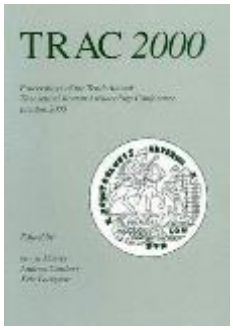

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5
Medicine, Culture and Military Identity

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5.1 Introduction

Celsus, a Roman medical writer whose work dates to the reign of Tiberius, stated that medical treatments were not the same in all areas of the empire. According to him the methods of practice were subject to the nature of localities, and he exemplifies this by stating that one method of treatment was used in Rome, another in Egypt and another in Gaul. He felt that if the causes of disease were understood by all cultures to be the same, then the same remedies should be employed by each of the different groups. Despite this, he was aware that even if different people had the same understandings of a specific cause for a medical problem, such as *ophthalmia* (an eye disease), or wounds, different treatments were still employed by these societies (*de Medicina* proem. 30–1). Another example of cultural differentiation in medical practice is provided by Soranus, a second century writer on gynaecology (*Gyn.* 2. 8. 12), who mentions the different ways Germans, Scythians and even some Hellenes treated their newborn infants in comparison to the Romans, by plunging them into cold water to test their strength and ability to survive. The variations of medical practice discussed by both writers did not, however, simply differ between cultural groups within the empire, but within Roman medicine itself.

Although we refer to medicine from the Roman era as Roman medicine, which implies a standardised system, it is actually difficult to give an exact definition to the term Roman medicine because it was not understood or practised in the same manner throughout the empire. There were different philosophical viewpoints on ways to treat the body, no universal means of training or testing doctors (Nutton 1995, pp. 44–6), and in conjunction with this, there were many folk remedies and religious ideas about treatments in existence that contradicted the philosophical writings (*e.g.*, Pliny *NH*), indicating that a doctor's care in the Roman world would differ according to the philosophy that he or she believed and the way in which the individual was taught medicine. For this paper the term Roman medicine will be used to describe medicine in the Roman era that has been discussed in Latin and Greek medical texts. In archaeological terms, Roman medicine is used to define the tools that are similar to those found in Italy. This should not, however, imply that there was a homogenous form of treatment being used in Roman Italy, it is simply a means of comparison between other populations living within the Roman empire. With these variations in mind it is questionable why, so frequently, studies made about medical care in the Roman army describe the organisation of medical care as if it were a uniform system throughout the entire empire (*e.g.*, Callies 1968; Davies 1969, 1972, 1989; Jackson 1988, pp. 133–4; Nutton 1969; Salazar 2000, pp. 74–81; Scarborough 1968; Wilmanns 1995a,b)? Although there are different views about how the system was organised

(*e.g.*, compare Davies 1989 with Wilmanns 1995a,b or Scarborough 1968 with Nutton 1969) it is most frequently referred to as a medical service, implying homogeneity. To move away from this view, the main objective of this paper is to ask whether there is evidence for different attitudes towards Roman medical practice by military units that originated in varying cultural backgrounds.

5.2 A background to understanding the perception of homogeneity in Roman military medicine

Descriptions of the Roman army as a homogenous group are based on ideas about the military that were formed by scholars in the late nineteenth and most of the twentieth centuries, and have become deeply ingrained in the way military studies are approached. One manifestation of this is the way that auxiliary groups in the army are argued to have been Romanised in order to have been controlled — for example, it is argued that they had to be homogenised (*e.g.*, Cunliffe 1988, p. 130; Drummond & Nelson 1994, p. 16; Saddington 1997, p. 496; Watson 1969, p. 15). Saddington mentions that from time to time auxiliary soldiers did revolt and argues that training in Roman discipline was a method of maintaining control over these units. However, auxiliary units were permitted (on some occasions) to continue fighting in their own manner and retain their own command systems (Saddington 1997, p. 496). In other instances, however, scholars have argued that there would have been some adoption of Roman lifestyles in the army to fulfil the needs of the state (*e.g.*, Haynes 1999). Thus, the situation was more likely to have involved soldiers adopting certain aspects of Roman military practices, but this does not necessarily imply that soldiers conformed, or rather, adopted all aspects that one would consider Roman. If auxiliary soldiers were able to retain some forms of their cultural identities in military matters, then it is probable that they could have retained other aspects of their society, including their traditional medical practices.

