgermanic region. Unfortunately, it cannot be securely dated other than between AD 50 and 200, with a high frequency between AD 70 and 180.\(^ {1725}\) Two fibulae of type 54 – one variant 54a and one variant 54b – indicate a link with Britannia, but this link might date to the 2nd rather than the 1st century AD.\(^ {1726}\) None of the units attested at Asberg is known to have been previously stationed in Britain.\(^ {1727}\) As already discussed under the heading of Bonn, Ivleva has suggested that the British fibulae found on military sites along the Lower Rhine could also have been left by units stopping over on their way to Germania superior, but her scenario is not very likely. As candidates for temporary garrisons of Asciburgium she names the *ala I Britannica* and the *cohors I Belgarum equitata*. Their hypothetical presence at Moers-Asberg should then be dated to the early Flavian period,\(^ {1728}\) but at the same time it is supposed that the *ala I Moesica* occupied the fort from AD 70 until c. 90. Perhaps some British-born men joined this ala, but since the fibulae were found on the location of a 2nd-century civilian settlement the fibulae most likely belonged to people living in a part of the vicus that

\(^{1718}\) Bechert 1973, 105 (inv.no 2552). The find circumstances or contexts are not described.

\(^{1719}\) Alföldy 1968, 24; Deschler-Erb 2012, 16.

\(^{1720}\) Alföldy 1968, 24.

\(^{1721}\) Hartmann & Speidel 1992, 13-14.

\(^{1722}\) Bechert 1973, nos 99, 101-104.

\(^{1723}\) Heeren & Van der Feijst 2017, 118.

\(^{1724}\) García-Bellido 2004, 150.

\(^{1725}\) Bechert 1973, no 266.

\(^{1726}\) Bechert 1973, nos 87 and 88. See also Ivleva 2012, 595 (no 3), 601 (no 10).

\(^{1727}\) Ivleva 2012, 75, 81, 167, 270-271.

\(^{1728}\) See above, n. 1655-1657.
continued in existence after the fort at Asberg had been abandoned in the reign of Domitian.\footnote{Bechert 1973, 26; cf. Deschler-Erb 2012, 14-16.}

\textit{Xanten-Vetera I}

Fibulae recovered from the Fürstenberg were not part of the \textit{BLC} database. Norbert Hanel has included 166 fibulae in his study of the remains of Vetera I. Based on the general chronology of the site, the fibulae in principle all date to the pre-Flavian era, but exceptions are possible. Over fifty percent belong to type 30, the typically military Alesia and Aucissa brooches (52%), followed by fibulae of types 45 (18%) and 17 (9%), both common regional types.

Several fibulae can be linked with Gaul. Three fibulae are grouped under main type 24. They are Gaulish in origin, and date roughly to the pre-Flavian period.\footnote{Habel 1995, nos B 46 (variant 24a3), B 48 (variant 24), B 49 (variant 24a2).} A variant 26a fibula constitutes a connection with Gaul in the Augustan period.\footnote{Hanel 1995, no B 50.} It is worth remembering that this kind of fibula was most likely worn by women. One collar brooch of type 13 represents a link with northern Gaul.\footnote{Hanel 1995, no B 45.} It is Augusto-Tiberian in date.

Possibly from the Iberian Peninsula comes a fibula of type 41.\footnote{Hanel 1995, no B 111.} Such fibulae in the shape of an omega had a long period of circulation. Although the find context does not provide a secure dating, it seems most likely that this specimen was deposited in AD 70 or before, since the fortress on the Fürstenberg was destroyed during the Batavian Revolt and not rebuilt. Heeren and Van der Feijst propose a general, Claudio-Neronian date for omega fibulae found in the Lower Rhine region,\footnote{Heeren & Van der Feijst 2017, 117-118.} but since the type is also attested at Haltern, an earlier date may apply. It is known that \textit{legio V Alaudae} was stationed in Mérida in Lusitania, from where it took part in the Cantabrian Wars (29-19 BC) before it moved to the Fürstenberg around AD 10. The omega fibula in question may be the material residue of this Spanish connection.

One fibula has a particular Germanic association. It concerns a Germanic trumpet head brooch, variant 52a.\footnote{Hanel 1995, no B 44.} Again, contextual data does not allow the piece to be securely dated, but the general chronology of the site implies a pre-Flavian date. This is corroborated by the typology of Böhme-Schönberger. The fibula from Vetera I matches her subtype A 101a, which starts around the middle of the 1st century AD and is succeeded by subtype A 101b in the first half of the 2nd century AD.\footnote{See the general description of \textit{BLC} type 52, n. 1645.}

\textit{Altkalkar}

The database contains 23 fibulae from the fort of Burginatium and the neighbouring vicus.\footnote{Boelicke 1994.} This assemblage goes back to Boelicke’s publication from 1994. In 2000, these fibulae from Altkalkar were published again, together with twelve additional, not previously published fibulae.\footnote{Boelicke, Brandl & Liesen 2000, 31, 62-64 (nos B/22-B/56), pl. 6-7.} According to Boelicke, only four of these 35 fibulae cannot be dated to the 1st century AD. Although the general number is too low for statistical analysis to isolate dominant types
or notable patterns, there are some relatively ‘exotic’ types, which are worth highlighting here.

Six of the 35 fibulae have a Gaulish association. Two of them are of type 24, variants 24a1 and 24a3. The remaining four are large thistle fibulae, all variant 26b. For the 24a variants, evidence for production has been identified in Central Gaul. Variant 24a1 seems to be older than variant 24a3. Whereas for 24a3 a circulation from 15 BC until AD 50 is assumed, variant 24a1 appears to have been used in 30 BC-AD 1, according to Heeren and Van der Feijst.1739 This would make this fibula one of the earliest finds from Altkalkar. The four brooches of variant 26b have their origin in Gaul as well. From the late Augustan period onwards they may be considered to be part of female dress, at least when encountered in the Celtic western provinces.1740 They continue in use until the Flavian period, with their greatest popularity in the Claudian period.1741 Feugère notes that thistle fibulae with a rhomboid plate and those with a decoration in the shape of a lion on top of the plate seem to date to the 20s and 30s AD.1742 Together with the Langton Down fibulae the thistle fibulae signal the presence of Gaulish people in Altkalkar in the pre-Flavian period, with an apparent focus in the Claudian period.

A small number of fibulae discovered in the 19th century has been published in less detail and long before the 35 brooches which were just discussed. From the drawings in the 1836 publication it can be deduced that one of these fibulae is of a 1st-century type, namely a type 34, variant 34a.1743 Main type 34 is a hinged variant of the collar brooch. It appears to be a further development, into a supra-regional type, of types 13 and 24.1744 The large variant 34a is generally dated to the pre-Flavian period (c. AD 1-70).1745 It embodies a further, albeit indirect, connection with Gaul.

Influence from Gaul is further substantiated by other finds. Of the cemeteries that must have been situated close to the fort and vicus, only two almost complete graves are known.1746 Unfortunately, the grave inventories have become dispersed since their discovery, but of one grave a Gallo-Belgic vessel, a small oil lamp and a large rosette fibula have been preserved together. The vessel is a terra nigra beaker, type P51 following Deru’s typology. It can be dated to c. AD 40-90.1747 The oil lamp is of a fairly rare type, a mixture of Loeschcke types VI and VII, for which the best parallels can be found in Trier. This type is here attested in graves dating from the Claudio-Neronian period until the early 2nd century.1748 The fibula of type 26c is dated by Heeren and Van der Feijst to c. AD 40-70. Consequently, the combination of the ceramic vessel, oil lamp and in particular the fibula suggests a date between AD 40 and 70. The three items have a particular northern Gaulish association, pointing especially in the direction of Trier. As it happens, a Treveran cavalryman is attested in a grave inscription found at Altkalkar.1749 He served with the *ala Noricorum*, which is assumed to

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1739  Heeren & Van der Feijst 2017, 82-85.
1740  Böhme-Schönberger 2002, esp. 220.
1741  Heeren & Van der Feijst 2017, 88-90.
1742  Feugère 1985, 292.
1743  Janssen 1836, 127, pl. X, 1. Please note that the type 24a1 fibula depicted on the same plate (pl. X, 6) has not been found at Altkalkar but at nearby Moyland.
1744  Cf. Heeren & Van der Feijst 2017, 279.
1745  Heeren & Van der Feijst 2017, 105-106.
1746  They are part of private collections, which are not published, and thus not included in the *BLC* database. Pers. comm. S. Bödecker.
1747  Deru 1996, 128-129.
1748  Goethert-Polaschek 1985, 147-148, pl. 68, esp. no 633 (type XV).
1749  *CIL* XIII 8670. At nearby Xanten a grave stone was reportedly found, which had been set up for a Treveran cavalryman serving in the *ala Vocontiorum* (*CIL* XIII 8655). Krier (1981, 112) dates this grave monument to the 70s of the 1st century AD.
have been stationed at Altkalkar between c. AD 69 and 83. However, the grave monument has stylistically been dated to around AD 100.\textsuperscript{1750} Even if the grave monument was put up in the early Flavian period, the Gaulish pottery and fibulae can only, hypothetically, have belonged to the Treveran cavalryman in the \textit{ala Noricorum} if he had died around or shortly after AD 70. This chronological incongruity allows, on the other hand, for the possibility that for instance the \textit{ala Treverorum} may have been stationed at Altkalkar in the Claudio-Neronian period. It is certain that this cavalry unit was part of the Lower German army in AD 69, but it is not known where it was stationed.\textsuperscript{1751} It may have been Altkalkar, but secure evidence for this hypothesis is not available.

Fragments of Arretine terra sigillata discovered on the foothill called Pierenberg indicate a late-Augustan or early-Tiberian foundation of a military installation on the Monreberg, southwest of the later fort. It is not known which unit or units garrisoned this short-lived camp, but the characteristics of the plan of the fort suggest that it may have been a combination of legionary and auxiliary soldiers.\textsuperscript{1752} Perhaps one or more of them came from Gaul, given the presence of early variant 24a1, which has a Gaulish association. From the Claudian period onwards, a fortification was situated at the foot of the Monreberg, at \textit{Bornsches Feld}.\textsuperscript{1753} Again it is not known which unit or units were the garrison of this fort in the years up to AD 70. Perhaps they may be sought among auxiliary units originally raised in Gaul. Since the fort housed subsequent alae from c. AD 69 onwards, it is likely that the first occupying unit was an ala as well, perhaps a northern Gaulish ala or an ala in which northern Gaulish cavalrymen served, considering the relatively high number of variant 26b fibulae collected at Altkalkar.

\textit{Till-Steincheshof}

Of the seven identifiable fibulae recovered from the site of the auxiliary fort,\textsuperscript{1754} one 1st-century piece can be appointed to a specific region of origin outside of the Lower Rhine area. This particular fibula belongs to main type 24, variant 24c1. Variant 24c1 shows less decoration than variant 24c2, which is known as the Nertomarus type. The fibula from Till-Steincheshof is decorated with pseudo-filigree. It can be dated to c. AD 15-50. Main type 24 has a general Gaulish signature.\textsuperscript{1755}

\textit{Nijmegen-Kops Plateau}

The fibulae collected during the 1986-1995 excavations constitute one of the largest groups investigated in this analysis.\textsuperscript{1756} Their total number included in the \textit{BLC} database amounts to 672 pieces. To this have been added 14 fibulae found on the periphery of supposed annexes to the fort. 619 fibulae have been classified as Early Roman. This high number is not surprising given the general chronology of the site. The spectrum is dominated by fibulae of type 30 (29%), followed by types 20 (13%) and 17 (11%). All three categories are most common in the

\begin{itemize}
    \item \textsuperscript{1750} This is based on the relief with a so-called \textit{Totenmahlszene} above the inscription. Krier 1981, 113-114.
    \item \textsuperscript{1751} Alföldy 1968, 37-38.
    \item \textsuperscript{1752} Bödecker 2006b.
    \item \textsuperscript{1753} Bödecker 2006a.
    \item \textsuperscript{1754} Drechsler 2014, 176-177, fig. 5.
    \item \textsuperscript{1755} Heeren & Van der Feijst 2017, 82-85.
    \item \textsuperscript{1756} They have been separately published, see Heeren & Van der Feijst 2014.
\end{itemize}
Augusto-Tiberian period, with type 30 having a strong military signature, while 20 and 17 are more regional types.

Fibulae with a Gaulish association constitute the largest group among the ‘exotic’ fibulae. Of the main type 24, in total 38 fibulae have been recovered at the Kops Plateau (6%). This is a relatively large number. One belongs to variant 24a4,1757 dated roughly to 15 BC-AD 50, in line with subtype 24a in general.1758 It is Gaulish in origin, with notable concentrations around modern-day Paris and in the Moselle-Rhine area. The six fibulae of variant 24a5 might rather be imitations, made in the region after Gaulish examples of subtype 24a.1770 The remaining 31 pieces are to be considered as generally Gaulish in origin and pre-Flavian in date.1760 Equally Gaulish are fibulae of type 16, variant 16a, to which 22 brooches can be assigned. Four of these are of the later 16a4 variant, which can be dated to c. AD 40-80. To the others a more general date of 20 BC-AD 80 applies, although their main popularity may be assumed for AD 1-60. One fibula of type 16 is of the variant 16b, which is associated with southern Gaul.1781 Two remaining fibula could not be further specified than as of type 16.1762

Variant 25a has its origin particularly in Central-East Gaul. Eight pieces of this variant have been found on the Kops Plateau.1763 They can be dated to the Augustan period.

A further Gaulish association is embodied by thistle fibulae of variants 26a and 26b, with 26a being earlier (30 BC-AD 15) than 26b (AD 1-70). For the Kops Plateau, two brooches of variant 26a have been listed and seven of variant 26b. Two further examples could not be further specified than as of main type 26.1764 All together they suggest the presence of people, presumably all or most of them women, with a Gaulish connection in the Augustan period, and probably also in the years up until AD 70, since the use of 26b peaked in the Claudian period.

Six fibulae of type 28 are recorded for the Kops Plateau and its direct vicinity.1765 These fibulae, decorated with lion figures, are Central Gaulish in origin and most likely date to the first half of the 1st century AD, although they might have been used until c. AD 70. Fibulae of this type are quite rare in the Low Countries. Uncommon as well are two fibulae of type 29, one of variant 29a and one of variant 29b. These also seem to point at a Gaulish connection in the pre-Flavian

1757 Find no 269/030. Find without context.
1758 An extension into the Flavian period is possible, but not likely for this particular piece from the Kops Plateau.
1759 Find nos 270/030, 311/080, 312/001, 361/175, 396/061 and 405/001.
1761 Strikingly, this is roughly the same region where three hand-thrown pots were made, of which fragments have been discovered on the Kops Plateau. They have contextually been dated to the last two decades of the 1st century BC. See below, n. 1992-1993.
1764 Variant 26a: find nos 253/053 and 426/118; Variant 26b: find nos 306/025, 361/043, 381/059, 394/056, 396/196, 418/092 and 422/001; main type 26: 381/072 and 397/026.
1765 Four fibulae were collected during the 1985-1995 excavations on the Kops Plateau: find nos 296/025, 383/226, 397/007 and 451/104. Two are from the 2002-2003 excavations on the so-called Grote Kopse Hof, directly east of the Kops Plateau: find nos Khl 4-141 and 6-035. For the latter, see Van Enckevort & Wildenberg 2009, 40, fig. 19.9-10. None of these finds could be dated securely from their find contexts.
period, but with caution, since the origin of this rare type could not yet be ascertained with certainty.\footnote{1766}

A smaller number of fibulae originate from further away. One fibula is of the Norico-Pannonian variant 14b, which can be dated to c. AD 15-70.\footnote{1767} The discovery of two fibulae of type 15, which has its main distribution in Central Gaul and Switzerland, evidences the presence of people with a Gaulish or Helvetian connection in the Augusto-Tiberian period.\footnote{1768}

Two eye brooches of variant 20f are related to the Preußische Nebenserie. This separate category has its main distribution in modern-day Poland and the Baltic states, although production has so far only been proven at Augsburg in southern Germany. The pieces from the Kops Plateau probably date to the Claudio-Neronian period.\footnote{1769} They suggest the presence of people with a Germanic background.

The site has yielded no less than twelve omega fibulae of type 41.\footnote{1770} Although their origin is disputed, it is here maintained that they might have belonged to people with a connection with the Iberian Peninsula. Their respective find contexts could not provide secure dating information, but the general dating of the site places these pieces in the pre-Flavian period. Since the type is also represented among the fibulae found at Haltern, a pre-Claudian date should be considered.\footnote{1771}

A fibula of the Vippachedelhausen variant

The fibula in question is recorded in the BLC database as one of type 17, variant 17a2 (fig. 80).\footnote{1772} Indeed, the bend in the bow and the short curve make it akin to the Knickfibel of type 17, but the disc at the foot and the triangular decorations on the head classify this fibula as a type related to Almgren type 22a.\footnote{1773} Jan Bemman describes two fibula types that are related to the Almgren type 22a, the Bebra\footnote{1774} variant and the Vippachedelhausen\footnote{1775} variant. Both have an Elbgermanic signature and are dated to the late Augustan-early Tiberian period (c. 15 BC-AD 15). They were worn by men as well as women.\footnote{1776} The fibula from the Kops Plateau is very similar to a piece found at Echzell, which is grouped with the Vippachedelhausen variant.\footnote{1777} It can thus be regarded as an

\textbf{Fig. 80 Fibula of the Vippachedelhausen variant from the Kops Plateau. Heeren & Van der Feijst 2014, fig. 2: no 047.}

\textbf{Fig. 80 Fibula of the Vippachedelhausen variant from the Kops Plateau. Heeren & Van der Feijst 2014, fig. 2: no 047.}

\footnotetext[1766]{Variant 29a: find no 383/035; variant 29b: find no 389/050b. Both finds without context.}
\footnotetext[1767]{Find no 463/013. It comes from a disturbed context.}
\footnotetext[1768]{Find no 323/092 is a find without context. Find no 401/011 comes from the upper fill of what seems to be an Augustan pit.}
\footnotetext[1769]{Find nos 373/081 and 306/068. These finds could not be contextually dated.}
\footnotetext[1770]{Find nos 286/139 (two pieces), 293/076, 305/126, 306/025, 306/032, 306/201, 389/050d, 396/157, 401/017, 417/047 and 427/185. None of these pieces could contextually be securely dated.}
\footnotetext[1771]{Heeren and Van der Feijst (2017, 117-118) maintain a general date of AD 40-70 for omega fibulae found in the Low Countries.}
\footnotetext[1772]{Find no 292/210. See Heeren & Van der Feijst 2014, no 47. The fibula comes from a post-hole which is dated to the Augustan-early Tiberian period.}
\footnotetext[1773]{I thank S. Heeren for bringing this to my attention.}
\footnotetext[1774]{Bebra is a town in Hessia, Central Germany. A fibula of the Bebra variant has been found at Xanten-pre-colonia. See Boelicke 2002, 65, no 601. This fibula was found together with fibula no 1090 (Boelicke 2002, 124), an early plate brooch dated to the Claudio-Neronian period.}
\footnotetext[1775]{Vippachedelhausen is a municipality in Thuringia, Central Germany.}
\footnotetext[1776]{Bemman 2007, esp. 286.}
\footnotetext[1777]{Bemman (2007, 281, n. 7, fig. 6,12) notes that the Echzell fibula must be an older find predating the fort of Echzell, which is assumed to have been founded around AD 90.}
indication for the presence of people with a northern, Elbgermanic connection in the late Augustan or early Tiberian period.

An Aucissa/Iturissa variant

This silver fibula has a semi-circular bow consisting of two parts connected by bars, or rather a sequence of small globules stuck together, and is decorated with small knobs or studs along the bow on both sides (fig. 81). The fibula has been classified as an Aucissa/Iturissa variant without a foot (type 99j). Similar to two specimens from Neuss, it closed with a safety-catch. Two further knobs are placed on the outer ends of the hinge (or spring?).