Before continuing though, it must be made clear that there is no intention in this paper to assume that each auxiliary unit consisted of a group of soldiers who were from the same area, as the name of their unit might imply. Although auxiliary units were originally named after the area from where the unit first came, it does not mean that all soldiers in the original unit, or those following, originated from the same region. There were obviously cultural variations within the units themselves. One demonstration of different groups can be seen on inscriptions belonging to the *cohors Tungrorum* stationed at Birrens. The inscriptions identify the unit as the *cohors Tungrorum* and then mentions the place the soldiers were from: Raetia, the Vellavian District and the Condrustrian district (*RIB* 2100, 2107 and 2108). In the context of medicine such cultural differences cannot necessarily be discerned because of poor archaeological recording and the only means to test medical variation is to compare units as a whole based upon their respective title designations.

Cultural variation in Roman military medicine is not an issue that has been raised by medical scholars, and the idea of homogeneity, as mentioned, is intrinsic to the study. Wilmanns, for example, argues that the units in the second and third centuries would have adopted Roman medical practice without question, this being based on evidence that there were more inscriptions from the frontiers mentioning *medici* from these centuries. Moreover, she believes that the Roman army would have been a ready vehicle for the spread of Roman medicine to other groups of people who had contact with the military (Wilmanns 1995b, p. 121). It is possible that ideas about

Roman medical practices could have been transferred through the army to auxiliary units, or groups of indigenous people living in the provinces. Yet, having pointed out that there were philosophical differences in medical teaching (and most likely cultural differences in practice), one would need to question the type of medical knowledge that was being transferred because it is unlikely to have been of standardised form, inciting one to introduce new questions about the soldiers' medical identity.

Medical treatment, like any aspect of a society, is culturally determined. Many anthropological studies have demonstrated that, on a basic level, the culture within which the patient is living influences that patient's experience and understanding of the disease and the healing process (Lupton 1994, p. 13). The awareness of this demands that archaeologists of Roman medicine need to consider the possibility that there might have been a range of different beliefs about health care. When units of a non-Roman background were approached with new understandings of illnesses and treatments provided for soldiers who had an understanding of Roman medicine, a reaction, either for or against its acceptance, would most likely have been raised. A more recent example of peoples' reactions to new medical practice is demonstrated in a study of medical treatment made in Grenada and Trinidad in the 1950s that showed people were more willing to approach a local curer rather than a doctor trained in western medicine, unless the curer realised that western medicine would be more beneficial to the patient's treatment (Landy 1977, pp. 472–3). From this it can be seen that western medicine was basically rejected until there was no other hope for a cure by traditionally accepted means. More specifically, medical practice is bound up in behaviour that is significant to a culture and affects beliefs about how treatments are to be executed. The people of Fatiha in rural Egypt use bodily ornaments as medicine, such as tattooing the forehead veins to relieve the pressure from frequent hauling of loads of goods. They also use ear piercing as a means of curing a fever. The ear piercing has to be done by the females of the society who use pointed earrings as their medical instruments, and the hole they make allows for the fever to escape through the hole in the ear (Morsy 1993, pp. 83–4). More directly related to Roman medicine, a philological study made by Nijhuis discusses the cultural construction of illness in an association with Greek doctors and Roman patients, and argues that there were problems that stemmed from the fact that Roman doctors would have prescribed chants whilst Greek doctors had other ideas about curing (Nijhuis 1995, pp. 57–60). These anthropological examples show that not only are there cultural variations in medical treatment, but there are also different ways of accepting and rejecting foreign medical practices when introduced to different societies.

5.3 Testing medical variation

To test whether it is possible to find evidence of cultural variations in military medical care, an examination was undertaken both of inscriptions mentioning doctors and of the remains of medical tools from auxiliary forts where the unit is known, keeping in mind that the name of the unit does not imply complete 'ethnic' homogeneity of those within it. The evidence for this question was taken from a larger study that is concerned with the comparison of evidence for medical care (artefacts of medical instruments, inscriptions and literature) on the frontiers of the Rhine, Upper and Middle Danube and Britain (Baker forthcoming). The main concern of the study is to see if there was a uniform system of medical care in the Roman army. In the main study it became apparent that there were differences in the quantity of evidence

Province	Legion	Auxiliary	Numerus
Germania Inferior	2 (1)	1 (1)	0
Germania Superior	5 (3)	6 (6)	1 (1)
Raetia	1 (1)	0	0
Noricum	1 (1)	0	0
Pannonia Superior	3 (2)	0	0
Pannonia Inferior	10 (1)	2 (2)	0
Britannia	2 (1)	2 (2)	0