This fibula appears to be a Sonderform, with only one known parallel from a Roman site. This equally silver specimen comes from Britannia. Differences between the two can nevertheless be found, especially in the number of knobs that are placed along the bow on both sides. The fibula in question has been found at Waddon Hill, a site occupied by Roman military forces from roughly AD 48 to 64. Nothing denies a similar, Claudio-Neronian date for the brooch from the Kops Plateau.

The presence of this Sonderform at Waddon Hill may shed some light on the origin or background of this type. It is assumed that the site was occupied by both legionary and auxiliary soldiers. Among them may have been a mounted force. The discovery at Waddon Hill of a copper-alloy statuette in the shape of a three-horned bull indicates a Gaulish connection. The three-horned bull ranks as the visual representation of the Celtic god Tarvus Trigaranus. The main distribution area of images of the three-horned bull is eastern France. The image of a three-horned bull’s head also seems to have adorned the standard (vexillum) of the Ala Gallorum Longiniana, as depicted on a gravestone from Bonn set up for one of its members. The statuette from Waddon Hill could therefore indicate the presence of Gaulish people.

This supposed Gaulish connection strengthens the idea of a Gaulish origin for the silver fibula as well. This idea is based on the similarity in basic design, especially the safety-catch construction, between the fibulae from Waddon Hill and the Kops Plateau and two fibulae from Neuss. Although the two fibulae from Neuss lack the split bow and the decorative studs, the semi-circular shape and the absence of a protruding foot hint at a common ancestry. As the two fibulae from Neuss are related to fibulae attested in France and eastern Switzerland, an origin from this region may also be suggested for the fibulae from the Kops Plateau and Waddon Hill.

Based on the present state of knowledge, the silver fibula from the Kops Plateau is most likely related to somebody with a Gaulish background or connection. The use of precious metal suggests that he or she enjoyed a higher status, perhaps

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1778 Find no 377/001 (stray find); Heeren & Van der Feijst 2014, cat.no 520; Heeren & Van der Feijst 2017, 239.
1779 See above, p. 292-293.
1780 Mackreth 1979, 58-60, fig. 25,1.
1781 The Kops Plateau piece shows a smaller number of decorative knobs.
1782 Webster 1979, 54-56.
1783 Webster 1979, 55-56.
1784 Webster 1960, 104-108, fig. 9,65.
1785 A statuette similar to the one from Waddon Hill has been discovered at Carnuntum in Austria. This is so far the most eastern attestation of this type. Cf. https://www.carnuntum-db.at/objektdetail.aspx?obj=10547, Jobst 1992, 373.
1787 Cf. Webster 1960, 108.
an officer or one of his family members. Given the rarity of this fibula type and at the same time the resemblance between the Kops Plateau and the Waddon Hill fibulae, the two pieces might well have been lost by people closely related, perhaps even the same person. The Claudio-Neronian date of the Waddon Hill fibula leads then to the hypothesis that there might have been a direct transfer of people from the Kops Plateau across the Channel, to Waddon Hill. This would tie in with the deployment of Lower German army units for the British invasion of AD 43.

A possible candidate is the *ala Gallorum et Thracum Classiana civium Romanorum*. Military diplomas tell us that this compound unit consisting of Gaulish and Thracian cavalrymen was stationed in Britain in AD 105 and 122. The unit may have arrived there under Claudius, Nero or Domitian. It is not known where it was stationed. This could have been at Waddon Hill, temporarily and in the beginning. Although it is supposed the unit was created in the pre-Flavian period for service in the Danube region or the East, it cannot be ruled out that it first operated in Germania inferior. There is epigraphic evidence for its presence in Germania inferior, but these inscriptions most likely date from the 3rd century.\(^{178}\) It is tempting to regard an iron horse bit with wheels around the mouthpiece, typical for the Danubian region, found at Waddon Hill as evidence for the Thracian element of this unit.\(^{178}\)

Another candidate is the *ala Gallorum Proculeiana*. Military diplomas and inscriptions evidence the unit’s presence in Britannia in the late 1st and the 2nd century AD.\(^{179}\) Its name suggests that it was created under Augustus in Gaul, probably in Gallia Lugdunensis.\(^{179}\) Where it was stationed before it came to Britannia is not known, but it has been suggested that the unit was part of the Claudian invasion force. This would leave it possible that the unit was in Germania inferior before it moved to Britannia. Waddon Hill may, again, have been the first British station.

*Nijmegen-Hunerberg*

The main body of fibulae found on the Hunerberg consists of 488 pieces collected during the 1987-1997 excavations. To this group 85 pieces found on other occasions can be added. Of the total of 573 fibulae, 477 have been identified by type and roughly dated to the 1st century AD. The largest group by far is constituted by fibulae of type 45 (42%). The other types have shares of less than 10%.\(^{179}\) The strong Flavio-Trajanic component can explain the relatively small numbers of types 30, 20 and 17, which are so well represented on the adjacent Kops Plateau.

Fibulae of the main type 14 are present with nine pieces. Six are of the variant 14d,\(^{179}\) in particular associated with female dress, two of the variant 14b and one of the rare variant 14e.\(^{179}\) All of these strongly profiled brooches have a tight association with the Alpine or Norico-Pannonian region. However, their date ranges do not overlap completely. Variant 14e will be discussed in more detail in a separate section below, but 14b and 14d also seem to differ somewhat in

\(^{178}\) Alföldy 1968, 17-19.
\(^{179}\) For this type of horse bit, see p. 237-238. For the Waddon Hill horse bit, see Webster 1965, 147, 149, no 28.
\(^{1790}\) Holder 1980, 221; Spaul 1994, 55-57.
\(^{1791}\) Holder 1980, 220-221.
\(^{1792}\) As an illustration: the second largest group is type 33 with a share of 9%.
\(^{1793}\) Find nos CA.1988.18.1050.m, CA.1989.21.2837.m, CA.0.3029.m, CA.1990.29.3350.m, CA.1990.32.3752.m and CA.1993.97.6843.m.
\(^{1794}\) Find nos CA.1991.40.5290.m and CA.1993.100.7330.m.
chronology. Where 14b is generally dated to AD 15-70, 14d is somewhat later, with a general date between AD 25 and 90. Perhaps it can be concluded, as already suggested above, that both variants came to the Hunerberg in AD 70 with people from *legio X Gemina*, which had previously been stationed at Carnuntum in AD 63-68.\(^{1796}\)

A fibula of type 13 comes from Gaul, possibly the Treveran region, and is pre-eminently associated with female dress.\(^{1797}\) It dates from c. 20 BC-AD 20. It could be related to the early Augustan occupation, but not necessarily; a connection with somewhat later activities is also possible. The latter is supported by the Gaulish connection of a thistle fibula of variant 26b, which is also primarily connected with female dress.\(^{1798}\) This type of fibula appears in the late Augustan period, but is predominantly Claudio-Neronian in date. Thus, it predates the Flavian occupation of the Hunerberg, but it appears also to be later than the early-Augustan camp that was situated here. It may have been one of the latest specimens made, which arrived at the Hunerberg with the new Flavian contingent and its followers, or there was perhaps some activity in the years between the early Augustan and the Flavian military occupation.\(^{1799}\) The latter scenario becomes more likely when one other fibula of a Gaulish signature is considered. It is a type 23, presumably from northern Gaul and cautiously dated to the Claudio-Neronian period, although a Flavian date is also possible.\(^{1800}\) Type 24 is an originally Gaulish type, but the one fibula of variant 24a5 found on the Hunerberg might have been regionally produced.\(^{1801}\) The other five variant 24a fibulae recovered here are generally Gaulish in origin.\(^{1802}\) All 24a fibulae date from the pre-Flavian period.

Also Gaulish in origin and generally dated to 20 BC-AD 80 is type 16. Twenty brooches of this type have been found on the Hunerberg. Three of these belong to variant 16b, which points in the direction of southern France. The others are of the more common 16a variants.\(^{1803}\) Variant 25b has an origin in Central-East Gaul. Of this pre-Flavian variant one fibula is recorded in the *BLC* database as a find from the Hunerberg.\(^{1804}\) Finally, a more general Gaulish association is assumed for a fibula of type 29. It probably dates from the pre-Flavian period, but a more secure dating could not be given for this rare type.\(^{1805}\)

A British association applies to three hook fibulae of type 36. They all come from Flavian contexts.\(^{1806}\) These fibulae from Britain, where the type has been found in large numbers, are generally dated to the period between c. AD 50 and 70. If this

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1796 Cf. the general description of *BLC* type 14d, p. 275.
1797 Find no CA.1991.46.5097.m.
1798 Find no CA.1989.23.2443.m. Please note that this particular fibula has much in common with the earlier variant 26a, but since it does not have a fully closed spring cover, it has been labelled as variant 26b. Still, it is probably one of the earliest within the 26b spectrum, going by the strong similarity with variant 26a. If so, it may most likely be dated to the late Augustan period.
1799 Please note that thistle fibulae are especially associated with female dress.
1800 Find nos CA.1991.46.5086.m. According to the database, CA.1995.86.8940.m is also of type 23, but on closer inspection I prefer to label this fibula as of type 34 (variant 34a).
1801 Find no CA.1987.11.118.mc.
1802 Find nos CA.1988.15.1296.m (variant 24a2), CA.1991.41.4687.m (variant 24a1), CA.1993.100.7340.m (variant 24a2); inv.no e 1937 (RMO collection; two pieces, both variant 24a2).
1804 No E.IV.126, part of the ancient municipal collection.
1806 Find nos CA.1987.13.240.mg (late Flavian pit), CA.1988.20.1816.m (Flavian pit) and CA.1995.86.8870.m (Flavian layer).
date is transferred to the pieces recovered at the Hunerberg, they would predate the occupation phase of the canabae outside the Flavian fortress. However, some assume a longer date range for the hook fibulae found in Britannia, extending into the 2nd century AD. Either these fibulae were longer in use than is assumed, or they are related to activities that took place on site before a new legionary fortress and canabae were built after the Batavian Revolt. As mentioned above, there have been discovered a number of Gaulish fibulae on the Hunerberg (e.g. types 13, 23 and 26b) which suggest the presence of especially women between the early Augustan and Flavian periods. British hook fibulae were also worn by women.

Later in date but also products from Britain are one fibula type 54 and two fibulae type 57, variant 57c2. In general, these fibulae are deemed not to be earlier than AD 60/70. The type 54 fibula was found in the fill of a Flavian pit. During the Flavio-Trajanic period, legio X Gemina garrisoned the fort on the Hunerberg. This legion had not been to Britannia before it arrived at Nijmegen. Ivleva assessed several scenarios that could explain the presence of these British-type fibulae on the Hunerberg. Her final explanation is not completely satisfactory. With the early type 36 fibulae still unknown to Ivleva, she ultimately proposed that a detachment consisting of troops previously stationed in Britannia, epigraphically known as the vexillatio Britannica, arrived on the Hunerberg around AD 104, after legio X Gemina had vacated the Hunerberg fortress. However, the presence of the early Colchester derivatives type 36 in Flavian contexts indicates that people with a British connection may have been present on the Hunerberg already before AD 104. This brings back into view a scenario already proposed by Hendrik Brunsting and Dé Steures and reconsidered by Ivleva, that the vexillatio Britannica attested through tile stamps on the Hunerberg was stationed there between c. AD 89 and 104. Yet, this scenario is seriously hindered by the practical objection that the fortress probably did not offer enough room for even a complete legion, let alone the legio X Gemina and the vexillatio Britannica together.

Considering that with the vexillatio Britannica an influx of people from Britannia is already attested for Nijmegen, the most obvious explanation for the presence of these British fibulae at Nijmegen-Hunerberg would be that they had been brought there by people arriving around AD 104. The recorded Flavian find contexts of all British fibulae, excluding the stray finds, contradicts this, but since a separate label for ‘Trajanic’ is not used in the pertaining database, it is possible that they have been deposited after the Flavian period. Alternatively, civilian people, living in the canabae, could also have been responsible for transporting the British fibulae to the Hunerberg. Since all the above-mentioned British fibulae have been found in and among features of the canabae west of the Flavian fortress, it must certainly be considered that not soldiers but civilians brought them from Britannia to Nijmegen. Whether this transport over such

1807  Variant 54a: find no CA.1988.20.1755.m (Flavian pit). Variant 57c2: find nos CA.0000.00.0000 and CA.1991.43.4851.m (both stray finds).
1808  Ivleva 2012, 258-265.
1809  Ivleva 2012, esp. 262.
1810  Fischer (2012, 274) classifies forts smaller than 20 ha as forts occupied by vexillationes, detachments. The Flavian fort on the Hunerberg measured c. 17 ha.
1811  Compare the situation at Moers-Asberg (see n. 1729).
a considerable distance is indeed unrelated to a movement of military troops, which seems unusual for inhabitants of a canabae, remains unclear.

Three fibulae of type 41 may originate from the Iberian Peninsula, although their origin is disputed. One of them comes from a Flavian find context. In a reference to the fibula found on the eastern side of the Hunerberg, an earlier find of another omega fibula is mentioned. Apparently it was found in a pit situated in the intervallum of phase 4 of the Nijmegen legionary fortress. This suggests a Flavian date for this omega fibula found on the Hunerberg, but it is underlined that finds from this and similar pits are difficult to date. It would not be surprising to find fibulae with a Spanish association on the Hunerberg, since legio X Gemina was stationed on the Iberian Peninsula for almost a century before it came to Nijmegen in AD 70/71, after a short stay in Carnuntum c. AD 63-68. Heeren and Van der Feijst presume a main date between AD 40 and 70 for their type 41. It is very well possible that soldiers or their relatives acquired omega fibulae on the Iberian Peninsula right at the end of this period, before they left for the Lower Rhine area. Alternatively, they may have obtained the type 41 fibulae prior to AD 63. In that case, they must have held on to them for over seven years. Although one might think that brooches as objects of daily use were prone to damage or loss, evidence for repairs and signs of heavy wear on fibulae suggest that they could have long lives.

Several fibulae present a connection with northern Germania. One fibula is classified as of variant 20f, which seems to be related to the so-called Preußische Nebenserie. The distribution of this category concentrates in modern-day Poland and the Baltic states. It comes from a grave that is dated to the Claudio-Neronian period. Three brooches can be grouped under main type 44, which originates in the Lower Elbe region and was most current from AD 70 to 180. Two of these are of the variant 44a, one of the variant 44b. The fibula of variant 44b bears a strong resemblance to a fibula of the same type from Krefeld-Gellep, and thus probably dates from the 2nd century AD, as the one from Krefeld-Gellep does. This disqualifies it for the research at hand. A fibula of the main type 52, variant 52a, also has a northern Germanic signature. It stands out for the combined use of copper alloy and silver. This trumpet head fibula can be dated to the second half of the 1st century AD. Its full bow disc is a feature typical for the early specimens.

A high-arched fibula with a bow-knot

On the Hunerberg the only example of a type 14e fibula attested in the Low Countries was discovered during the 1987-1997 excavations. This type

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1812 Two fibulae were recovered during the 1987-1997 excavations: find nos CA.1990.36.4094.m (stray find) and CA.1991.47.6065.m (from a Flavian pit). The third fibula comes from the eastern part of the Hunerberg, excavated in 2004: find no B04-6.008. The fibula could not be contextually dated. Cf. Heirbaut & Van Eeckevort 2009, 64 and fig. 6.1.11.
1813 Find no CA.1973.195.m. Bogaers & Haalebos et al. 1976, 188, no 12; Bogaers & Haalebos et al. 1980, 95-96, fig. 34, 1.12. This fibula seems not to be included in the original BLC database.
1814 See the main description of BLC type 41, n. 1639.
1815 For repair, see Heeren & Van der Feijst 2017, 355-356. For long lives of crossbow brooches in particular, see Cool 2010, 39-41.
1816 Find no CA.1995.84.8658.m. Other grave goods from the same grave are a smooth ware flagon Stuart 105 and a polished handmade pot. The flagon indicates a date in the Claudio-Neronian period. Other graves discovered in the vicinity are in general dated to the third quarter of the 1st century AD. See Polak 2014a, 19.
1817 Find no CA.1989.00.3229.mam. See for the parallel n. 1709.
1818 Find no CA.1991.00.5542. The BLC database lists the find number as 5282, but according to the excavation documentation it should be 5542.
1819 See n. 1645.
stands apart from the rest of the 14 subtypes because of its high, almost round arch and its very broad spring (fig. 82). This fibula from Nijmegen seems to be of southern Alpine origin, made in the tradition of the so-called *Armbrustspiralfibel* II. Its main circulation lies between the end of the 1st century BC and the beginning of the 2nd century AD. Considering that among the fibulae of the Hunerberg there have been counted already eight fibulae with a Norico-Pannonian signature, roughly dating from the Tiberio-early Flavian period, it is likely that this fibula type 14e is of similar age.

A pincer fibula

One fibula found at the Hunerberg belongs to the category of pincer brooches (type 42; fig. 83). These are one of the few types of fibulae relatively common in Italy. In origin it is considered to be a truely Roman fibula. The presence of this fibula at Nijmegen may therefore be conceived as indicative for the presence of someone from the heartland of the Empire. Pincer brooches have a long currency period, and are difficult to date on their own. The later specimens may have been produced locally, outside of Italy. According to Heeren and Van der Feijst, the piece from Nijmegen was found among the remains of the Augustan camp, and can, as an early piece, be appointed to one of the legionaries stationed here in the early Augustan period.

A fibula possibly of the Jezerine II type

Possibly Augustan is a fibula which shows features of the so-called Jezerine II type fibulae. It has the same broad bow decorated with longitudinal grooves (fig. 84). However, since the foot of this particular piece is missing, it cannot be stated with certainty that this fibula belongs to the Jezerine II fibulae. If the identification is accepted, then the fibula suggests the presence of people with a background in the Mediterranean on the Hunerberg in the Augustan period. Fibulae of the Jezerine group have their main distribution in northern Italy, southern France and the Balkans. They may be dated to 30 BC-AD 30, although Feugère maintains a date of 20 BC-AD 20 for fibulae of this type found in Gaul. The occupation of the early Augustan camp (19-16/12 BC) on the Hunerberg falls within this period.

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1821 Contra Heeren and Van der Feijst (2017, 57, n. 136), who name type Beltz Var. J as a comparison, but the Nijmegen fibula distinguishes itself clearly by the construction of its foot, which was moulded in one piece instead of folded backwards. See Demetz 1999, 151-153, 196, pl. 28.1-2 for a description of the type *Armbrustspiralfibel*, which seems more applicable.

1822 Find no Ub4-5-121. The excavation at hand has not been published, and it should therefore be considered that the fibula could also be related to the post-Augustan (largely Flavian) occupation on the Hunerberg.

1823 Heeren & Van der Feijst 2017, 118-119.

1824 Heeren & Van der Feijst 2017, 119.

1825 Find no CA.1989.27.3162.m (context: a Flavian pit).

1826 Feugère 1985, 253-258 (type 12a); Demetz 1999, 99-105; Heeren & Van der Feijst 2017, 238.
The fibula in question may well have been lost by a member of the legionary forces stationed here at that time.\textsuperscript{1827}

**Maurik**

Only the fibulae found in 1972 and 1973 while extracting sand from a silted-up Rhine channel are considered here. Other finds collected at the same occasion, especially military equipment, coins and stamped brick fragments, evidence the presence of a Roman fort, which must have been washed away by the river. The fibulae, spread over various collections, have been published by Jan Kees Haalebos in 1986. His catalogue has 197 entries, including also La Tène and Early Medieval brooches.\textsuperscript{1828} Of the 196 fibulae listed in the *BLC* database 138 can roughly be dated to the 1st century AD. Similar to the fibulae spectrum of Nijmegen-Hunerberg, the dominant type is type 45, the common wire brooch. In Maurik its share is even larger, with 58%.\textsuperscript{1829} Apparently, the pre-Flavian component plays a minor role.

Two brooches indicate a link with the Norico-Pannonian territory. One can be classified as a type 14b, the other as a type 14d.\textsuperscript{1830} Their respective dates lie around AD 15-70 and AD 60-90. Especially 14d is associated with female dress. The overlap in their date ranges makes an arrival of people with a Norico-Pannonian background at Maurik around AD 70 plausible, perhaps just after the Batavian Revolt.

Fibulae with a Gaulish signature are less numerous in this assemblage than in the previously discussed ones. Only three fibulae of type 16 are counted, all variant 16a.\textsuperscript{1831} They roughly date to the pre-Flavian period. Other Gaulish types are lacking.

Possibly from the Iberian Peninsula are two fibulae of type 41. The type has a long period of circulation, but they seem to be most frequent in the Lower Rhine area in the Claudio-Neronian period.\textsuperscript{1832} It is tempting to associate these omega fibulae with the *cohors II Hispanorum equitata*. This unit might have been stationed at Maurik in the late Flavian period, but the evidence for its presence consists for now of only one brick stamp.\textsuperscript{1833}

**Bunnik-Vechten**

The *BLC* database lists 435 fibulae or fibula fragments from Vechten. Since parts of the earliest fortifications may have overlapped with the later military vicus, all fibulae from Vechten listed in the database have been included in this analysis, regardless of the precise findspot. Furthermore, the pieces found in recent excavations have been added. This has resulted in over 400 pieces, of which 358 may, with caution, be dated to the 1st century AD. Vechten has had a continuous military occupation throughout the Roman period, which explains the more even spread of fibulae across the various types, certainly on a chronological level. The largest group is constituted by the eye fibulae of type 20 (20%), closely followed by the wire fibulae of type 45 (18%) and type 30, the Aucissa/Alesia fibulae.

\begin{itemize}
\item \textsuperscript{1827} Jezerine fibulae were worn by men as well as women. Demetz 1999, 102.
\item \textsuperscript{1828} Haalebos 1986b, esp. 86-101, 106-107.
\item \textsuperscript{1829} The second largest group is type 33, with a share of only 8%.
\item \textsuperscript{1830} Haalebos 1986b, nos 19 (variant 14b) and 20 (variant 14d).
\item \textsuperscript{1831} Haalebos 1986b, nos 8 (variant 16a3), 9 (variant 16a2) and 10 (variant 16a2).
\item \textsuperscript{1832} Haalebos 1986b, nos 188 and 189.
\item \textsuperscript{1833} Cf. Haalebos 2000, 52.
\end{itemize}
(12%). Again, these are the common military (i.e. type 30) and regional (i.e. types 20 and 45) types, already well known from other military sites.

One of the brooches has been identified as a Norico-Pannonian, or more broadly, Danubian type 14. The variant in question, 14d, can roughly be dated to AD 25-90, but it was probably most current between 60 and 90.\(^{1834}\)

Five fibulae belonging to main type 24 are generally Gaulish in origin. They can be dated to the pre-Flavian period.\(^{1835}\) Of roughly the same age are twelve hook fibulae of main type 16. Nine are of variant 16a, one of variant 16c, and two could not be further specified. One of the 16a fibulae is classified as a 16a4 variant, which can be dated to AD 40-80.\(^{1836}\) These type 16 fibulae are also considered to signal a connection with Gaul. Gaulish influence is further embodied by a fibula of variant 26b, dated to AD 1-70 and predominantly associated with female dress.\(^{1837}\)

No less than five brooches can be classified as variant 52a, a variant of the Germanic trumpet head brooch.\(^{1838}\) They signal Germanic influence, and since their number constitutes a relatively high concentration of this type at one site, they might point at a presence or influx of a group of Germanic people to Vechten in the second half of the 1st or early 2nd century AD.\(^{1839}\) None of the five 52a fibulae from Vechten are made of silver or gold; the use of precious metal would have made it very likely that they had actually been produced in northern Germany. The discovery of two fibulae during the 1995-1996 excavations suggests a date between AD 50 and 100, because it has been observed that 75% of the terra sigillata stamps from the same excavations can be placed in that period. It is thus likely that these two fibulae have a similar age.\(^{1840}\) However, among the fibulae collected during these excavations are also clearly 2nd-century specimens, so a later date cannot be ruled out.

Production in Germania can be assumed for a silver fibula variant 40a, the West Germanic eye brooch. It originates in the Germanic territory north of the Rhine.\(^{1841}\) The type can be only roughly dated to the period AD 40-150; the silver brooch from Vechten is from a find context which cannot further refine this.\(^{1842}\) The same goes for two additional copper-alloy fibulae of variant 40a from Vechten.\(^{1843}\) Grouped under the same main type is variant 40b, a so-called \textit{Rollenkappenfibel}. Two copper-alloy fibulae of this variant have been found at Vechten.\(^{1844}\) They cannot be securely dated either, but the similarities that at least one of them bears to early specimens of the so-called \textit{östliche Hauptserie} suggest that it can be dated to the middle or second half of the 1st century AD.

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\(^{1834}\) No VF 864 (RMO).

\(^{1835}\) Four come from the excavations prior to the building of the new Waterliniemuseum.

\(^{1836}\) Hendriksen 2017b, find nos 49, 358 (24c1) and 814 (24a). The fifth fibula – registered under no VF 907 – is part of the RMO collection (variant 24c1).

\(^{1837}\) Hendriksen 2017b, find nos 49 and 939. Variant 16a1: Zandstra & Polak 2012, fig. 124a, find no 29. Variant 16a2: collection RMO, nos VF 867, VF 868 and VF 870; excavations 1995-1996, find nos 04-03-0097, 04-03-0001 and 05-00-0041; Zandstra & Polak 2012, fig. 124b, find no 413. Variant 16a4: collection RMO, no VF 871. Variant 16c: Hendriksen 2017b, find no 56.

\(^{1838}\) Hendriksen 2017b, find no 536.

\(^{1839}\) Haalebos 1986b, fig. 28-5-6; excavations 1995-1996, find nos 02-03-0141 and 04-03-0261; Hendriksen 2017b, find no 49.

\(^{1840}\) Cf. n. 1510.

\(^{1841}\) See above, n. 1648.

\(^{1842}\) Heeren & Van der Feijst 2017, 115-116.

\(^{1843}\) Hendriksen 2017b, find no 49.

\(^{1844}\) Haalebos 1986b, fig. 28, 2 and 28, 3.

the other is probably later in date. The origin of both pieces may be sought in the northern Germanic region east of the river Elbe. A further Germanic connection is found in the presence of four type 44 fibulae, which are Germanic wire or knee brooches. Three are of the 44a variant and one of the 44b variant. These brooches have their main distribution in the Lower Elbe region, and are most current between 70 and 180 AD. The co-presence of other northern Germanic fibula types at Vechten which can be dated to the second half of the 1st century or first half of the 2nd century AD, makes a similar date likely for these pieces.

Eye brooches of variant 20f also have a strong Germanic signature. They probably date to the Claudio-Neronian period. Three fibulae classified as such have been found at Vechten. They probably belong to a transitional form preceding the Preußische Nebenserie, which is generally dated to the Flavio-Trajanic period. One of these three fibulae is mentioned by Almgren, the other two have been discovered during recent excavations.

The high number of Germanic brooches is striking. Their dates could be similar, but the occurrence of a later type 40b suggests that the presence of people with a Germanic background or connection stretches over a longer period of time. This is underlined by the representation of both western and eastern Germanic types among the fibulae. According to literary sources, new Germanic units joined the Roman army from the second half of the 2nd century onwards. The Mattiaci and Usipii, who inhabited territories on the right bank of the river Rhine, had already provided men for service in the Roman army in the later 1st century AD. Although there is no convincing evidence – literary nor epigraphical nor archaeological – to support a large-scale, long-distance and long-term movement of North Germanic men serving in the Roman army, this does not rule out the possibility that the Germanic fibulae from Vechten belonged to Germanic men serving in the Roman army or to relatives who might have accompanied them. They might have reached Vechten individually or in small groups, not in large numbers. On the other hand, it must also be taken in consideration that people from outside the Roman Empire may have come to Vechten for other reasons, possibly as traders or craftsmen. Considering this scenario, it might be significant that six of the fifteen Germanic fibulae discussed here were collected in an area where predominantly features of the military vicus were unearthed. Contrastingly, none of the 119 fibulae from the RMO collection belongs to types 40, 44 or 52, although this seems to contain many finds from the vicus as well.

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1845 Find no 1996-05-03-0583 appears to be early, find no 1996-05-04-1050 is probably later in date considering its broadness and thin bow.
1846 See also below, n. 1864.
1847 See the general description of BLC type 44, p. 285.
1848 Almgren 1923, 29, no V 166. This inventory number could not be found in the collection of the PUG. The collection does, however, hold one fibula of type 20f from Vechten, but with inventory number V 169. Whether Almgren noted the wrong inventory number or the objects have been mixed up afterwards, there is still at least one variant 20f fibula known from Vechten.
1849 Hendriksen 2017a, find nos 279 or 356, and 636.
1850 M.A. Speidel 2009a, 242-244.
1851 James 2005.
It remains particularly remarkable that no other site in the research area displays such a concentration of 1st-century Germanic fibulae.\textsuperscript{1852}

Four fibulae of type 41 may indicate a connection with southern Europe.\textsuperscript{1853} It is suggested that this type originated on the Iberian Peninsula. Their main characteristic is their omega shape. Fibulae taking this form were used over a long period of time, but the pieces found in the Lower Rhine region are supposed to date mainly from the years between AD 40 and 70.\textsuperscript{1854} It is tempting to associate these fibulae, cautiously considered to be Spanish in origin, with the assumed arrival of the \textit{cohors I Flavia Hispanorum equitata} after AD 70. However, since an earlier date is also possible, the option must be kept open that soldiers with an Iberian connection garrisoned the fort at Vechten prior to the Batavian Revolt.\textsuperscript{1855}

Finally, a fibula with a British signature may be added.\textsuperscript{1856} It concerns a headstud brooch, variant 54a, which is broadly dated by Heeren and Van der Feijst to AD 60-180. Since it is known that the \textit{ala I Thracum} moved from Britain to Vechten in the early 2nd century, it is tempting to associate this explicit British fibula with the unit’s transfer between AD 124 and 127.\textsuperscript{1857} In view of the various other British fibulae with a similar chronological profile on the Lower Rhine it may be relevant to consider a broader displacement of troops from Britain to the Continent around AD 125. There are indications that a war took place in northern Britain in the period c. AD 123-125.\textsuperscript{1858} It is very well possible that in the aftermath of this war, units stationed in Britain were reorganised and some of them were transferred back to the Continent. Another candidate for bringing this British fibula to Vechten might be a member of the \textit{cohors II Brittonum milliaria equitata}, although the assumption that the unit was stationed at Vechten in the Flavio-Trajanic period is based on only one brick stamp. The presence of this nominally British unit at Vechten is therefore not certain. The unit appears to have been levied in Britannia shortly after the Batavian Revolt, and was probably sent immediately to Germania inferior.\textsuperscript{1859}

Eye fibulae in the tradition of the Rollenkappen fibula

Bunnik-Vechten is the only military site along the Lower Rhine where fibulae of type 40 have been found. The fibulae grouped together under this main type share a peculiar construction. Their broad spirals are placed behind the broad and

\textsuperscript{1852} Early Germanic fibula types 40, 44 and 52 are present with 34 specimens in the \textit{BLC} database (including Xanten-pre-colonia), 15 of which are from Vechten.

\textsuperscript{1853} One is part of the RMO collection: no VF 649. Two were collected during the 2012 excavations: Hendriksen 2017b, find nos 49 and 94. The fourth was found in the 1947-1948 excavations: Zandstra & Polak 2012, 220-222, fig. 124h, find no 413. None of these finds can contextually be dated securely.

\textsuperscript{1854} Heeren & Van der Feijst 2017, 117-118.

\textsuperscript{1855} Cf. p. 283-285.

\textsuperscript{1856} From the 1995-1996 excavations, find no 24-01-0003.

\textsuperscript{1857} The unit is mentioned in a diploma issued to a member of the army stationed in Britannia in 124 (\textit{CIL} XVI 70), and three years later in a diploma for the Lower German army (\textit{RMD} 4, 239 = \textit{AE} 1997, 1314).

\textsuperscript{1858} Graafstal 2012, 123-124; Graafstal 2018, 84. Graafstal (2012, 124) remarks that Britain is ‘the only theatre in the Roman orbit where rumours of war resound at that time’.

\textsuperscript{1859} Alföldy 1968, 49. Contra Ivleva (2012, 108), who suggests that the unit was created in AD 56-59 because it is mentioned in the diploma for the army of Germania inferior dated to AD 81-83/84. That the \textit{cohors II Brittonum milliaria equitata} is mentioned in a diploma issued to a soldier, of an unknown unit, after twenty-five years of service does not necessarily mean that the unit itself had been in existence for twenty-five years.
thin bow and attached through a drilled hole at the back of the bow.\textsuperscript{1860} Main type 40 is divided into two variants, 40a and 40b. Both variants occur at Vechten.

Three fibulae are of variant 40a (fig. 85). It is characterised by eyes which have protruding pendants on the outside. One of the fibulae from Vechten is made of silver, the other two of copper alloy. The distribution of the \textit{Extremform} of the eye brooch is largely limited to the Middle and Lower Rhine regions. A few specimens have been discovered in Germanic territory east of the river Rhine and north of the river Main, but not beyond the river Weser. It is assumed that brooches of this type were produced between Rhine and Weser. Hence, the type may be called West Germanic. They are relatively often made of silver. For the chronology of this variant, there are very few clues. For now a rather general date of AD 40-150 is maintained.\textsuperscript{1861}

Two fibulae belong to variant 40b, both made of copper alloy. They are marked by a spring cover and a broad upper body (fig. 86). Type 40b corresponds with fibulae in the range of Almgren’s \textit{Gruppe II, Fibeln mit zweilappiger Rollenkappe}.\textsuperscript{1862} These can be divided into a \textit{westliche Hauptsérie}, current between the rivers Weser and Parsëta, but especially between Elbe and Oder,\textsuperscript{1863} and an \textit{östliche Hauptsérie}, which concentrates east of the river Oder but is also found between the Elbe and the Oder. West of the river Elbe, however, the occurrence of this type of fibula diminishes strongly.\textsuperscript{1864} One of the two specimens from Vechten has much in common with fibulae of the early horizon of these spring cover fibulae dated to the middle of the 1st century AD. They remain current until about AD 150.\textsuperscript{1865} The other fibula of type 40b from Vechten is probably later in date, but it most likely also originates from the northern Germanic region east of the Elbe.

\textit{Utrecht-Domplein}

The number of fibulae recovered from the fort at Utrecht-Domplein and its immediate surroundings is small. Only 21 fibulae are known, of which 13 can be dated to the 1st century AD.\textsuperscript{1866} Statistically, no significant conclusions can be drawn, but the assemblage reflects the general picture in that at least nine brooches belong to the so-called regional types (i.e. type 17c and 45), which enjoyed a generally high popularity in the Lower Rhine region. One fibula is of the originally Gaulish type 16. A fibula which might be late 1st century or early 2nd century AD, is of the supra-regional type 55, and another piece can be classified as military (type 30d).

The one remaining fibula is, however, of an exotic type, the so-called dragonesque type (type 57j23; fig. 87).\textsuperscript{1867} Only a few specimens of this fibula type have been recorded from Germania inferior. In the database only one more piece is listed, from Nijmegen. Ivleva’s study yielded another dragonesque brooch from Germania inferior, reportedly discovered somewhere in the

\textsuperscript{1860} Heeren & Van der Feijst 2017, 115-116.  
\textsuperscript{1861} Kunow 1998b, 103-104, 110-111, fig. 9; Heeren & Van der Feijst 2017, 115-116.  
\textsuperscript{1862} Almgren 1923.  
\textsuperscript{1863} Leube 1998.  
\textsuperscript{1864} Olędzki 1998.  
\textsuperscript{1865} The fibulae have been dated to Eggers’ phase B2. Olędzki 1998, 76, with fig. 7.1-9.  
\textsuperscript{1867} Find no 75.1. Cf. \textit{Artefacts} entry FIB-41058.
Rotterdam region. The dragonesque brooch from Utrecht is the only one from a secure archaeological context. In the excavation report the brooch is dated to c. AD 50-150.

There is no doubt that the dragonesque brooch was brought from Britannia, either by someone of British descent or by someone who had visited Britannia. Given the military nature of the findspot, it is likely that the latter would have been a soldier stationed in Britannia. Brooches of the dragonesque type concentrate in the north and east of the main island, with a remarkable focus in Yorkshire.

The fibula from the Domplein belongs to type A1a of Fraser Hunter’s classification, an enamelled dragonesque brooch with circular device and with ring and dot decoration flanked by enamelled zones. Previously, this type was broadly dated to AD 50-175. Ivleva seems to adhere especially to the early start by assuming a mid-1st century date for the dragonesque brooches from Nijmegen and the Rotterdam region. Considering the use of enamel on these brooches, this seems too early. Martin Dearne proposed that the enamelling of these brooches might have started c. AD 70-90, but further finds could confirm nor deny this. Based on the information provided by Dearne and Hunter it seems highly likely that the Domplein brooch does not predate AD 70, that it is perhaps from the Flavian period, but more probably from the first half of the 2nd century AD. For now the fibula from the Domplein may be provisionally dated to c. AD 70/90-120/150.

It is unknown which unit garrisoned the fort at Utrecht-Domplein before AD 88/89. After that date, the cohors II Hispanorum peditata is assumed to have been stationed there. There are no clear indications about where that unit was before AD 88/89.

Woerden

Of the 55 fibulae listed in the BLC database for the fort at Woerden, can roughly be dated to the 1st century AD. About half of these belong to the regional type 45, the common wire brooch. One fibula can be classified as a variant 24a2, which indicates a general Gaulish connection in the pre-Flavian period. Another fibula with a Gaulish signature is a fibula of variant 16a2, the

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References:

1868 Ivleva 2012, 258, 601.
1869 Kerkhoven 2015, 53, table 4.9; 54, fig. 4.13; 207, find no 75.1.
1870 Hunter 2010, 95.
1871 Hunter 2010, 96-98, fig. 4, table 4. This classification was based on 270 identified pieces.
1872 Hunter 2010, 96.
1873 Ivleva 2012, 573 (T200), 601.
1875 All but three come from the site Woerden-Hoochwoert.
1876 Woerden-Hoochwoert, find no 845. Cf. Hoss (2008, 238) stating that in Woerden no Germanic or other types of fibulae have been found that can be connected with a specific ethnocultural group.
most common form of the hook fibula. It is generally dated to 20 BC-AD 80, but had its main circulation between AD 1 and 60.1877

Zwammerdam

Of the mere 23 brooches listed for Zwammerdam 17 can be dated to the 1st century AD. Most of these 1st-century fibulae belong to either regional (main types 45 and 20) or supra-regional types (main types 33, 38 and 57). Four brooches are basically military in character (three main type 30 and one variant 33b1). This leaves one fibula that may have come from a particular region outside of the Lower Rhine area, a brooch of the variant 16a2.1878 Main type 16 is considered to be an originally Gaulish product, encountered often in forts along the Rhine.1879 This fibula from Zwammerdam could indicate a link with Gaul, but the type may gradually have turned into a general military type, considering the high numbers present at military sites along the Lower Rhine. If the fibula in question dates from the end of the period when the subtype was in use, which lasted until about AD 80, then the Gaulish connection may have become diluted. According to Haalebos, the fibula can be connected to phase II or III of the fort.1880 Phase II is supposed to start c. AD 70.

Alphen aan den Rijn

Of the 239 fibulae and fibula fragments recorded for the fort at Alphen aan den Rijn, 209 have an approximately 1st-century date. The common types 20 (12%), 30 (14%) and 45 (28%) cover more than half of the assemblage, with 30 being a typically military type and 20 and 45 more regional.