Germania Inferior: *CIL* XII 8011; *CIL* XII 7943; *AE* 1975 634; Germania Superior: *CIL* XIII 6778; *CIL* XIII 6700; *CIL* XIII 11979; *CIL* XIII 7415; *CIL* XIII 11767; *CIL* XIII 6621; *AE* 246b; *CIL* XIII (252) 5208; *CIL* XIII 5623; *CIL* XI 3007; Rowland 1977, p. 175, no. 407; Raetia: *CIL* III 5959; Noricum: *V* 4367; Pannonia Superior: *ILS* 9095; *AE* 1929 215; *CIL* III 4279; Pannonia Inferior: *AE* 1937 180; *AE* 1937 181; Wilmanns 1995b, p. 217, no. 65; *Codex Iustinianus* 10, 53 (52) 1; *CIL* III 14347; *CIL* III 3413; *CIL* III 3583; Wilmanns 1995b, p. 215, no. 63; *CIL* III 14347, 5; *AE* 1923 14; *CIL* III 13386; ILS 9169; Britannia: *CIL* VII p. 48; *AE* 1969/70 291; *RIB* 1028; *CIL* VII 690.

Table 5.1: Total numbers of medical inscriptions per province. Numbers in parentheses relate to the number of fortifications that have produced medical inscriptions.

Province	Legion	Auxiliary	Numerus
Germania Inferior	111 (3)	25 (5)	0
Germania Superior	360 (2)	111 (22)	3 (2)
Raetia	5 (1)	73 (14)	0
Noricum	30 (1)	0	0
Pannonia Superior	202 (3)	0	0
Pannonia Inferior	15 (1)	15 (1)	0
Britannia	54 (3)	67 (9)	0

Table 5.2: Total number of instruments per province. The numbers in parentheses represents the number of fortifications that have produced instruments.

between the frontiers. Germania Superior, Germania Inferior and Pannonia Inferior have the greatest number of artefactual and epigraphic remains; Britannia and Raetia have some evidence; and Pannonia Superior and Noricum have produced very little archaeological evidence for medical care (Tables 5.1–5.2; Baker forthcoming).[1] Some of the discrepancies between areas is clearly due to the amount of excavation that has occurred in these provinces (*e.g.*, Noricum has had very little excavation in comparison to Germania Superior). Yet, this does not account for all of the variations: where the numbers of forts and excavations are fairly consistent, such as in Raetia, Britannia and Germania Inferior, the proportion of forts with evidence for medical care, and the numbers of instruments recovered vary. On a more specific level, some forts in different provinces have had a fairly equal level of excavation but have very different numbers of instruments and inscriptions. As the frequency of excavation does not provide an entire answer for the variations, it was asked if military events might have played a rôle in the way medical treatment was supplied to the troops. For example, Germania Superior, a province with many military engagements, had more evidence for medical care than Raetia, which saw far fewer military events. Yet, Pannonia Inferior also

[1]The artefactual evidence mentioned in Tables 5.1–5.2 is based on 69 fortifications with evidence for medical care and a total of 1,078 medical instruments.

Fort	Medical personnel	Unit type	Unit name	Province of origin
Pannonia Inferior				
Ulcisa Castra	Capsarius *CIL* III 13386	Cohors millaria Sagittariorum	Syrorum	Syria
Dunaújváros	Capsarius *ILS* 9169	Cohors millaria Sagittariorum	Hemesenorum	Syria
Germania Superior				
Niederbieber	Capsarius *CIL* XIII 11979	Numerus	Exploratum Germanicorum	Germania
Niederbieber	Medicus Ordinarius *CIL* XIII 11979	Numerus	Exploratum Germanicorum	Germania
Groß-Krotzenburg	Medicus *CIL* XIII 7415	Cohors quingenaria	Vindelicorum	Noricum
Obernburg	Medicus *CIL* XIII 6621	Cohors quingenaria	Aquitanorum Civium Romanorum	Gaul
Osterburken	Medicus *CIL* XIII 11767	Cohors quingenaria	Aquitanorum	Gaul
Germania Inferior				
Valkenburg	Medicus *AE* 1975, 634	Cohors Equitata quingenaria	Gallorum	Gaul
Britannia				
Housesteads	Medicus *CIL* VII 690	Cohors millaria	Tungrorum	Gaul (Belgica)
Binchester	Medicus Ordinarius *RIB* 1028	Ala	Hispanorum	Spain
unknown				
Unknown	Medicus *CIL* XI 3007	Ala	Indiana Gallorum	Gaul
Unknown	Medicus *CIL* XI 3007	Ala	Astorum	Spain