For c. AD 60-90 a relatively high number of six fibulae type 14d indicates the presence of people with a Norico-Pannonian affiliation.1881 These ‘Danubian’ fibulae can be connected with the supposed arrival of the cohors VI Breucorum in the Flavian period at Alphen aan den Rijn. Since we know that the cohors VI Breucorum was stationed in Germania inferior in AD 981882 and 1271883 and the unit is not attested at any other fort along the Lower German limes for that period, it seems likely that it was garrisoned at Alphen aan den Rijn; this assumption is corroborated by the presence of various tile stamps of this unit. Furthermore, the assumption that these fibulae are typical for female attire from the Norico-Pannonian territory suggests that women followed the men serving on the frontier. Perhaps the men even sent for a wife from their homelands, which would mean that women could have joined the men later on and did not per se travel with them directly.1884 The latter scenario implies then a later arrival of the fibulae at Alphen aan den Rijn, after the arrival of the cohors VI Breucorum itself. This, in its turn, would allow the cohors VI Breucorum to have arrived at Alphen aan den Rijn already before AD 70. Although it would be a rare case of continued deployment in Germania inferior,1885 the possibility can be considered

1877 Woerden-Hoochwoert, find no 658a.
1878 Haalebos 1977, 228-229, no 103 (find no 18).
1879 Heeren & Van der Feijst 2017, 60-63.
1880 Haalebos 1977, 228, no 103, referring to the find circumstances of no 102.
1881 BLC nos Alphen-N11-54, 55, 56, 57, 72 and 73 in the BLC database. See also Zander [2013].
1882 Haalebos 2000, 58.
1883 RMD 4, 239 = AE 1997, 1314.
1884 Greene 2015, 139.
1885 See table 4.
that this unit was stationed in the Lower Rhine area before as well as after the Batavian Revolt.  

Seven fibulae of type 16 have a Gaulish signature. All but one are 16a variants. The remaining is a fibula of variant 16c. These hook fibulae had their main currency between AD 1 and 60, although their general date stretches from 20 BC until AD 80. This can be narrowed down for one of the 16a fibulae found here, for it can be classified as a 16a4 variant, which was in use from c. AD 40 until 80.

For the second half of the 1st century, a link with Britannia presents itself through four fibulae of the type 36. Under type 36 a range of fibulae are grouped that can be described as British hook fibulae. Not many of these British fibulae have been found in the Low Countries: only fourteen specimens have been recorded in the BLC database. Three are from Nijmegen-Hunerberg and four were found in soil removed from the river bed in front of the fort at Alphen. Because of their low number on the Continent, the division within the BLC typology is kept simple, but the fibulae can be further classified according to the names and typologies used in Britain. Thus, one can be labeled as a Colchester derivative (T92), one a Dolphin brooch (T94) and two as Polden Hill brooches (T98). The Colchester derivative still had part of a chain attached to it, indicating that it was part of a pair and had most likely been worn by a woman.

Type 36 in general has been dated by Heeren and Van der Feijst to c. AD 50-100, in view of its occurrence among the remains of the (Flavio-Trajanic) canabae in Nijmegen. This suggests that an influx of people from Britannia, not necessarily originating there, reached Alphen aan den Rijn in the second half of the 1st century AD. Ivleva pointed out that the occurrence of British brooches at Alphen aan den Rijn coincides with the withdrawal of Roman army units from Britannia under Domitian. However, those units are assumed to have been sent specifically to Dacia, to be deployed in the war against king Decebalus. There is no conclusive evidence that units withdrawn by Domitian from Britannia were directly thereafter stationed in the Lower Rhine area.

A fifth British fibula from Alphen aan den Rijn belongs to BLC type 53, variant 53a. Ivleva argues that this particular trumpet head brooch can be identified as a ‘Chester type’ (T154A). This provides a tentative connection with the legio II Adiutrix, for this legion was stationed in Chester, in the heart of the distribution area of this fibula variant, until AD 86. Ivleva further states that the British trumpet fibulae were taken into production only after AD 80, as did the Polden Hill fibulae. This nuances the earlier proposed date of AD 50-100 for

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1886 Alföldy postulated (1968, 48) that multiple cohortes Breucorum were stationed in the Rhineland before the Batavian Revolt. So far only the cohors VIII Breucorum is attested for the pre-Flavian period.


1888 BLC nos Alphen-N11-69, 70, 74 and 75. See also Zander [2013], nos 6.37, 6.43-45.

1889 Ivleva 2012, 266, 599.

1890 Ivleva 2012, 266-267.

1891 Cf. Southern 1997, 73.

1892 BLC no Alphen-N11-76. See also Zander [2013], esp. no 6.46.

1893 Ivleva 2012, 267, 593.

1894 Ivleva 2012, 266. Please note that Cool (2016, 412) writes that trumpet brooches were already developing in the 60s and 70s of the 1st century AD.
the general type 36, and poses questions for the reconstruction of the movements of *cohors VI Breucorum*.

Ivleva suggests that the British fibulae left at Alphen aan den Rijn were brought there by members of the *cohors VI Breucorum*, if the unit was stationed in Britannia prior to AD 80, or by members of the *legio II Adiutrix*, who might have stayed at Alphen aan den Rijn on their way from their former headquarters at Chester in Britannia to Pannonia in AD 86.\(^{1896}\) None of the two scenarios can satisfactorily account for the presence of the British fibulae at Alphen aan den Rijn. The former can be opposed by the lack of evidence for the presence of *cohors VI Breucorum* in Britannia before AD 80, apart from the assumption that two other cohortes Breucorum were part of the force that invaded Britannia.\(^{1896}\) Instead, as has already been discussed above, the Neronian or Flavian date of the fibulae type 14 found at Alphen aan den Rijn could indicate that the unit might have stayed or was in the Danubian territory at that time. The latter suggestion, involving *legio II Adiutrix*, does not take enough into consideration the small size of the fort: it would have barely offered enough room for a cohors quingenaria, let alone a legion. If only a part of the legion could have stayed there, while passing through on its way to Pannonia, where was the rest of the legion housed for the time being? Why would they not rather have built a large enough temporary legionary (marching) camp, as known from other sites? It seems more likely that the British fibulae were not brought here by soldiers of a legion or even an auxiliary unit in transit, but rather by members of a unit who had either been stationed in Britannia before coming to Alphen or who themselves originally came from overseas. A specific unit cannot be named for now, but the fibulae of *BLC* types 36 and 53a in any case signal that people with a British connection were in Alphen aan den Rijn in the 80s or later.

A more southern association is proposed for four fibulae of type 41.\(^{1897}\) Although its origin is disputed, this omega-shaped fibula may well have been brought from the Iberian Peninsula to the Rhine by members of the Roman army. A predominantly Claudio-Neronian date is assumed for type 41 fibulae found in the Lower Rhine region, although earlier pieces as well as (considerably) later pieces are known from securely dated contexts.\(^{1898}\) Given the general date of the fortifications at Alphen aan den Rijn, the four omega fibulae found here will in principle not predate the Claudian period. They suggest the presence of soldiers who were previously stationed on the Iberian Peninsula or who had their homelands there.

Strongly profiled fibulae with a double bow-knot

The Almgren 236 is the equivalent of variant 14c. This strongly profiled brooch is characterized by a double bow-knot (fig. 88). Its period of use lies between c. 30 BC and AD 20, according to Heeren and Van der Feijst.\(^{1899}\) Remarkably, the only two fibulae of this type attested in the research area come from Alphen aan den Rijn,\(^{1900}\) where the first timber fort is likely to have been built in AD

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1895 Ivleva 2012, 266-267.
1897 *BLC* no Alphen-N11-164 (see also Zander [2013], esp. nos 6.80-6.81 – please note that Zander depicts two omega fibulae from the N11-deposit; find nos 027/0480 (FIB 2), 000/3505 (FIB 30) and 028/1081 (FIB 48) (see also Polak, Kloosterman & Niermeijer 2004, 197 with table 29).
1898 Cf. Heeren & Van der Feijst, 117-118.
1900 *BLC* nos Alphen-N11-52 and 53. See also Zander [2013], esp. nos 6.33 (variant 14c) and 6.34 (variant 14d). The two types 14 (variant c and d) fibulae recorded for Alphen aan den Rijn are finds from the river bed without secure chronological context.
Perhaps the fibulae from Alphen aan den Rijn were treasured heirlooms, or the date of the fibulae should be extended. On closer consideration, the type might well be younger. There seems now to be enough reason to assume a date from about AD 20 until 100. This agrees well with the chronology of the fort at Alphen aan den Rijn. Fibulae of this type concentrate in the Danubian region, especially in southwest Pannonia and northeast Noricum. They are traditionally associated with the Norico-Pannonian female costume. As mentioned above, in connection with variant 14d which is also recorded for Alphen aan den Rijn, these fibulae with a Danubian signature can be brought in connection with the presence of the cohors VI Breucorum.

Bulky Aucissa derivatives

Two fibulae of variant 30g2 were formerly grouped under the Aucissa fibulae (fig. 89). However, the heavy footknob and the massive broad bow are features reminiscent of the Iturissa type, named after the city in northern Spain in what was once the homeland of the Vascones. It is dated, based on the characteristics of the general Aucissa type, to the period AD 1-80. Fibulae of the Iturissa variant, characterized by several decorative knobs on either side of head and foot, date from the middle of the 1st century into the first half of the 2nd century AD.

The Iturissa type itself is not recorded in the Low Countries, and apart from the two pieces from Alphen only one further 30g2 fibula is listed in the BLC database, from Haltern. The features shared with the Iturissa type may signal a similar origin. Perhaps this Aucissa variant was made somewhere in the northern part of the Iberian Peninsula or by someone who had a background in this region. However, without further parallels this hypothesis is difficult to substantiate.

Variant 30g2 bears also similarities to some Spanish fibulae grouped under the Alesia category, especially the flat broad brow and the large upturned footnob. These Spanish pieces described by María Mariné Isidro seem to date mainly from the middle of the 1st century AD, with a possible extension into the early 2nd century. They corroborate a connection with the Iberian Peninsula for the two fibulae from Alphen aan den Rijn.

A ring fibula with bent back and clenched terminals

The final fibula from Alphen aan den Rijn discussed here has been published as a Late Roman ring fibula. Its terminals are not bent to the shape of an omega, but bent back and also clenched in the centre (fig. 90). This results in a sort of figure of eight shape, when viewed from the side. The piece does meet the requirements of variant 70a in the BLC typology (generally dated to AD 250-}

1901 Polak, Kloosterman & Niemeijer 2004, 123, 249, 255.
1902 Genčeva 2004, 97, type 8c.
1903 Garbsch 1965, esp. 26-36 (type A235a-f); Rothe 2013, 34.
1904 BLC no Alphen-N11-29 (see also Zander [2013], esp. no 6.17); find no 033/0010 (FIB 5; see also Polak, Kloosterman & Niemeijer 2004, 197 with table 29).
1905 Cf. Heeren & Van der Feijst 2017, They also share some features with arched bow fibulae of variant 18d, which has a broad bow and substantial footknob as well.
1906 Heeren & Van der Feijst 2017, 94-99.
1908 Mariné Isidro 2001, 200-207, type 8.5.b (esp. no 177, pl. 28).
but as has already been pointed out with regard to a ring fibula from Cologne-Alteburg,\textsuperscript{1910} such ring fibulae are known from earlier periods as well. The particular shape of this fibula bears strong similarities to fibulae of type D, in particular D4, as identified and described by Booth.\textsuperscript{1912} This includes the striking humped pin.

The similarities between the ring fibula from Alphen aan den Rijn and the material presented by Booth puts the fibula from Alphen in a different perspective. Booth’s thesis covers penannular brooches from Britain, and it thus seems very likely that the ring fibula from Alphen aan den Rijn originates from this region. Furthermore, Booth’s type D peaked in the mid-1st century AD, although fibulae of this type remained in use for the next three centuries. So instead of Late Roman, the piece could well be 1st century. Considering the five other British brooches recorded for Alphen aan den Rijn, a Flavian date for this ring fibula would fit the other pieces. In conclusion, the ring fibula formerly presented as Late Roman might well be a late 1st-century piece indicating a connection with Britannia.

\textit{Leiden-Roomburg}

Only fourteen fibulae listed as finds from Leiden-Roomburg can, cautiously, be dated to the 1st century AD. More than half of this small number is identified as type 45, common wire brooches. Two hook fibulae indicate a Gaulish connection. One is of the common variant 16a2, the other of variant 16b, which is associated in particular with southern Gaul. Both fibulae are roughly dated to 20 BC-AD 80, with a main circulation between AD 1 and 60.\textsuperscript{1913}

\textit{Valkenburg-fort}

In order to keep the focus as much as possible on the fort and its population, only the fibulae recovered from the fort area will be discussed here. The assemblage comprises only 29 fibulae, a number too small to evaluate the percentages meaningfully in comparison with the material from the other sites.

Apart from the common types such as the eye fibulae and the Alesia/Aucissa group, a few more exotic types have been recognized at Valkenburg. A particularly eye-catching piece is a fibula of the variant 14d.\textsuperscript{1914} This type conforms to the type Almgren 69 or Genčeva 9c. It is predominantly attested in Noricum and Pannonia.\textsuperscript{1915} Its period of use there is mainly Claudian until the middle of the 2nd century AD, although Heeren and Van der Feijst assume a main date of AD 60-90 for the Lower Rhine region.\textsuperscript{1916} This fibula, deemed typical for female attire from the Norico-Pannonian region, may be related to the

\textsuperscript{1910} Heeren & Van der Feijst 2017, 185-186.
\textsuperscript{1911} See above, p. 289-290.
\textsuperscript{1912} Booth 2014, 148-149, 159.
\textsuperscript{1913} Variant 16a2: find no 2-6-137 (De Bruin 2000, cat.no F1). Variant 16b: find no 1-5-314.5 (De Bruin 2000, cat.no F2).
\textsuperscript{1914} No find number.
\textsuperscript{1915} Genčeva 2004, 99-100.
\textsuperscript{1916} See the general description of BLC type 14d, p. 275. Details of the find circumstances of this brooch have been lost.
presence of people from the Danubian region at Valkenburg, most likely in the Neronian or Flavian period.

A fibula of type 16a1 points to Gaul and can be dated to roughly 20 BC-AD 80, with a main currency between AD 1 and 60. A Germanic association is embodied by a fibula of variant 20f, an eye brooch related to the Preußische Nebenserie. The find context of this fibula is not known, but the variant can be dated, with some caution, to the Claudio-Neronian period.

Velsen 1

The BLC database comprises 175 entries for Velsen 1, of which 165 pieces are complete enough to date them to the 1st century AD. A quarter of this group consists of type 30 fibulae (25%), followed at some distance by fibulae of types 20 (18%), 22 (13%) and 17 (11%). On none of the other military sites does type 22 have such a large contribution, which is explained by the early end date of Velsen 1. These early Roman wire brooches are considered to be a typically regional type with its main period of circulation in the first half of the 1st century AD.

Three fibulae of main type 26 have been listed. These are pre-Flavian in date and have a Gaulish association. However, variant 26c may have been produced in the Nijmegen region as an imitation of variant 26b. At least one of the type 26 fibulae from Velsen is a 26c; the others could not be further specified. Strikingly, it is assumed that variant 26c does not predate the Claudian period when found in the Lower Rhine region. If this date is conferred to the piece from Velsen, the fibula can be linked with the latest phase of Velsen 1 or with occupation at Velsen 2.

Four fibulae of main type 16 listed for Velsen are all of variant 16a2. This is the most common form of this Gaulish fibula type. They can be dated to 20 BC-AD 80, with a main circulation between AD 1 and 60.

One fibula may have been brought to Velsen from the Iberian Peninsula. Although the origin of type 41 is not completely clear, it is here suggested that especially the early fibulae in the typical shape of an omega travelled to the Lower Rhine region with the military. At Velsen one fibula of type 41 has been found. By the type itself, this piece could not be further dated; type 41 had a long period of circulation. Still, Heeren and Van der Feijst assume a mainly Claudio-Neronian date for the type 41 fibulae found in the Lower Rhine region. This would imply that the fibulae from Velsen belonged to the latest phase of Velsen 1 or to Velsen 2, but as this fibula type is also known from Haltern, an earlier date must certainly not be ruled out.

A spring cover fibula with a double bow-knot

One particular fibula from Velsen 1 has a Norico-Pannonian connection. As an imitation of an early Norico-Pannonian double knot fibula it is an exceptional

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1917  No 9671b.
1918  The BLC database lists one fibula of variant 20f found at Valkenburg-fort, as part of the collection of the RMO but without a find or inventory number. This is most likely the specimen depicted by Haalebos (1986b, fig. 14,2).
1920  Only for one piece a find number is listed, namely 90-21-17-337.
1921  The BLC database lists only for one piece its find number, being 90-11-15-171. For the other three, details of find location and context are lacking.
1922  Find no 86-1-5-7 (sic).
1923  Zandstra 2015, 233, fig. 5, with further references.
piece (fig. 91). In the typology of Heeren and Van der Feijst it is classified as type 27.\textsuperscript{1924} It bears a strong resemblance to fibulae of Almgren type 236/237. The fibula from Velsen 1 has a remarkable combination of a covered spring with an internal chord, and a bow with the already mentioned double knot. The spring of the type Almgren 236 has, contrastingly, no casing and the chord crosses not underneath the bow but above the bow. It is the double knot that points to the wider region of Noricum and Pannonia, because this feature is considered to be typical for a group of fibulae that have been associated with the attire traditionally worn by women in the Norico-Pannonian region.\textsuperscript{1925} The general context for the fortifications at Velsen places this fibula in the period from about AD 15 until shortly after 43.\textsuperscript{1926}

Heeren and Van der Feijst propose a different association for this fibula.\textsuperscript{1927} Since fibulae of type 27 have only been found in the Low Countries, it might be that they are typical for the region they were found in, and perhaps regional copies of the Almgren 236/237. Even then, the fibula from Velsen 1 is indicative of an association with the Norico-Pannonian region.

**Velsen 2**

The BLC database does not list any fibulae for Velsen 2, but eight fibulae are known from an online resource.\textsuperscript{1928} Four can be classified as eye fibulae (type 20, none of them variant 20f or predecessor) and two as Aucissa fibulae (variant 30d). These are all common types on the military sites along the Lower Rhine; they also constitute the two largest groups at Velsen 1. One fibula of variant 17c2 belongs to a regional type, so-called *Knickfibeln*. The last fibula is one of the originally Gaulish hook fibulae, variant 16a2. This type is also present at Velsen 1, with four pieces. Given the general chronology of Velsen, the eight fibulae can all be dated to c. AD 15-43.\textsuperscript{1929}

**VII.3 Outliers among other dress accessories**

While collecting data for the analysis of the fibulae from the Lower Rhine area, a small number of exotic dress accessories drew the attention. These will be discussed in the following section.

**Remagen**

In her 2010 dissertation, Sibylle Friedrich lists three pieces of belt fittings found at Remagen under the heading militaria and horse gear.\textsuperscript{1930} All three finds are without known context. One

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1924 Heeren & Van der Feijst 2017, 90-91. The accompanying database comprises four fibulae type 27, but only this one, with find no wp-16-R-63, comes certainly from a military site.
1925 Garbsch 1965, 26-29.
1927 Heeren & Van der Feijst 2017, 90-91. Please note that in the publication five fibulae are mentioned, but the database only contains four specimens. It appears that Velsen 1 is erroneously listed as having yielded two fibulae of this type.
1930 Friedrich 2010, 114, with pl. 17,1.
can be identified as a belt fitting, therefore better classified as a dress accessory, and belongs to a type that concentrates in the Pannonian Plain during the La Tène period (fig. 92). A typical feature is the red enamel decorating the fitting. On closer inspection, it appears that the belts in question were part of female dress. The dating is more problematic. According to Challet, this type of belt built-up from metal rings generally dates to the second half of the 3rd century and especially the 2nd century BC. The fort at Remagen was founded in the Augustan period, but its first garrison is not known. It seems pushing it too far to associate this belt fitting with the originally Pannonian cohors VIII Breucorum, which is assumed to have been stationed at Remagen in the Claudio-Neronian period, and its successor cohors II Varcianorum equitata civium Romanorum pia fidelis, which also had originally been levied in the Pannonian region. Hypothetically, it is not impossible that it was a centuries old heirloom, carried by a Pannonian female non-combatant from her homeland to the Lower Rhine, in the wake of a relative serving in the cohors VIII Breucorum or the cohors II Varcianorum. It has been argued that especially metal artefacts were handed down as heirlooms. They could continue to be used for their original purpose, but they could also have been kept as financial assets. The large difference in time makes the latter scenario perhaps more likely.