Table 5.3: List of medical inscriptions from auxiliary forts with named units.

saw military action, but not many fortifications seem to have evidence for medical care, so other reasons have to be deduced to account for the variations. It is possible that the differences were affected by provincial organisation, though there does not seem to be much consistency within most provinces for the arrangement of forts with evidence for medical treatment. These explanations might all have contributed to the differences for medical evidence, but it is important to ask whether cultural variations might provide a further reason.

In order to examine this question, a comparison was made of artefacts and inscriptions from auxiliary forts where the unit's name denotes its original home region. Although the sample number is not large, it does provide a place from which to start such an investigation. In the case of inscriptions (Tables 5.1 & 5.3), it is noticeable

that the representations across types of units (such as cavalry groups and the different varieties of cohorts) varies in such a way to suggest that no particular unit type was receiving more Roman-style health care than another. However, when examining the origin of the units, those from areas of Gaul have more epigraphic evidence for doctors in comparison with those from other areas. In the larger study mentioned above (from where this information is taken), an enquiry was made to see if there were provinces that had more of a tradition for using and making Roman inscriptions of any sort, not only medical. This comparison was undertaken to see if the units with epigraphic remains of a medical nature might have been from an area where there was a tradition for making such inscriptions. Overall some provinces had more inscriptions than others in both civilian and military sites, but as all provinces have them, it is difficult from this comparison alone, to determine whether the medical inscriptions found in forts resulted from the fact that the unit in question came from an area that had more enthusiastically embraced the epigraphic tradition. Overall, however, there did not seem to be a specific difference between the use of inscriptions in any unit and thus it seems that medical inscriptions might be useful for determining which groups had Roman-style medicine.

For units with artefactual evidence of medical tools (Table 5.4), those of Gallic origin (including Belgica) again have the highest representation, followed by units from Hispania. One problem with this part of the study is that many forts had more than one unit stationed at them, so it is often impossible to differentiate which unit the medical instruments belonged to, unlike the inscriptions where the unit name is given. Even when a couple of units are known to have occupied a fort that contains evidence of medical tools, it is interesting to note that the instruments appear where groups from Gaul and Spain are known to have occupied the fort for a time. However, this must be suggested with caution. As for total numbers of instruments found within forts, it is those units associated with Spain that tend to have a higher figure overall, although these numbers are quite small. The difference in instrument numbers suggests a few possibilities: perhaps the representation of finds is biased by limitations of archaeological recording and publication; perhaps it is a demonstration of how instruments tended to be viewed (and therefore retained or discarded according to the belief systems of each unit); it is also possible that these remains demonstrate which of the units adopted the use of more Roman medical tools than others. The last possibility must carry a proviso. Roman medical tools need not imply the practice of Roman-style medicine. Like any form of material culture, such tools might be adopted and transformed in accordance with local understandings. Of course a combination of these possibilities may also be relevant.

The virtual absence of epigraphic and artefactual evidence for those units from other regions, such as Britannia, Dalmatia and Dacia, suggests that not every unit coming into contact with Roman ways of life was automatically adopting the new lifestyle. The argument taken here is that medical treatments more familiar to those in Italy were made available to the different auxiliary units, but were rejected or changed by units with different ideas about health care and treatments of the body. One example of non-medical cultural rejection is described by Hingley who argues for the continued use of roundhouses in Roman Britain by certain populations after Roman-style houses had been introduced (Hingley 1999, pp. 146–7). There is also evidence of auxiliary soldiers buried at Kempten in Bavaria, who combined both German and military identities with their grave goods (Wells 1999, pp. 135–6). These examples are demonstrations of Dietler's statement that cultural interaction is not a simple process of diffusion between an active donor and a passive recipient (Dietler