**Neuss**

A copper-alloy belt hook dated to the late Augustan-Tiberian period has been found on the site of the legionary bases at Neuss, probably west of the Koenenlager where earlier fortifications have been excavated. The hook is now missing, as is one of the two fittings (fig. 93). The object was identified as an Elbgermanic belt hook. Similar items found in Germanic female graves indicate that it was part of female attire. Hooks of this type were in use during the first decades of the 1st century AD. Parallels have been found in Schleswig-Holstein, western Mecklenburg, Niedersachsen and northern Westfalen. This dress accessory may therefore have been worn by a female relative of a Germanic auxiliary soldier stationed at Neuss in the early 1st century AD.

Since this piece from Neuss was published, new finds of such Lochgürtelhaken have been published. An investigation of the varied design and distribution of these belt hooks shows that an association with Elbgermanic people is not so obvious. According to Thomas Völling, these belt hooks must not per se be attributed to Elbgermanic women, for the belt hooks were not produced in series at one site, but rather dispersed as individual pieces. Some belt hooks lack the typical soft curvature most hooks have. This makes the flat hooks likely to be imitations. Since the Neuss piece is also flat rather than curved, it is not so certain that the belt hook was once worn by an Elbgermanic woman, but a certain connection or affinity with the Elbgermanic cultural repertoire is likely.

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1934 Allason-Jones 2013, 29.
1935 Item 9732. Simpson 1977, 563, fig. 1,8; Simpson 2000, 79-80, pl. 26,19.
1937 Compare the Elbgermanic finds discovered at the Kops Plateau and their suggested background, as discussed in the chapter on militaria (chapter VI), p. 251-254 and 262-264.
The general distribution map of Lochgürtelhaken made by Völling shows that Neuss is on the western edge of the distribution, but not in isolation.

Velsen

At Velsen, various belt fittings have been found that can be attributed to the so-called norisch-pannonische Frauentracht as described by Jochen Garbsch (fig. 94).\textsuperscript{1941} He based his classification on funerary monuments and finds from settlements and graves in Noricum and Pannonia.

Two copper-alloy boat-shaped fittings have been identified as adornment of belts typically worn by women from these regions.\textsuperscript{1942} These belt fittings have been unearthed at Velsen 1. From Velsen 2 comes a copper-alloy strap terminal that looks very similar to the so-called Riemenzungen described by Garbsch.\textsuperscript{1943} It has a similar construction to fasten the terminal to the belt strap as well as the same, long thin shape. Based on their typology both the boat-shaped fittings and the strap terminal can be dated to the 1st century AD.

Together with the double knot fibula from Velsen 1, described above, these belt fittings indicate that at least one woman who appears to have a Norico-Pannonian background was present at Velsen in the early Roman period. It has been suggested that the fittings ended up in Velsen because of the presence of Dalmatian units, or part of them, which had been levied by Caligula.\textsuperscript{1944}

\textbf{VII.4 Summary}

In the preceding sections fibulae and other dress accessories pointing at specific geographical regions have been presented. In contrast with the categories analysed in the previous two chapters, the fibulae do not inform us about whether the people who used them were members of legionary or auxiliary units, or

\textsuperscript{1940} Zandstra 2015, 233 and fig. 4, with further references.
\textsuperscript{1941} Garbsch 1965.
\textsuperscript{1942} Bosman 1997, 55, fig. 6.21, 14. Please note that Rothe (2013, 38) warns for overrating the Pannonian share in this phenomenon.
\textsuperscript{1943} Garbsch 1965, 104-106, fig. 56, type R2; Bosman & De Weerd 2004, 40-43, fig. 9.11. Here the strap terminal is identified as a cavalry fitting.
\textsuperscript{1944} Polak 2017, 638.
whether they served as infantry, cavalry or fleet soldiers, let alone what the names of their respective units were. But they do shed light on geographical regions where people might have originated, stayed for some time or had another type of connection with. More than the other two categories, they also signal the presence of women in or near the military forts, although it must be noted that ‘female’ fibula types were not per se worn exclusively by women.1945 As hopefully has become clear, the data provided by the fibulae highlights certain parts of the Empire more prominently than the data gathered from the graffiti and the militaria. At the same time, some regions remain invisible or unnoticed. In the following section the overall yield of the fibula analysis will be evaluated.

VII.4.a Geographical indications

The indications gathered from the fibulae and dress accessories are summarised in a table (table 20). The recognized geographical foci will successively be discussed in brief.

Italy

The only military site along the Lower Rhine that yielded Mediterranean types of fibulae is Nijmegen-Hunerberg. For a site which housed consecutive legionary fortresses this is not remarkable, but the other well-known legionary sites – Bonn, Neuss, Vetera I – are lacking indications pointing to the Mediterranean heartland among the investigated fibulae. One of the Nijmegen fibulae seems to be Augusto-Tiberian in date, the other can contextually be dated to the early Augustan phase. There is no compelling reason not to associate these two fibulae with people stationed in the early Augustan camp. They signal a connection with Italy in the earliest phase of Roman occupation on the Hunerberg.

Iberian Peninsula

Less well-defined are the fibulae associated with the Iberian Peninsula. Within this research framework the omega fibulae (type 41) and Iturissa fibulae are the explicit candidates, but with both categories there are issues. To start with the latter, no proper Iturissa fibulae have been recorded so far for the Lower Rhine area. There are however two pieces, both from Alphen aan den Rijn, that have the same bulky appearance, pronounced footknob and high arch as the Iturissa type. For these a tentative connection with the area around ancient Iturissa, in northern Spain, can be proposed. The two pieces from Alphen aan den Rijn have cautiously been dated to the pre-Flavian period.

The background of the omega fibulae is more complicated. As has been discussed, omega and other penannular fibulae have been found across Europe. It seems that the popularity of penannular fibulae in Britannia was triggered by pieces which arrived from the Iberian Peninsula. Following this line of thought, the omega fibulae found frequently on military sites along the Rhine may also have been brought here by people who originally came from the Peninsula or who had been staying there for some time. This reconstruction is corroborated by the difference in shape of the terminals perceived between the British pieces and the Iberian pieces. The typical omega shape seems to be less popular among the early British pieces. Instead, the latter are mostly characterized by terminals which are folded upwards, perpendicular to the fibula body. Hence, it is here assumed that omega fibulae may have been brought to the Lower Rhine area by

1945 See for instance n. 1619.
people with an Iberian connection. The pieces from the Lower Rhine area have a general date range between AD 30 and 70, but an earlier as well as a later date are certainly possible.

Considerable numbers have been found at Moers-Asberg, Nijmegen-Kops Plateau, Nijmegen-Hunerberg, Bunnik-Vechten and Alphen aan den Rijn. At Moers-Asberg, the omega fibulae might have been brought by members of legion II Augusta, which previously operated in Hispania Tarraconensis. There is epigraphical evidence for the presence of a detachment of this legion in the Augustan period.\footnote{1946 Bechert 1989, 111.}

### Table 20 Geographical indications in the fibulae and dress accessories
The final column lists the total number of analysed objects, with the dress accessories preceded by +. Red = pre-Flavian, blue = Flavio-Trajanic, black = generally 1st-century AD. ■ = certain attestation; □ = possible attestation. ● and ○ are used for dress accessories.

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<th>Eastern Gaul</th>
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on the Iberian Peninsula, but it is equally possible that the objects accompanied people who themselves originated from this region. These people may have been members of a legionary detachment or of an auxiliary unit, possibly levied on the Peninsula. Unfortunately, the omega fibulae from the Kops Plateau could not be as securely dated as some of the graffiti or militaria. The Flavio-Trajanic garrison of the nearby Hunerberg legionary fortress consisted of legio X Gemina, which had been stationed on the Iberian Peninsula for decades, save for a brief stay in Carnuntum c. 63-68 AD. This would tie in with the omega fibulae found there, of which at least one seems to have been deposited in the Flavian period. Their number is relatively small, compared to for instance the Kops Plateau and compared to other ‘exotic’ fibula categories recorded for the Hunerberg. An equal amount of four omega fibulae is listed for Bunnik-Vechten. These may be related to the cohors I Flavia Hispanorum equitata, which presumably garrisoned the fort at Vechten for some time during the Flavio-Trajanic period, although the graffiti suggest that there were already connections with the Iberian Peninsula in the pre-Flavian period. To the two possibly Iberian Aucissa/Iturissa variants from Alphen aan den Rijn four omega fibulae can be added. Apart from the cohors VI Breucorum no other unit is known by name as the garrison of the fort in the 1st century AD. Given the six fibulae with an Iberian signature, a unit originally composed of men from the Iberian Peninsula may be considered. This will probably have been an infantry unit, considering the dearth of horse gear at Alphen aan den Rijn.

Only two omega fibulae are recorded for Maurik, although cohors II Hispanorum equitata might have been stationed here for some time in the Flavio-Trajanic period. It could not be ascertained whether these pieces are Flavio-Trajanic rather than pre-Flavian in date, taking into account that the preferred date range for omega fibulae in the Low Countries is AD 40-70. For Cologne-Alteburg, Krefeld-Gellep, Xanten-Vetera I and Velsen 1 single omega fibulae are listed. These might rather signal individual connections with the Iberian Peninsula, but scenarios as described for the fibulae from Nijmegen or Vechten are not excluded. Remarkably, fibulae which are supposed to have their origin on the Iberian Peninsula are lacking in Neuss, although a cohors Lusitanorum levied in this region, presumably the cohors III Lusitanorum equitata, is epigraphically attested there. The same goes for Utrecht-Domplein, which is likely to have been garrisoned by cohors II Hispanorum peditata. It must, however, be noted that the overall number of recovered fibulae from this site is much smaller than that from Neuss.

Southern Gaul

Fibulae with a Gaulish signature are particularly well represented among the fibulae from the Lower Rhine area. Although the large majority has received the general label ‘Gaulish’, a smaller number could be specified as South Gaulish or East Gaulish. In this section the southern connections will be discussed.

Practically the connection with southern Gaul is embodied only by fibulae of variant 16b, as far as could be ascertained in this study. In total ten fibulae of this variant are listed, divided among Krefeld-Gellep, Moers-Asberg, Nijmegen-

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1947 Some of the graffiti indicate that people with an Iberian connection were present on the Kops Plateau in the pre-Claudian period.
1948 Zandstra & Polak 2012, 21 and see the section on Bunnik-Vechten on p. 148-152.
1949 Cf. p. 234.
1951 See n. 1523.
1952 For Utrecht-Domplein 21 fibulae are listed, against 443 from Neuss.
Kops Plateau, Nijmegen-Hunerberg and Leiden-Roomburg. In this group Moers-Asberg and Nijmegen-Hunerberg stand out, because at these sites not one but respectively four and three pieces have been found. For both sites an association with legionary personnel originating from the south of Gaul, especially Narbonensis, seems very likely. That would, however, imply an early date for these fibulae, right at the beginning of their date range. This interpretation may be extended to the other pieces found in the Lower Rhine area, but for these pieces only a wider, pre-Flavian date can be maintained.

Central-East Gaul

Twelve pieces of type 25 represent a connection with Central-East Gaul. Eight of these have been found at Nijmegen-Kops Plateau, the others at Neuss, Moers-Asberg and Nijmegen-Hunerberg. Central-East Gaul seems to be the area where many of the Gaulish alae were levied in the Augustan period, going by the attested homelands of soldiers serving in these units. One of them, *ala Gallorum Picentiana*, was stationed at Neuss in the Claudio-Neronian period. Considering the high number of type 25 fibulae at Nijmegen-Kops Plateau, it may be considered that another Gaulish ala garrisoned this fort temporarily. As candidates have been suggested the *ala Gallorum et Thracum Classiana* and *ala Gallorum Proculeiana*. For Neuss as well as Nijmegen-Kops Plateau a connection with Central-East Gaul is strengthened by the presence of fibulae related to the Aucissa and Iturissa types (variant 99j). These three fibulae – two at Neuss, and one on the Kops Plateau – seem to point to this region as well. For the other sites the evidence for the stationing of one of the Gaulish cavalry units is less strong. Perhaps a member of the *ala I Tungrorum Frontoniana* is responsible for the fibula recorded at Moers-Asberg; this unit was stationed there at the same time as the *ala Gallorum Picentiana* was stationed at Neuss. For the piece from Nijmegen-Hunerberg it is more difficult to find a suitable explanation, as there is no secure evidence for a sizeable military garrison on the Hunerberg between the early Augustan period and the Batavian Revolt. Maybe the connection with other pre-Flavian fibulae found on the Hunerberg offers a clearer picture.

Gaul in general

Even the shortest glance at the table with geographical indications as signalled by fibulae makes clear that the broader region of Gaul is extremely well presented. This is mainly due to the popular type 16 fibulae. The other types included in this category are types 15, 24, 26, 28 and 29. Practically all investigated military sites have yielded fibulae with an origin in Gaul. The large groups, in absolute numbers, at Neuss and Nijmegen-Kops Plateau may be related to the presence of the already mentioned Gaulish cavalry unit in Neuss, for which there is epigraphical evidence, and the suggested Gaulish cavalry unit on the Kops Plateau. The relatively large group at Moers-Asberg is most likely connected with the stationing of the *ala I Tungrorum Frontoniana*, considering the general date of the fibulae and the known occupation sequence of this fort which leaves little room for another Gaulish unit. Particularly worth highlighting is that the site of Altkalkar came to the fore in the correspondence analysis.

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1953 Heeren & Van der Feijst 2017, 63: c. AD 1-70.
1954 Alföldy 1968, 99-100. See also Holder 1980, 111, who states that all units carrying the title ‘Gallorum’ were raised in Galia Lugdunensis.
because of the strong presence of fibulae of variant 26b. Perhaps a nominally Gaulish unit was stationed here as well, in the pre-Flavian period.

So far only alae have been mentioned by name, but cavalry was not the only force supplied by men from the Gaulish interior. Several cohortes Gallorum are assumed to have been stationed in Germania inferior in the pre-Flavian period, although epigraphical evidence has so far been found for just one.\textsuperscript{1955} Valkenburg, where this \textit{cohors III Gallorum equitata} was stationed, yielded only one fibula with a Gaulish signature (a variant 16a1). It can be questioned whether the preferred pre-Flavian date for this piece is correct. Contextual analysis for the fibulae from Cologne-Alteburg argues rather for a Flavian date for the six fibulae variant 16a from this site. It must be considered that many of the pieces marked here as pre-Flavian could well be (somewhat) later in date.

This does not annul the dominance of the Gaulish fibulae. The most obvious explanation would be that people with a Gaulish background brought these pieces to the Lower Rhine area, but other explanations should be considered as well. Perhaps the fibulae, especially the popular type 16, have been wrongfully labelled as Gaulish, at least within the framework of this analysis. Indications for a centralized production of certain 1st-century fibula types in (Gaulish?) urban centres,\textsuperscript{1956} connected to a wider trade network, and the apparent local imitation of originally Gaulish fibula types\textsuperscript{1957} hint at the possibility that more or other mechanisms than the mobility of men may have been at work here. These later developments, taking shape in the Claudio-Neronian period, may influence the overpowering image of the pre-Flavian Gaulish indications in the table. Since these later Gaulish-inspired types are not considered, the Gaulish precursory fibulae types stand out extra strong.

\textit{Northern Gaul and nearby Germania}

To separate indications for the northeastern region of Gaul from the mass, fibulae that have been associated with the Rhine-Moselle region have been classified under the heading northern Gaul and the nearby Germanic territories. The dress and dress accessories of this region have been the subject of several studies, which allows for an isolation of markers pointing to this region.

This territory was above all Treveran territory. Men of Treveran origin are especially known as members of cavalry units, including their own \textit{ala Treverorum}. This unit was disbanded after the Batavian Revolt but was stationed in the Lower Rhine area in the Claudio-Neronian period.\textsuperscript{1958} Where it was stationed in Germania inferior, is not known.

Géza Alföldy supposes that the \textit{ala Indiana Gallorum} originally also existed of only Treveran men, but that the unit moved to Germania superior shortly after the Treveran Revolt of AD 21, where it received new, local recruits. Probably under Nero it went to Britannia, from where it got transferred to Germania inferior in the 80s AD. The unit stayed here until the early 2nd century. Its station

\begin{itemize}
\item \textsuperscript{1955} Alföldy 1968, 140; Holder 1980, 221; \textit{cohors III Gallorum equitata}.
\item \textsuperscript{1956} Cf. Heeren & Van der Feijst 2017, 279, 354, supra-regional types 31-34 and 37-39. For the later supra-regional type 57 it has been noted (Heeren & Van der Feijst 2017, 153) that most of these enamelled plate brooches must have been produced in urban or military centres and distributed either through sale in the centres themselves or by travelling merchants. Perhaps this type of production and distribution was already in development with the types 31-34 and 37-39.
\item \textsuperscript{1957} For instance type 34 as the later development of type 13, and related to type 23, and variant 26c as a possible local, Nijmegen version of variant 26b.
\item \textsuperscript{1958} Alföldy 1968, 37-38; Krier 1981, 181-184.
\end{itemize}
is assumed to have been Worringen, although no traces of an auxiliary fort have
come to light here.\textsuperscript{1959}

Perhaps the fibulae with a Treveran signature provide clues as to where these
cavalry units with a strong Treveran component can be sought, although it must
be kept in mind that Treveran men also served in other units, already in the pre-
Flavian period. Alternatively, the fibulae could have been brought to the Lower
Rhine area by people who had previously been stationed in the Treveran territory.
This may have been, for instance, at Wederath-Belginum. The occupation of
the Roman fort at Belginum has been dated to the Augustan, possibly Tiberian
period,\textsuperscript{1960} which concurs roughly with the occurrence of type 13 fibulae between
20 BC and AD 20. The other fibulae with a supposed Moselle-Rhine connection,
type 23, appear later, in the Claudian period. To this must be added that the
origin of the type 23 fibulae is disputed. Opinions differ as to where the main
distribution of these collar fibulae is located: some suggest the Moselle-Rhine
region, covering parts of northern Gaul and Germany, others prefer to see this
type as North Gaulish. Type 23 is only present at Xanten-Vetara I and Nijmegen-
Hunerberg. At the latter site it is accompanied by a fibula of the earlier and more
outspoken Treveran type 13. Fibulae of type 13 are further present at Neuss and
Moers-Asberg. As a hypothesis it might be considered that the \textit{ala Treverorum}
was stationed temporarily at Neuss, Nijmegen-Hunerberg or Moers-Asberg
during the Claudio-Neronian period.

Finally it is worth mentioning that no fibulae with a Treveran association have
been found at Nijmegen-Kops Plateau, in spite of the overall large share of other
Gaulish fibulae that have been recovered from this site which was undoubtedly
garrisoned by cavalry at some point.

\textit{Britannia}

Of the 23 fibulae with a British signature, the one from Cologne-Alteburg stands
out, because it can contextually be dated to the pre-Flavian period. Several
British fibulae have been found at Cologne, but these are all Flavian or, more
likely, later in date, at least their deposition. The best candidates to have brought
the 1st-century British fibulae to Cologne-Alteburg are British-born members
of the fleet which had its headquarters at Alteburg from the Claudian period
onwards.

The other fibulae with a British signature listed in the table are most likely
Flavian or somewhat later in date. It is tempting to link the six pieces from
Nijmegen-Hunerberg with the \textit{vexillatio Britannica}, a detachment raised from
legions and auxiliary units stationed in Britannia. These troops are supposed
to have replaced \textit{legio X Gemina} c. AD 104. However, the find contexts may
rather plead for an association with inhabitants of the canabae. At Alphen
aan den Rijn a relatively large group of six British fibulae has been found. It
has been proposed that they were lost or left there by members of the \textit{cohors
VI Breucorum}, if the unit indeed operated in Britannia before AD 80. Until
there is firm evidence for a previous deployment of the \textit{cohors VI Breucorum}
in Britannia, the option must be kept open that members of another unit are
responsible for the British fibulae recorded for this site. One of the candidates is
the \textit{cohors VI Brittonum}.

At Bunnik-Vechten two units with a British connection appear to have been
present. However, the evidence for the \textit{cohors II Brittonum milliaria equitata}
consists of only one brick stamp. If the unit was stationed at Vechten, it probably

\textsuperscript{1959} Alföldy 1968, 19-21.
\textsuperscript{1960} Haupt 2010. See also n. 1410.
arrived here in the Flavian period. More secure evidence is available for the *ala I Thracum*. It is known that this unit was transferred from Britannia to Germania inferior between AD 124 and 127. This later date falls within the broad range appointed to the British fibula found at Vechten (AD 60-180). A similar transfer may have applied to other units. A possible background for these displacements is a reshuffling of the units after the so-called ‘second war’ which is thought to have occurred in northern Britain in c. AD 123-125.¹⁹⁶¹

The British fibulae from Bonn and Neuss may have been brought there in the Flavio-Trajanic period by alae stationed previously in Britannia, but the identity of these alae could not be further specified. Since the fort at Moers-Asberg had been abandoned by c. AD 90 but the British fibulae from this site have contextually been dated to the 2nd century AD, it is difficult to associate these fibulae with military personnel. For the arrival of the British fibula at Utrecht-Domplein no satisfactory scenario could be found so far.

*Germania magna*

A region which has received not so much attention in the discussion of the archaeological categories in the previous chapters, is Germania magna, the Germanic territories across the Rhine. Various fibula types have their origin in the Germanic cultural region or are clearly influenced by it. The latter probably goes for the eye brooches with extra decoration, in Germanic style, on body and foot (variant 20f). The other Germanic fibula types have a clear concentration in northern Germany, especially in the Elbgemanic cultural region. An exception is constituted by fibulae of variant 40a, these are rather found west of the Elbe but still in the northern part of Germania. One fibula 40a is included in the table; it comes from Bunnik-Vechten.

Compared to the other fibula categories, those from Germania magna cover relatively equally the whole 1st century. For Neuss and Krefeld-Gellep only (cautiously) Flavian dated fibulae have been recorded, whereas Nijmegen-Kops Plateau and Valkenburg-fort have only pre-Flavian pieces. To the Germanic fibulae from Neuss a belt hook of Elbgemanic origin can be added, but this piece seems to be early rather than late 1st century in date. The Germanic trumpet head fibula from Xanten-Vetera I might be early Flavian, but a date around the middle of the 1st century is also possible. For Moers-Asberg, Nijmegen-Hunerberg and Bunnik-Vechten the chronological range of the Germanic fibulae covers both the pre-Flavian and the Flavian periods. Vechten stands out for a relatively large number of Germanic fibulae. It suggests that more than just one individual from North Germania found the way to Fectio.

If we leave out the perhaps rather indirect Germanic influence of the variant 20f fibulae, one clearly pre-Flavian piece remains. This is a so-called Vippachedelhausen fibula, found at Nijmegen-Kops Plateau. It points at the presence of somebody with an Elbgemanic connection in the pre-Claudian period. The presence of Germanic people at the other sites seems to be of a later date, possibly late 1st century but maybe rather early 2nd century. Although there is not yet convincing evidence for North Germanic men serving in the Roman army on a large scale and for a long period of time, it is possible that men from a region far outside the Empire served in the Roman army during the whole 1st century AD.

Following this line of thought, there might be an inscription shedding light on men from Germania magna serving in the Roman army. Alföldy mentions a

¹⁹⁶¹ See n. 1858.
funerary inscription from Praeneste, Italy, set up for a praefectus of a cohors Germanorum, an all infantry unit. Apparently, he held this position in the Lower Rhine area in the Claudian period or earlier. This implies that the named cohors Germanorum, which is not known from any other epigraphical source, was stationed in the Rhineland in the first half of the 1st century AD. The rather generic name of the unit suggests that the men recruited into this unit came not from one community, but rather from various Germanic tribes. Chronologically, the deployment of this cohort in the Lower Rhine area would fit the presence of the pre-Claudian Germanic fibula recorded for Nijmegen-Kops Plateau. Based on the number of fibulae, Bunnik-Vechten would be a good candidate as well, but here the fibulae appear to be too late to match the presence of the cohors Germanorum.

Noricum and Pannonia (Danube region)

Fibulae belonging to Norico-Pannonian dress have been well studied. In the Lower Rhine area they have been recognized at several sites, in varying numbers. At Neuss, Krefeld-Gellep, Moers-Asberg, Nijmegen-Kops Plateau, Bunnik-Vechten, Valkenburg-fort and Velsen 1 their number reaches not more than one per site. Moreover, the fibula from Velsen 1 seems to be a further development or imitation of an original Norico-Pannonian fibula type. Based on the general chronology of the site, the fibula must be pre-Flavian in date. For the other ‘isolated’ fibulae – all variant 14d – a date between AD 60 and 90 is preferred, but they can be as early as AD 25. It is likely that these fibulae were brought by individuals with a Danubian connection who came to the Lower Rhine area in the service or wake of military units which were probably not originally levied in the Danube region.

The relatively high number of eight Norico-Pannonian fibulae recorded for Alphen aan den Rijn, on the other hand, could very well be connected to a nominally Danubian unit. As it is assumed that the cohors VI Breucorum was stationed at this site, the fibulae may well be related to people connected to this unit. In view of the preferred date of this type, this unit most likely arrived at Alphen aan den Rijn in the Neronian or early Flavian period.

An even higher number of nine fibulae associated with the Norico-Pannonian region are listed for Nijmegen-Hunerberg. Their dates range from AD 15 to 90. Since it is known that the legio X Gemina stayed briefly at Carnuntum in the AD 60s before it came to Nijmegen, via the Iberian Peninsula, the presence of type 14 fibulae at the Hunerberg may well be related to men serving in this legion.

This leaves two Norico-Pannonian fibulae from Maurik, of which one is pre-Flavian in date, the other possibly later. The overlap in their date range could suggest that people with a connection with the wider Danube region arrived at Maurik around AD 70, perhaps just after the Batavian Revolt. The assumed garrison of Maurik in the Flavian period is cohors II Thracum equitata.

According to a military diploma issued in AD 65, this unit was previously stationed in Germany superior. It most likely was commanded from Germany superior to Germany inferior in AD 70. The two fibulae are not typical for the

1962 CIL XIV 2960; Alföldy 1968, 59, 202, no 120.
1963 The sequence of military offices held by this man – praefectus cohortis directly followed by praefectus equitum before tribunus militum – indicates that he was commander of the cohors during Claudius’ reign or before. Cf. Alföldy 1968, 121, n. 595.
1964 Alföldy (1968, 79) questions whether this unit consisted solely of men from Germania magna. They might also have included men from Germanic tribes who had their territories by that time on the Rhine.
1965 E.g. Garbsch 1965; Rothe 2013.
Thracian region. Perhaps people from the northwestern Balkan area joined the *cohors II Thracum equitata* before it arrived at Maurik. Finally, it must be noted that no Norico-Pannonian fibulae have been listed for Altkalkar, although there is epigraphical evidence for the presence of the *ala Noricorum* on this site dated to the Flavian period. This may be due to the overall small number of fibulae known from this site; those recorded seem to stem from pre-Flavian funerary contexts.

Apart from the fibulae several other dress accessories typical for the Danubian region have been recognized among the finds from Remagen and Velsen. However, the evidenced date of use for an enamelled belt fitting from Remagen lies much further back than the assumed presence of the *cohors VIII Breucorum*, originally levied on the Pannonian Plain. Perhaps the piece was kept as an heirloom or financial asset. The three items of a belt considered as part of the characteristic Norico-Pannonian female dress found at Velsen do have a 1st-century date. They tie in with the above-mentioned fibula with a Norico-Pannonian signature from Velsen 1.

### VII.4.b Synthesis

When the list of geographical regions indicated by the researched fibulae is considered, it becomes clear that certain parts of the Empire are lacking. These are the southern and eastern regions, in particular North Africa and the eastern Mediterranean. This image appears to confirm what Allason-Jones had already ascertained, namely that people in these parts of the Empire were not used to wearing fibulae as opposed to people in the northwestern provinces.\(^{(1)}\) Objects from Africa and the Greek East are also poorly represented among the earlier discussed graffiti and militaria. Other regions absent in this overview are Thracia and Dacia. Indications pointing at the Lower Danube territory have been found among the categories of graffiti and militaria, albeit few, but they could apparently not be recognized among the fibulae and dress accessories.

Remarkably well represented, on the other hand, are fibulae with a Gaulish connection. It seems, moreover, that these Gaulish influences predominantly appear in the pre-Flavian period. Heeren and Van der Feijst stated that the ‘exotic’ fibulae and the regional military fibulae seem to function as communicating vessels.\(^{(2)}\) This trade-off would then corroborate the hypothesis that new recruits or soldiers did not come from far away, that is from the original levy territories of the units, but were rather found in the area around the fort. However, mechanisms other than the mobility of people may have steered the production and distribution of fibulae, especially in Gaul. Even when it is considered that the image may be skewed by originally Gaulish fibulae which were more widely produced or copied, the particular indications for South Gaul, Central-East Gaul and North-East Gaul can in some cases be brought in direct connection to the presence of Gaulish units at the sites at hand.

Fibulae pointing to the Iberian Peninsula and to the Danubian region respectively are in general more difficult to place exclusively in either the pre-Flavian or the Flavian period. This might signal the arrival of people from these regions into the Lower Rhine region around the breaking point of AD 69/70. Fibulae with a British association occur mainly in the late 1st century and early 2nd century, as do the pieces with a North Germanic signature, although there are exceptions. North Germania already made its appearance among the militaria, but Britannia is not securely attested through either graffiti or militaria. In conclusion, the

\(^{1967}\) Allason-Jones 2013, 29-30. See also the introduction to chapter VII, p. 267.

\(^{1968}\) Heeren & Van der Feijst 2017, 283.
fibulae shed light on connections with parts of the Empire as well as regions outside of the Empire, that were in some cases already indicated by other material evidence, but in other cases appear here as new pieces to the puzzle.
VIII  Military diversity in the Lower Rhine area

VIII.1  New insights

The information gathered and interpreted in this study has provided many new insights in the stationing and movements of Roman army units in the Lower Rhine area during the 1st century AD. In some cases names of units can be added to the list of units attested per site (table 21, second column). All the indications together provide evidence of military men of very different backgrounds present in the Lower Rhine area.

Those indications have been derived from material culture. In the first chapter of this study three main routes were described along which military personnel may have brought foreign objects to the Lower Rhine area. If we take a Syrian object as an example, this may have been brought to the Lower Rhine area by a Syrian soldier as a member of a Syrian unit, by a Syrian soldier as a member of a non-Syrian unit or by a non-Syrian soldier who had previously been stationed in Syria. It must be underlined that the emphasis is on the influence of the army. Objects will have travelled with people outside the army as well, with merchants playing a key role. However, in the selection of the archaeological sources analysed in this study the influence of trade has been avoided as much as possible. This allowed the perceived presence of certain foreign objects to be translated into the presence of foreign people or foreign connections. In the first two of the three described main routes the origin of the object was shared by the soldier who had taken the object with him. In the third scenario, the origin of the object reflected the former station of the soldier with whom the object had travelled to the Rhineland. In all three scenarios, the mobility of the objects translated into the mobility of people connected to the Roman army. In this way it becomes clear how the presence of foreign material culture in the Lower Rhine area reflects the diversity of the soldiers of the Roman army operating there.

The high diversity across all the sites in the research area makes it difficult to identify specific auxiliary units at individual sites. If a concentration of, for example, indications pointing to Gaul had been discovered at a military site with practically no other geographical markers, it would be obvious to connect this with a unit originally levied in Gaul or perhaps recently transferred from Gaul. However, most sites have yielded connections with various geographical regions. At the same time, not one geographical region is present at less than four sites.

For the noted diversity in ethno-cultural indications various explanations are possible. It can be the result of a rapid succession of military units or of the simultaneous stationing of multiple detachments of units at one site. However, the observation that non-ethnical recruitment occurred already early on offers another explanation. When units after their initial creation were stationed in a

1969  See p. 16.
different area before they were sent to the Lower Rhine region, they could well have absorbed local men in their ranks.

In the following sections the findings are summarized at the three levels distinguished in the previous chapters: legionary and auxiliary forces, infantry and cavalry forces, and geographical indications.

VIII.1.a Legionary and auxiliary forces

For nine of the listed military sites in the research area there is evidence for the presence of legionary soldiers (table 22). Not surprisingly, three of the four legionary fortresses – i.e. Neuss, Xanten-Vetera I and Nijmegen-Hunerberg – feature among them, but legionary indications are also present at Dormagen, Nijmegen-Kops Plateau, Arnhem-Meinerswijk, Bunnik-Vechten and Woerden. However, the graffito from Arnhem-Meinerswijk is uncertain, and the armguard from Till-Steincheshof may well be related to the presence of cohors II equitata civium Romanorum pia fidelis.

If the evidence for the presence of Roman citizens is added, the number of sites with tentative legionary indications increases to twenty. The input from this category strengthens the idea that legionary forces were stationed at Bunnik-Vechten in the pre-Flavian period, probably in the earliest phase. For Remagen, Dormagen, Moers-Asberg and Altkalkar it is assumed that detachments of legions were stationed there in the pre-Flavian period. The garrison of Velsen was probably of a more mixed nature. The Roman citizens attested at Utrecht-Hoge Woerd, Woerden, Alphen aan den Rijn and Leiden-Roomburg are more likely to have been members of auxiliary units, because at these sites, with the exception of Alphen aan den Rijn, the cohors XV Voluntariorum is attested. At Utrecht-Hoge Woerd there is also evidence for another auxiliary unit in which citizens may have served, the cohors I Classica. The graffiti referring to Roman citizens at these sites predominantly date from the Flavian period. Since the evidence for the two auxiliary units at these sites is Flavian as well, the graffiti belong most likely to auxiliary rather than legionary soldiers. The post-Claudian record from Cologne-Alteburg may be related to a member of the fleet who had only recently received Roman citizenship, whereas the indications from Xanten-pre-colonia and Xanten-Alte Rhein most likely stem from legionary soldiers.

For most of the various river finds showing graffiti of Roman citizens with often a strong Italic signature, an association with legionary soldiers seems obvious, although it cannot be ruled out that these men served as soldiers in citizen auxiliary units operating in the Lower Rhine region.

When these findings are compared with the table with units known from other sources (table 21), they provide new information for the garrisons of Remagen, Moers, Bunnik-Vechten, Woerden, Alphen aan den Rijn and Velsen. In addition, the suggestion has been put forward that there might have been a fortification garrisoned by legionary soldiers in the area between Heteren-Driel and Doorwerth.

As for auxiliary indications, the analysed categories provide evidence for the presence of auxiliary units at ten sites in the research area. For Bonn, Maurik, Utrecht-Hoge Woerd, Woerden, Leiden-Roomburg and Valkenburg the attested units are cohortes peditatae or equitatae. Based on the data analysed in this study, auxiliary cavalry was stationed, as part of alae or cohortes equitatae, at Neuss, Xanten-Vetera I, Nijmegen-Kops Plateau, Valkenburg and Velsen (table 22). In particular the abundance of horse gear recovered from the Kops Plateau suggests that an ala rather than a mixed cohors equitata was stationed there. Notably,
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<tr>
<th>Findspots / military sites</th>
<th>Units attested by graffiti and militaria</th>
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Table 22 Indications for legionary and auxiliary forces and for infantry and cavalry: Red = pre-Flavian, blue = Flavio-Trajanic, black = generally 1st-century AD. ▲▲ = certain attestations; □△ = possible attestations; □ = graffito, ▲ = piece of military equipment.
the markers for auxiliary cavalry have all but one been dated to the pre-Flavian period, whereas most markers for auxiliary infantry (table 22) are Flavian.

For several sites the analysis of the selected categories has yielded names of units which were previously not attested in the literary sources, monumental inscriptions or brick stamps. The names evidenced by mainly graffiti are listed in the second column of table 21. The presence of legio VIII Augusta at Bunnik-Vechten and legio V Alaudae at Xanten-Vetera I and Woerden is evidenced by inscribed sling bullets, which have been discussed in the chapter on militaria.

VIII.1.b Infantry and cavalry

In the section on graffiti it was established that infantry indications were significantly better represented than cavalry indications. For the markers distilled from the militaria, the balance tilted to the other side. When the information gathered from the analysed sources is considered together, the differences are to a certain extent levelled out (table 22). Infantry as well as cavalry soldiers were present at fifteen attested military sites. Markers for only one category were collected on eight attested military sites. The three last entries in the table concern river finds, and are thus not directly linked to a military site. Finally, for seven sites no indications for infantry or cavalry could be listed.1970

Since each legion included a small cavalry force, legionary cavalry can be an explanation for the occurrence of indications for both infantry and cavalry at one site, especially at legionary fortresses. However, for Xanten-Vetera I, there is circumstantial evidence that the cavalry indications in question may at least partly refer to auxiliary forces. For auxiliary forts an apparent co-occurrence can better be explained by the presence of a mixed unit, a cohors equitata, as at Valkenburg, or by the succession of units or detachments, as at Moers-Asberg. In some cases it may, however, be related to a mixed garrison of legionary and auxiliary soldiers. Literary sources already described this for castellum Flevum,1971 presumably Velsen, and may also apply to Nijmegen-Kops Plateau with its legionary graffiti.

For several military camps along the Lower Rhine there is evidence for the presence of infantry and cavalry soldiers. There are pre-Flavian markers for cavalry at Krefeld, but they may well belong to soldiers involved in the battle fought there during the Batavian Revolt. Forces in battle are also the best candidates for the indications recovered from the Alte Rhein at Xanten. The infantry and cavalry markers from Xanten-pre-colonia may be related to the military occupation on the nearby Fürstenberg as well as to military activity on the site of the later colonia itself; the latter is more likely for the indications dated to the Flavian period. At Herwen-Bijlandse Waard there is evidence for pre-Flavian infantry. The garrison of Nijmegen-Kops Plateau consisted for a considerable part of cavalry, most likely of auxiliary status. Nijmegen-Hunerberg has yielded, not surprisingly, indications for pre-Flavian infantry, which can be related to Augustan troops. From the Museum Kamstraat cemetery comes a graffito pointing at cavalry, perhaps to be connected with legionary cavalry or otherwise with troops stationed on the Kops Plateau. The forts at Kesteren, Bunnik-Vechten and Utrecht-Hoge Woerd housed, probably already in the pre-Flavian period, cavalry forces which seem to have been auxiliary. Pre-Flavian infantry markers have been found at Woerden; they include a reference to legionary forces. At Zwammerdam there is evidence for infantry in the pre-

1970 This can be explained by the use of only indicative 1st-century militaria in this study. See p. 195-197.
Flavian period, and both infantry and cavalry in the Flavian period. Finally, infantry soldiers were present in Alphen before and after AD 70.

These new findings can be compared with Géza Alföldy’s judgement that in the early-Flavian period the cavalry units, and with this he means the alae, were concentrated in the middle section of the Lower Rhine region. In Alföldy’s division this is the stretch between Altkalkar and Cologne. Cohortes peditatae and equitatae garrisoned the forts on either side of this section. According to Alföldy the reason behind this arrangement were defensive tactics. In the early Flavian period the areas inhabited by the Cananefates and Batavi were relatively quiet, as was the region around Bonn. The areas on the right bank of the Rhine opposite Xanten, Neuss and Cologne, on the other hand, would have been more threatened, especially the valleys of the rivers Lippe, Ruhr and Wupper. The number of Germanic people inhabiting these parts increased considerably during the 1st century AD. Because the cavalry units were very mobile, considerably more than the regular infantry units, they were stationed in this more turbulent section of the Rhine frontier to keep the situation under control.

After Alföldy had published his monograph, more diplomas issued to members of the army of Germania inferior were found. According to Haalebos, the listing of the alae does not show any clear geographical arrangement. Furthermore, the alae are listed in different orders in the respective diplomas. This pleads against the idea that the listing of the units in the diplomas, at least for those pertaining to Germania inferior, is based on a geographical order from east to west or vice versa.

Nevertheless, a concentration of alae in the area from Altkalkar to Cologne seems to be reflected in the archaeological material. Looking at table 22, indications for pre-Flavian cavalry are indeed most numerous in the eastern part of the research area. The pre-Flavian indications for cavalry in the western part can often be related to a partly-mounted cohors rather than an ala. However, the high number of cavalry markers on the Kops Plateau in Nijmegen are probably also the material residue of an ala. In addition, the focus on the alae must not overshadow the presence of cavalry soldiers in general in the western part of the Lower Rhine area. In sum, there seems to have been more cavalry present west of Altkalkar than previously assumed, especially in the pre-Flavian period.

VIII.1.c  Geographical indications

When all the markers with specific geographical associations are brought together, a diverse but complicated image emerges. Some sites and some of the areas of origin remain poorly represented, as becomes clear from table 23, but on the whole the three archaeological categories strengthen each other. The greatest diversity among the studied categories, considered per geographical region, is found among the markers for the Iberian Peninsula, especially those at Nijmegen-Kops Plateau; they are present here among the graffiti, the militaria as well as the fibulae.

Here it must be noted that the size of the respective data sets is relevant. An absence of a certain group of markers is more telling with a large data set than with a small data set. For instance, the lack of British indications at Remagen is less significant than the absence of the same group at Nijmegen-Kops Plateau.

1972 Alföldy 1968, 157-158, mentioning six alae stationed in this middle section.
1973 Alföldy 1968, 158-159.
1974 Haalebos 2000, 44.
Nevertheless, it can be stated that there is much diversity, expressed in bold terms as ‘everything is everywhere’.

The greatest geographical diversity is found in Nijmegen, followed by Neuss, Moers and Bunnik-Vechten. These diverse indications mainly date from the pre-Flavian period. This phenomenon can be explained by the early starting date of these sites and by their mixed garrisons, for there is evidence that in the early days legionary and auxiliary soldiers were housed together within the walls of the fortifications. A third explanation might be the extraordinary mobility of military units in this early period, which seems to be reflected by traces of frequent rebuilding encountered at various military sites in the region.\footnote{1975}

Strikingly, there are no significant concentrations of particular geographical markers at individual sites. Most groups of geographical indications are spread over the entire research area. In other words, the presence of for instance an infantry cohorts levied in the northwestern part of the Iberian Peninsula or of an ala raised in northern Gaul is not easily deduced from the data. One or two markers for a certain geographical origin at a site could of course point to one or two men serving in a unit recruited in their homeland, but statistically they could equally well have ended up in a unit levied in a different, relatively remote region.\footnote{1976} Having said that, a few concentrations at some sites are significant enough to be associated with specific auxiliary units or, alternatively, with a former station in a specific region. The markers for the region of Noricum and Pannonia listed for Alphen aan den Rijn, for instance, can be connected with the assumed presence of the cohors VI Breucorum.

Comparing the different geographical categories, the indications pointing to Gaul in general are the best represented. This image could be skewed if there was a large-scale production of fibulae in northern Gaulish cities already at an early stage, as has been surmised. On the other hand, if we consider the other Gaulish indications, in particular those for southern and eastern Gaul, it seems that people from Gaul were involved with the Roman army in the Lower Rhine area especially in the pre-Flavian period. The Gaulish markers concentrate from Nijmegen to the east.

This concentration may be due to a chronological difference in the establishment of the military settlements along the Lower Rhine. Those in the western part generally date from the early 40s, with the exception of Velsen and Bunnik-Vechten, whereas a large number of those in the eastern part, from Xanten until Remagen, already started in the Augustan era. Since most of the Gaulish indications are pre-Flavian, their dominance in the eastern part can be explained by their relatively early date. For some sites there is evidence for the presence of units levied in Gaul. Epigraphic sources already attested the presence of an ala Gallorum at Neuss and an ala Tungrorum at Moers. When the data from Nijmegen-Kops Plateau is compared, there seems to be enough ground to propose the presence of an originally Gaulish unit here as well, with indications pointing to eastern and northern Gaul.\footnote{1977} The suggestion has been put forward that the ala Gallorum et Thracum Classiana c.R., the ala Gallorum Proculeiana

\footnote{1975} E.g. at Cologne-Alteburg (Duerkop & Eschbaumer 2007, 16-17), Moers-Asberg (Deschler-Erb 2012, 14, 16, fig. 3) and Valkenburg-fort (Glasbergen & Groenman-van Waateringe 1974, esp. 20-21).

\footnote{1976} The absence of evidence for continued ethnic recruitment has been highlighted on p. 80-84.

\footnote{1977} Note that coin finds indicate a connection with northwestern Gaul. See below, n. 2000.
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Table 23 Geographical indications in all three categories. Red = pre-Flavian, blue = Flavio-Trajanic, black = generally 1st century AD.
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<th>Noricum / Pannonia</th>
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Table 23 (cont.)  ■ ▲ = certain attestation; □ ▲ = possible attestation;  ■ = graffito, ▲ = piece of military equipment, ● = fibula or dress accessory.
and the *ala Treverorum* are candidate units for part of the garrison of the Kops Plateau fortifications.

An early character applies to most of the indications pointing to Italy1978 and the Iberian Peninsula, and to a lesser extent the Greek East. Men from Italy and the early incorporated regions bordering the Mediterranean Sea, including the southern and eastern part of the Iberian Peninsula, probably served as legionary soldiers. The indications pointing to this Mediterranean heartland gathered at Bunnik-Vechten support the presence of legionary soldiers in the pre-Flavian period, as do the indications for the Iberian Peninsula at Moers-Asberg and Moers-Lauersfort. Those for the Iberian Peninsula encountered at Herwen could perhaps have been left by members of the *legio I Germanica*. Since the Iberian markers discovered at Nijmegen-Kops Plateau contain militaria, related to both infantry and cavalry, a (partly) mounted auxiliary unit may have been stationed here, although a connection with legionary soldiers is also possible. Similar pre-Flavian indications at Bunnik-Vechten could underpin a pre-Flavian presence of an originally Spanish unit.1979 At Alphen aan den Rijn a Flavian marker for the Iberian Peninsula may indicate the presence of an auxiliary unit with an Iberian connection. Iberian indications are conspicuously lacking at the legionary fortress of Bonn, but this might be due to a difference in available data. For instance at the level of the graffiti, the most informative category, the dataset for Bonn is almost five times smaller than that for Neuss.1980 Moreover, the legionary fortress at Bonn was only built around AD 30,1981 resulting in less material on which legionary soldiers may have left their mark in comparison to the other legionary fortresses in the region.

Among the associations with Britannia, the general Celtic territory, northern Gaul and neighbouring Germany, and the Lower Danube region later, Flavian dates dominate. The relatively late onset of recruitment in Britannia and Dacia provides a plausible explanation for this phenomenon. British markers stand out at Cologne-Alteburg, Nijmegen-Hunerberg and Alphen aan den Rijn. Those at Alteburg may be related to fleet soldiers. For the Hunerberg brick stamps have already evidenced the presence of a *vexillatio Britannica*. For Alphen aan den Rijn other sources did not yet reveal the presence of soldiers with a British connection. Perhaps the attested *cohors VI Breucorum* brought them to Alphen aan den Rijn from a former station, but it must be considered that soldiers of a different unit were responsible for leaving these markers.

Northern Germania is particularly well represented at Nijmegen-Kops Plateau as well as at Bunnik-Vechten, but with a difference in time. The indications on the Kops Plateau are pre-Flavian, and likely to be connected with men from these northern regions fighting under Roman command in the Augustan, perhaps the early Tiberian period.1982 At Bunnik-Vechten there seems to be more evidence for a later Germanic connection. It is questionable whether they signal soldiers; perhaps they were brought to Vechten by civilians who lived and worked in the vicus.

For Noricum and Pannonia there are two notable clusters, at Nijmegen-Hunerberg and Alphen aan den Rijn. For the latter the responsible unit is known...
from epigraphical sources: *cohors VI Breucorum*. The fibulae point to an arrival of this unit in the Neronian or early Flavian period. The indications for the Norico-Pannonian region on the Hunerberg are probably related to the brief stay of *legio X Gemina* at Carnuntum in the 60s AD.

Indications for the remaining geographical categories are considerably less numerous. They contain, however, some interesting information. Thracian markers are not recognized for the pre-Flavian period, although at least one nominally Thracian unit is known to have been stationed in the Lower Rhine region before AD 70. The impression is that the majority of soldiers from this region arrived relatively late, not necessarily in a unit with the same ethnic origin. Under the heading of the neighbouring Lower Danube region appear also markers with a certain pre-Flavian date. These markers are probably from the more western part of this region, bordering on Pannonia. The certainly pre-Flavian connection with Africa at Utrecht-Hoge Woerd probably represents a displacement rather than a native origin.

Finally, the markers for the Greek East present some new information, but not all are easily explained. As a rule, fleet soldiers are likely candidates for connections with the Greek East. However, as has already been mentioned, not all sites which have yielded these indications were fleet stations. Perhaps the Greek names from Neuss belonged to the attested *ala Parthorum veterana*, although it must be noted that known members of this unit have Semitic and Persian names, not Greek. Greek names would certainly fit the *cohors Seleucensium*. So far there is only evidence for this unit at Bonn and at Moers-Asberg, but it is not impossible that members of this unit also stayed at Neuss and at Nijmegen-Kops Plateau, where some names pointing to the Greek East occur. Another possibility is that the Greek names belong to former fleet soldiers who had been enlisted into citizen cohorts after they had received Roman citizenship. In addition, it must be considered that Greek names were often borne by slaves and freedmen.

In sum, the geographical indications brought together in this analysis proved to be more diverse than was expected at the onset of the research. Previously it was thought that legionary soldiers were largely confined to the legionary fortresses. The analysis has shown that they were present at more sites. Furthermore, it was assumed that auxiliary units remained fairly ethnically homogeneous for the larger part of the 1st century AD, but the high geographical diversity presented here across the pre-Flavian as well as the Flavian period strengthens the idea that non-ethnic recruitment started earlier than is generally assumed. In addition, the diversity has a wide range, including regions as far apart as northern Germania and Africa, with a strong early presence of men from the southwestern parts of the Empire.

In this overview the regional men, especially those of Batavian stock, stayed largely out of sight. This is mainly due to the explicit focus on foreign material culture. However, the helmets with organic covers considered to be typically Batavian may be rather Gaulish or even from further away. Furthermore, the markers from the Kops Plateau at Nijmegen, which was assumed to have been the main station of the Batavian cavalry for some time in the pre-Flavian period, are so numerous and diverse that it can be questioned whether it can have been the main station of the *ala Batavorum* at all. The Batavians’ lack of visibility in the analysed material does not prove that they were or were not stationed in the Lower Rhine area in the pre-Flavian or Flavian period. Still, the ascertained

1983  *Cf. AE* 1959, 188.
1984  See n. 1024.
1985  *Cf. n. 441.*
high level of diversity, during the whole 1st century, suggests that there was not much space left for Batavian units, certainly when they were ethnoculturally homogeneous.

**VIII.2 Conclusions**

Taking some distance from the details, a number of conspicuous features and tendencies can be grasped. First of all, the recruitment practices for auxiliary units have turned out to be more dynamic than previously assumed. There is evidence for early non-ethnic recruitment but practically no evidence for continued ethnic recruitment, and when new recruits were needed, Roman authorities drafted them from the most convenient source. The latter did not need to be local or regional, i.e. in the same province as where the unit wanting new recruits was stationed at the time. As for the deployment of units, more dynamics must be considered as well. There is evidence for different types of units being stationed together, for units being split up and military camps being manned by only part of a unit, and for a rapid succession of garrisons at individual sites.

Focusing on the pre-Flavian period, the selected archaeological categories convey us names of legions and tria nomina of Roman citizens in too great a number outside of legionary fortresses to be incidental. Emphasised by the recurring pattern, we may assume that legionary soldiers were also stationed in smaller forts, presumably together with auxiliary or fleet soldiers.\(^{1986}\)

If the research area is divided into two parts, with Xanten as the geographical pivoting point, infantry dominates in the part west of Xanten, with the exception of Bunnik-Vechten and Nijmegen-Kops Plateau. In the eastern part, the image is reverse. Here, cavalry indications outnumber infantry, with the exception of Xanten-pre-colonia, but it must be noted that in the latter case most indications could not be securely dated to either the pre-Flavian or the Flavian period.

Regarding the geographical indications, markers for Gaul overshadow the others. Indications for Italy, including early incorporated regions bordering the Mediterranean Sea outside of Italy, and the Iberian Peninsula often coincide with indications for legionary personnel. Men from the Hellenophone East may well have served in the fleet, but certainly not exclusively. For Greek markers at Neuss an association with fleet soldiers is not impossible, although so far no traces of a naval base have been discovered, but for the Kops Plateau at Nijmegen such an association is practically out of the question, given its location. Finally, the possible association between the general Celtic markers and people from the Danube region is stronger for the Flavian period, as will be discussed below.

For the Flavian period, legionary indications are considerably less numerous. Although a legionary fortress still existed at Neuss after the Batavian Revolt, contrary to the situation at Vetera I, Flavian indications for legionary personnel are nevertheless lacking at this site. This may be explained by the fact that most indications do not come from the terrain of the Koenenlager. Notably, the presence of Roman citizens in the Flavian period is attested at Woerden and Leiden-Roomburg. This could mean that legionary soldiers were still also deployed outside of legionary fortresses, but since the presence of an auxiliary

\(^{1986}\) See n. 1003-1004.
citizen unit is evidenced at both sites these men carrying *tria nomina* were probably no members of a legion.

On the whole, indications for either infantry or cavalry are not numerous for the Flavian period. This is certainly influenced by the abandonment of Xanten-Vetera I and Nijmegen-Kops Plateau, but more importantly by chronology itself, since the Flavian period covers only a third of the 1st century. Another explanation can be found in the smaller numbers of new auxiliary units being levied in the Flavian period.\footnote{1987} Considering that the Flavian infantry and cavalry indications are substantially less in number than the pre-Flavian indications, they hardly appear in the eastern part of the research area. In the western part there are more infantry than cavalry markers. The known presence of alae in the research region after the Batavian Revolt is not confirmed by an abundance of typical cavalry markers. The evidence for infantry in the delta is not surprising, since it will have been much more difficult to handle and effectively deploy cavalry units in the wet landscape of this most western part of the research region.

On the level of geographical indications, markers for Gaul have almost disappeared from the record, as have markers for Italy and the Iberian Peninsula, with the single exception of probable Flavian indications for these groups from the Flavian legionary fortress at Nijmegen-Hunerberg. Markers pointing to the Danube region do not appear in great numbers, but they are present here and there in the western part of the research region, albeit rarely securely dated to the Flavian period. Noting a similarity in the distribution pattern of general Celtic and Norico-Pannonian indications, it seems likely that there are in particular markers left by people from regions along the Danube present among the general Celtic indications cautiously dated to the Flavian period.

When the pre-Flavian situation is compared with the Flavian situation, some remarkable differences and trends have come to the fore. First of all, legions are no longer visible outside of legionary fortresses in the Flavian period. This ties in with the scarce presence of Roman citizens in the same period, although it must be noted that there might have been a general, not necessarily related decrease of graffiti with *duo* and *tria nomina* over time.\footnote{1988} Secondly, cavalry is badly visible in the Flavian period. The contrast is particularly distinct by the absence of Flavian material from two strong cavalry sites in the pre-Flavian period, namely Neuss and Nijmegen-Kops Plateau. Thirdly, among the geographical indications the Gaulish markers have all but disappeared by the Flavian period. Markers for Italy and the Iberian Peninsula have been reduced less radically; they are still present, but only in small numbers. People from Germania seem to have been present in the pre-Flavian as well as the Flavian period. Connections with Britannia are a new phenomenon appearing in the Flavian period. Indications pointing to the wider Danube region have a stronger presence in the Flavian period, but are already encountered before AD 70 in the Lower Rhine region. Markers for associations with the Greek East and Africa appear only sporadically.

With the main differences between the pre-Flavian and the Flavian period accentuated, it can be concluded that the origin of auxiliary units can incidentally be established on the level of individual sites. On a higher level it is interesting to recollect Alföldy’s judgement that before AD 70 most units stationed in Germania inferior were of Germanic and Gaulish origin. After AD 70, in his opinion, there were no more regional Germanic units in the Lower Rhine region, and only the alae were Gaulish.\footnote{1989} The tendencies emerging from this study

\footnote{1987} The smaller their number, the less visible or identifiable they will have been in the archaeological record by cultural elements brought from the regions of origin.
\footnote{1988} See n. 414.
\footnote{1989} Alföldy 1968, 148. See also section IV.4.b, p. 62-67.
tie in with this to the extent that Gaulish elements are well represented in the pre-Flavian period, but there were also various non-regional elements present in that period. The strong Iberian component will have included men serving in auxiliary units. Similar to what Alföldy described, the Gaulish presence diminishes in the Flavian period, and more exotic, non-regional elements are added to the range of geographical indications identified. But there are also constant factors: influences from Germania and from the Danube region are present both before and after AD 70.

VIII.3 Evaluation of chosen method

The decision of selecting three main categories of archaeological sources to investigate the composition and deployment of the Roman army has proven itself to be worthwhile. Not surprisingly, the most interesting and extraordinary information generally comes to the surface on its own, as becomes clear from finds that have already been published separately. On the face of it, an integral and comprehensive study of all the material available would thus seem to be not worth the effort. However, this impression is superficial. A more detailed look at the results makes clear that analysis of one archaeological source or category has brought more or different insights than analysis of the others. For instance, Germanic names are missing among the graffiti from Nijmegen-Kops Plateau, but Germanic militaria can be recognized on the same site. If only one category had been selected, such additional relevant information had been missed. Moreover, it is the coherence between several categories, illustrated by Iberian markers in all three categories at Bunnik-Vechten, that strengthens the insights distilled from these data.

Initially, ceramics and coins were also chosen to be investigated next to graffiti, militaria and fibulae, but pilot studies revealed quite soon that including these categories in the research in the same way as the other three was not feasible. For the coins, the number of available objects appeared too small, and for the pottery the yield was too low to make it viable within this project. These two categories therefore remain desiderata to be researched in more detail in the future. Still, to illustrate that the potential of archaeological sources in this respect is not limited to scratched names, military equipment and brooches, a few examples of the categories pottery and coins will be brought to the fore.

Hand-thrown pottery is a likely candidate to track down foreign traditions. In military ceramic assemblages the component of hand-thrown pottery is generally the largest in the earliest phases. This pottery is predominantly of a local or regional origin, and probably indicates trade with the local population. As soon as transport routes with the hinterland of the Empire were established, the demand for hand-thrown pottery at the military sites apparently rapidly declined. In some cases, however, the hand-thrown pottery could be identified as of a more exotic origin. Two vessels encountered among the ceramic material collected at Xanten-Vetera I may have been brought to the Fürstenberg by soldiers from a previous station in Gaul. On the Kops Plateau in eastern Nijmegen at least three specimens of hand-thrown pottery were discovered which showed strong similarities to pots from the cemetery La Catalane in Les Baux-de-Provence, situated in the Rhône estuary. This signals the presence of

people with a southern Gaulish connection on the Kops Plateau. Further finds, especially a rare fibula type, corroborate this, as has been shown in this study.

At Woerden fragments of marbled pottery have been unearthed which stand out from other marbled wares known from the Lower Rhine region. Fine pottery made in this particular type of fabric seems to originate from the Wetterau region in Hessia. Possibly, the marbled ware encountered in Woerden was brought there from this region. The find contexts at Woerden suggest that it did not arrive before AD 80/90. It is thus imaginable that people connected to the Roman army travelled from the Wetterau region to Woerden in the late 1st or early 2nd century AD.

The analysis of coins collected at military sites in the research area has led to the discovery of several pieces standing out from the regular coin supply intended for the Roman army in the Rhineland. At Xanten-Vetera I, a relatively high number of early Spanish coins has been connected with the arrival of the *legio V Alaudae* after AD 9, which was previously stationed on the Iberian Peninsula. The legion had taken part in the Cantabrian Wars (30-19 BC) before it was ordered to go north, first to Galia Belgica and then to Germania. Another candidate could be *legio I*, which might have called at the Fürstenberg on its way to the Lippe region, as suggested by María Paz García-Bellido. In that case, the coins will have been deposited years before AD 9, and thus well before the arrival of the Fifth Legion.

Coin finds from the Kops Plateau at Nijmegen are being studied in detail by Paul Beliën. They include two notable exotic categories, namely coins minted on the Iberian Peninsula and Celtic coins. Regarding the latter, it is generally assumed that Celtic coins discovered outside their general circulation areas can be connected with activities of the Roman army. Most of the Celtic coins unearthed on the plateau appear to have been struck in Northwest Gaul. This might signal the presence of men of various Gaulish tribes or of men who had spent some time in these Gaulish regions, with a clear focus on the northeastern part of Gaul. For coins minted on the Iberian Peninsula it has been established that some of those found on the Kops Plateau have a relatively early date. This might indicate that they arrived during the earliest phase of the fortification. It has been pointed out that these coins most likely were brought there by soldiers of the Roman army who were transferred from the Iberian Peninsula to the Rhine and Lippe regions after the Cantabrian Wars. Beliën puts forward the suggestion that it might have been soldiers of *legio I* or *legio II*. Both legions are thought to have left the Iberian Peninsula in 13 BC.

The three selected archaeological categories encompassed especially material culture of a personal significance, which was not so readily distributed on a large scale through for instance general trade or supply by the army. The most informative were the graffiti, which were also the most numerous. The militaria, on the other hand, were most difficult to analyse and evaluate. Fibulae

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1993 This concerns a fibula of variant 16b. See n. 1761.
2000 Under the northwestern tribes are grouped the Nervii, Atrebates, Pagus Catuslogi, Remi, Viromandui, Velocasses, Sueciones and Carnutes, although the latter two are perhaps better labelled as central Gaulish tribes. The Petrocorii had their territory more to the southwest, in the modern-day Périgord. The Treveri and Mediomatrii, on the other hand, lived in the northeastern part of Gaul.
2001 Beliën 2008, esp. 186-188.
and militaria were less informative than the graffiti, but nevertheless brought to light additional information. Especially with the focus on the Kops Plateau at Nijmegen it becomes clear that the various archaeological categories, the selected sources of information, strengthen each other. This is further illustrated when the relative contribution of the three selected archaeological categories is evaluated, especially focusing on which groups of indications are absent or nearly absent. If only the graffiti had been used as a source, all the indications for the Greek East would have been included, but the markers for southern Gaul, eastern Gaul and Britannia would have been left out, for these regions are only represented by fibulae. Practically absent from the fibulae, on the other hand, are indications for the Greek East, Africa, Thracia and Dacia. Not encountered among the graffiti are indications for Germania magna and Scandinavia, but this is compensated by militaria and fibulae associated with these regions.

The chosen method has yielded insights not only into the composition and deployment of the Lower German army in the 1st century AD, but also into the selected categories of graffiti, militaria and fibulae. For a number of object types, as diverse as graffiti starting with a single T, ring bits, masked helmets with organic covers or ring fibulae, this research has provided new perspectives and lines of investigation. Looking beyond the 1st century AD, it would be fruitful to apply a similar method to the composition and deployment of the army in the 2nd century, especially with available graffiti. Among the discussed graffiti already a few examples featured that offer a glimpse into the army population of the subsequent period. Militaria and fibulae seem to be less fruitful for that later period, because during the 1st century they developed into easily available and thus common types, which is, in itself, also important to note.

Some methodological problems came to the fore during the process. One of the more general issues was the difficulty of dating. Graffiti on securely datable pieces of terra sigillata and rare, short-lived types of fibulae offered the most fruitful sources of information. However, a large number of graffiti and fibulae and most of the militaria were difficult to date. Another problem lies with objects that appear too early for their find contexts. Examples are the belt fitting from Remagen and the single-edged sword from Woerden. Multiple explanations are possible for such cases of incongruity, such as a new dating argument for the object in question or rather for the context in question, or the extended use of an object, for instance as an heirloom. It depends on the characteristics of each case (object, site, context) which explanation best fits the situation.

This study is based on readily available material with a focus on the most promising categories, for it soon became clear that a systematical, large-scale approach was not feasible because of the limited accessibility of finds from a large number of sites. The outcome shows the potential of the approach, but more material would yield more and better quantifiable results. An enlargement of the available data would also make it possible to perform data analysis on a larger scale. This would offer the possibility, for instance, to make an inventory of the pieces of horse gear collected per site, and compare this to the overall number of finds. The relative values of horse gear per site could indicate whether cavalry had been stationed there. The ways in which data mining and data analysis are now developing could offer new possibilities for this kind of archaeological research as well.

Looking ahead, the developments in other scientific fields may hold opportunities to get a better view of the mobility and configuration of the Roman army. To name one, the analysis of stable isotopes could reveal the origin of animate and inanimate objects. Through this it could be ascertained whether the inscribed lead sling bullets were made from lead mined on the Iberian Peninsula or in Germany. Another example are horse burials. Analysis of especially strontium
and oxygen isotopes stored in the animal bone collagen could potentially indicate, if the right material is preserved sufficiently, where the horses have been bred. Certainly when they appear to have been raised not locally, this offers a new perspective on the subject.

**VIII.4 From diversity to transformation**

This study has brought more insight into the composition and deployment of Roman army units operating in the Lower Rhine area during the 1st century AD. At the same time, it has increased and refined our knowledge of particular archaeological categories: graffiti, militaria and fibulae. What has become clear, without a doubt, is that the composition of that Roman army was far more diverse than previously thought, which means that the input to the process of cultural transformation also contained more diverse components. The mobility of the Roman army appears also to have been higher, including scenarios of units being divided among neighbouring sites and some units staying for relatively short periods at consecutive sites. Furthermore, the analysed data indicates that continued ethnic recruitment was an exception rather than a rule, and that the resulting homogenisation of the auxiliary army corps set in relatively early.

Throughout the 1st century AD men from all corners of the Empire came to the Lower Rhine area in service of the Roman army. Their influence did go beyond the walls of the forts they garrisoned in. This was not in the least effectuated by the women and children who followed in their wake, as has been argued. They may be expected to have lived in the settlements adjacent to or surrounding the fortifications their male relatives were stationed in. Besides, new ideas and objects were introduced by the soldiers and their relatives to other inhabitants of these settlements, such as traders and craftsmen. From there, culture was further disseminated. The extent of the army’s impact on those extramural settlements is poignantly illustrated by the rapid decline of the canabae that had developed around the fortress of *legio X Gemina* on the Hunerberg in Nijmegen. When the legion was transferred, activities in the adjacent civil settlement died out.

The hybrid, multilateral nature of the cultural transformation process that resulted in a new cultural universe under Rome’s rule can be recognized in the material culture discussed in this study. For instance, the name Artuus, encountered at Bunnik-Vechten, seems to be a new creation based on a Gaulish stem but taking the shape of a Latin cognomen ending in *-us*. The helmets with textile covers from Nijmegen-Kops Plateau and Xanten-Alte Rhein are another example of new creations in which apparently various traditions are combined. Elements of the design of these helmets have been recognized separately in helmets found in different parts of the Roman world, but exact parallels have not been found outside the Lower Rhine area. Among the fibulae the dragonesque brooch, such as the one from Utrecht-Domplein, illustrates how new material culture was created under Rome’s rule. These zoomorphic brooches, to quote Hunter, ‘regularly feature in books on Celtic art

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2002  Cf. Dövener, Oeschlägel & Bocherens 2018, 199-201, on the possible biography of a dromedary found in Mamer-Bartringen, Luxemburg. It seems very likely that this animal, which appeared to have been born in Egypt, reached Mamer as a beast of burden of the Roman military forces shortly before AD 259/260.
2003  See in particular n. 276-277.
2004  See n. 14-16 and n. 178-179, and in particular also n. 1884.
2005  Van der Veen in prep.
2006  Note that the Gaulish stem *arto-* means bear, while the Latin word for bear is *ursus*. See n. 779.
2007  See p. 223-228.
– and yet they are a creation of the Roman period. Without the Roman conquest, there would be no dragonesque brooches as we known them.²⁰⁰⁸

It has not been possible to investigate this process of cultural dissemination further within the framework of this research. There is, however, enough reason to assume that the Roman army played an important mediating role through former soldiers who retired to the rural communities, as illustrated by the example of the Batavian veterans.²⁰⁰⁹ Thus, army mobility on various levels and in various directions had its effect on the process of cultural transformation taking shape in the Lower Rhine region in the Roman period.

The high level of diversity and mobility during the 1st century AD created a multicultural hotchpotch on the northwestern border of the Empire. People many miles from their original homes contributed foreign ingredients in varying degrees and with varying outcomes to the mixing bowl, resulting in a new cultural universe, under Rome’s rule, and initially mediated by soldiers of the Roman army.

²⁰⁰⁸ Hunter 2013, 273. See also p. 311-312.
²⁰⁰⁹ See p. 30-33.
Abbreviations and references

Abbreviations

Ancient literary sources

Caes. BGall. Caeser, Bellum Gallicum
Cass. Dio Cassius Dio, Historia Romana
Mart. Martialis, Epigrammata
Suet. Aug. Suetonius, Divus Augustus
Tac. Agr. Tacitus, Agricola
Tac. Ann. Tacitus, Annales
Tac. Germ. Tacitus, Germania
Tac. Hist. Tacitus, Historiae
Vell. Pat. Velleius Paterculus, Historia Romana

Journals, books and other publications

AE L’Année Épigraphique
Almgren Almgren 1923
Artefacts Artefacts: Encyclopédie collaborative en ligne des objects archéologiques (artefacts.mom.fr)
BGU Berliner Griechische Urkunden (Ägyptische Urkunden aus den Königlichen Museen zu Berlin)
BLC Brooches from the Low Countries, see Heeren & Van der Feijst 2017
BRGK Bericht der Römisch-Germanischen Kommission des Deutschen Archäologischen Instituts
ChLA Chartae Latinae Antiquiores, Olten 1954-
CIL Corpus Inscriptionum Latinarum, Berlin 1863-
Conspectus Ettlinger et al. 1990
Deru Deru 1996
Dragendorff Dragendorff 1895
Dressel Dressel 1899
EDCS Epigraphische Datenbank Clauss-Slaby
EDH Epigrafische Datenbank Heidelberg
Feugère Feugère 1985
Gauloise Laubenheimer 1985
Genèva Genèva 2004
Haltern Loeschcke 1909
HBW Holwerda, Belgische Waar, see Holwerda 1941
Hofheim Ritterling 1912
Hull Hull 2004
ICUR Inscriptiones christianae urbis Romae. Nova series, Rome 1922-
Loeschcke Loeschcke 1919
NoTS Hartley & Dickinson 2008-2012
OCK Oxé, Comfort & Kenrick 2000
O. Krok. Ostraca de Krokodilô, see Cuvigny 2005
OLD Oxford Latin Dictionary
OPEL Lórinez 1994-2002, 2005
RIB Roman Inscriptions of Britain, Oxford 1965-
Riha 1979; 1994


RHP Lörinicz 2001

RIU Die römischen Inschriften Ungarns, Budapest 1972-

Stuart Stuart 1977a and 1977b

Museums, archaeological and other institutes

GrN The Accelerator Mass Spectrometer facility of the University of Groningen (laboratory identifier)

LVR Landschaftsverband Rheinland

PUG Provinciaal Utrechts Genootschap van Kunsten en Wetenschappen

RGZM Römisch-Germanisches Zentralmuseum Mainz

RLMB Rheinisches Landesmuseum Bonn, now LVR-LandesMuseum Bonn

ROB Rijksdienst voor het Oudheidkundig Bodemonderzoek, now Rijksdienst voor het Cultureel Erfgoed

RMO Rijksmuseum van Oudheden, Leiden

RMX now LVR-RömerMuseum Xanten

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Samenvatting (summary in Dutch)

Dit proefschrift is het resultaat van een onderzoek dat als doel had een beter beeld te verkrijgen van de samenstelling en verdeling van de Romeinse troepen in het noordwestelijke grensgebied aan het begin van onze jaartelling. Als leidraad is primair materiële cultuur gebruikt. Chronologisch reikte het onderzoek van de heerschappij van keizer Augustus tot en met die van keizer Trajanus. In die periode bereikte de mobiliteit van het Romeinse leger een hoogtepunt. Ruimtelijk omvatte het onderzoeksterrein de militaire versterkingen in het gebied van Remagen in het zuidoosten tot Katwijk aan Zee aan de Noordzeekust.

In de inleiding (hoofdstuk I) wordt de hoofdvraag van het onderzoek als volgt geformuleerd: hoe waren de Romeinse troepen in de 1ste eeuw naChr. samengesteld en verdeeld over het Neder-Rijnse gebied? Met andere woorden: wie waren de soldaten in dat Romeinse leger? Waar kwamen ze vandaan, en wat brachten ze met zich mee? Daarbij is gelet op etnoculturele afkomst, maar ook op verschillen tussen legioensoldaten, vlootsoldaten, en hulptroepensoldaten en tussen infanterie en cavalerie. Een ander aandachtspunt was de veronderstelde cesuur van de Bataafse Opstand (69/70 naChr.); men ging er tot dusver vanuit dat mannen afkomstig uit de regio na de Bataafse Opstand niet langer in de buurt van hun thuisland waren gestationeerd, maar juist naar ver weg werden overgeplaatst om herhaling te voorkomen.

De onderzoeksmethode die hier is toegepast, heeft als uitgangspunt dat specifieke objecten inzicht kunnen verschaffen in wie de mensen waren die in de vroege Romeinse periode met het leger naar dit grensgebied kwamen. Het waren niet alleen soldaten maar bijvoorbeeld ook hun verwanten, ambachtslieden en handelaren; onder hen waren zeker ook vrouwen. Om de betekenis van die objecten op waarde te schatten is het van essentieel belang om te beseffen dat ze waren onderworpen aan een proces van culturele transformatie. Het Neder-Rijnse gebied had tot aan de komst van het Romeinse leger onder keizer Augustus nog maar minimaal contact gehad met de Mediterrane wereld, waardoor culturele invloed beperkt was. Met de komst van de soldaten en de mensen in hun kielzog, die lang niet allemaal uit dat kerngebied van het Rijk afkomstig waren en dus allerlei verschillende culturele tradities met zich meebrachten, werd er een proces van culturele transformatie in gang gezet. Deze transformatie, bekend onder de noemer ‘Romanisatie’, was dus in belangrijke mate het resultaat van de mobiliteit van mensen. De begrippen culturele transformatie (hoofdstuk II) en mobiliteit (hoofdstuk III) zijn hoekstenen van het theoretisch kader van deze studie. Samen vormen ze een van de twee pijlers waarop de studie is gebaseerd. De andere pijler bestaat uit een evaluatie van het bronnenmateriaal over de rekrutering van soldaten voor het Romeinse leger en de inzet van troepen in het Neder-Rijnse gebied in de 1ste eeuw naChr. (hoofdstuk IV).

De volgende drie hoofdstukken omvatten elk een beschrijving, analyse en discussie van een voor dit onderzoek geselecteerde categorie van materiële cultuur, te weten graffiti (hoofdstuk V), militaria (hoofdstuk VI) en fibulae (hoofdstuk VII). Hoewel ze verschillen in omvang en informatiewaarde heeft elk van deze categorieën nieuwe inzichten opgeleverd.

De graffiti, ingekraste namen op met name aardewerk en metalen objecten, bleken de meest informatieve categorie. Ze bevatten niet alleen persoonsnamen en eenvoudige militaire aanduidingen, zoals afkortingen voor turma (onderafdeling van een cavalerie-eenheid) of centuria (onderafdeling van een infanterie-eenheid), maar ook namen van eenheden. De meeste namen in de onderzochte graffiti zijn Latijns in oorsprong. Spaanse namen vormen een aparte
De tweede categorie omvat de militaria, waartoe hier ook paardentuig is gerekend. Een van de opvallendste kenmerken van de niet-Romeinse militaria is dat een ruime meerderheid van deze objecten uit de voor-Flavische periode dateert. Vooral in het begin, kort na rekrutering of kort na de oprichting van een militaire eenheid, zullen met name hulptroepen een groot deel van hun wapens en paardentuig uit eigen herkomstgebied hebben gebruikt. Deze traditionele uitrustingsstukken hebben ingeruild voor materiaal dat meer aan de hand van praktisch voorhanden materialen was. Verder overheersen de aanwijzingen voor hulptroepen en voor cavalerie. Dit laatste kan goed worden veroorzaakt doordat gewoon paardentuig meer opvalt. Niettemin duidt de aanwezigheid van hulptroepen op een waarschijnlijkheid van de aanwezigheid van hulptroepen in deze perioden. Onder hen zijn in het bijzonder mannen van het Iberisch Schiereiland, noordelijk Germanië en Gallië. Vergeleken met de aanwijzingen ontdekt aan de grafische voorbeelden is de informatie van de militaria minder uitgesproken en minder uitgebreid. Aanwijzingen voor Noord-Germanië en Scandinavië komen hierin echter voor het eerst voor.

voor verschillende soorten troepen bijeengebracht: legioensoldaten, hulptrroepensoldaten, infanterie en cavalerie. Vervolgens zijn de aanwijzingen voor invloeden vanuit verschillende gebieden binnen en buiten het Romeinse rijk verzameld. Aan de hand van deze tabellen konden vervolgens de belangrijkste kenmerken worden geïdentificeerd van het Romeinse leger dat in de 1ste eeuw na Chr. opereerde in het Neder-Rijnse gebied. Daarbij is gebleken dat de gegevens van de verschillende categorieën elkaar niet alleen kunnen aanvullen, maar ook versterken. Dit onderstrept het belang van het in samenhang analyseren van verschillende archeologische bronnen.

Uit het onderzoek is gebleken dat in de periode voor de Bataafse Opstand legioensoldaten ook buiten de legioensbases waren gestationeerd. Verder lijkt infanterie te domineren ten westen van Xanten, terwijl cavalerie sterker aanwezig was ten oosten van Xanten. Met name vanuit Gallië is de invloed nadrukkelijk waarneembaar. Daarnaast zijn ook indicatoren voor het Mediterrane kerngebied van het Romeinse rijk en voor het Iberisch Schiereiland goed vertegenwoordigd. Al voor de Bataafse Opstand waren er dus soldaten uit uiteenlopende delen van het Romeinse Rijk, en daarbuiten, in het Neder-Rijnse gebied gelegerd. Na de Bataafse Opstand zijn legioensoldaten in het geheel minder duidelijk herkenbaar. Er zijn ook minder expliciete aanwijzingen voor zowel infanterie als cavalerie. Niettemin was infanterie nog steeds dominant in het westelijk deel van het Neder-Rijnse gebied. De aanwezigheid van Gallische indicatoren is inmiddels sterk afgenomen. Daarentegen is een opkomst van invloed vanuit Brittannië zichtbaar, evenals vanuit het Balkangebied. Voor de hele 1ste eeuw geldt dat er invloeden zijn vanuit het Germaanse gebied buiten het Romeinse rijk, en vanuit de Donauregio. Wat de stationering van manschappen betreft zijn er nu meer aanwijzingen dat eenheden of detachementen samen in fortificaties waren ondergebracht. Daarbij waren eenheden ook verdeeld over verschillende locaties, en waren forten zeker niet continu volledig bemand. Bovendien lijken garnizoenen elkaar in sommige gevallen snel te hebben opgevolgd. Kort samengevat heeft dit onderzoek duidelijk gemaakt dat het Romeinse leger dat in de 1ste eeuw na Chr. in het Neder-Rijnse gebied opereerde, diverser en mobieler was dan tot dusver werd aangenomen.
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