Fort	Unit Type	Unit Name	Country	Inst.
Germania Inferior				
Vechten	Cohors millaria equitata	Brittonum	Britain	17
	Ala	Thracum	Thrace	
	Cohors quingenaria equitata	Hispanorum	Spain	
Valkenburg	Cohors quingenaria equitata	Gallorum	Gaul	4
	Cohors quingenaria equitata	Thracum	Thrace	
Germania Superior				
Heftrich	Numerus	Catherensium	Noricum	2
Zugmantel	Cohors quingenaria	Treverorum	Gallia Belgica	19
Holzhausen	Cohors quingenaria	Treverorum	Gallia Belgica	2
Saalburg	Cohors quingenaria	Raetorum	Raetia	9
Groß-Krotzenburg	Cohors quingenaria	Vindelicorum	Noricum	1
Wiesbaden	Cohors quingenaria	Dalmatiarum	Dalmatia	4
	Cohors quingenaria	Pannoniorum	Pannonia	
	Cohors quingenaria	Thracum	Thrace	
	Cohors quingenaria	Delmatarum	Dalmatia	
	Cohors quingenaria	Raetorum	Raetia	
Neckarburken	Cohors quingenaria equitata	Aquitanorum	Gaul	1
Bad Wimpfen	Cohors quingenaria	Aquitanorum	Gaul	2
	Cohors quingenaria	Hispanorum	Spain	
	Cohors quingenaria equitata	Germanorum	Germany	
Stockstadt	Cohors quingenaria	Hispanorum	Spain	1
	Cohors quingenaria	Gallorum	Gaul	
	Cohors quingenaria	Gallorum	Gaul	
Langenhain	Cohors quingenaria equitata	Aquitanorum	Gaul	1
Öhringen	Cohors quingenaria	Helvetiorum	Helvatia	1
	Cohors quingenaria	Belgarum	Gallia Belgica	
Mainhardt	Cohors quingenaria equitata	Asturum	Spain	1
Raetia				
Straubing	Cohors quingenaria	Raetorum	Raetia	21
Weißenburg	Ala	Hispanorum	Spain	6
Gnotzheim	Cohors quingenaria	Bracaraugusto-rum	NW Spain	1
	Cohors quingenaria equitata	Thracum	Thrace	
Dambach	Cohors quingenaria equitata	Aquitanorum	Gaul	1
Pannonia Inferior				
Dunaújváros	Ala	Tungrorum	Gallia Belgica	15
	Cohors milliaria sagatorum	Hemesenorum	Syria	

Table 5.4: List of Auxiliary Forts with named units from which medical tools have been recovered.

Table 5.4 continued from previous page ...

Fort	Unit Type	Unit Name	Country	Inst.
Britannia				
South Shields	Cohors quingenaria equitata	Gallorum	Gaul	10
Wallsend	Cohors quingenaria	Nerviorum	Gallia Belgica	3
	Cohors quingenaria equitata	Civium Romanorum Lingonorum	Gaul	
Halton Chesters	Ala	Pannoniorum	Pannonia	2
Chesters	Ala	Asturum	Spain	13
Housesteads	Cohors milliaria	Tungrorum	Gallia Belgica	6
	Numerus	Frisiavonum	Frisia	
	Numerus	Hnaudfridi	Germany	
Birdoswald	Cohors milliaria	Tungrorum	Gallia Belgica	5
	Cohors quingenaria	Dacorum	Dacia	
Corbridge	Cohors milliaria equitata	Vardullorum	Spain	23
Carlisle	Cohors quingenaria	Gallorum	Gaul	3

1995, p. 90). He describes how, in studies of Greek contact with groups in what is now France and Bavaria, Hellenocentric readings of interaction between the different societies have been created because modern European cultures tend to place the Classical world at the zenith of civilisation. Romanocentric readings of the past are also created on account of this belief, predicated upon the assumption that any culture coming into contact with Rome would have wished, after seeing the Roman way of life, to adopt a similar lifestyle because of its supposed superiority. Such may also have pervaded attitudes to Roman medicine, it being assumed that those who did not have Classical medical care would have wanted it, because modern scholars have regarded such practices as superior to the less understood and studied provincial medicine. This underlying assumption is demonstrated in arguments about Romanisation, as is the case with Wilmanns, who states without support that Roman-style medicine would have been openly adopted in the army by the second century (Wilmanns 1995b, p. 121). On the other hand, Künzl does discuss evidence for native and Roman interaction in the field of pharmacology at least by showing that Romans adopted some 'Celtic' medicines from plants, these plants being described by their indigenous names not a Greek or Latin one (Künzl 1991, p. 189).

Although Künzl may suggest such possibilities for interaction, the army is still seen by him as a homogeneous group, employing similar medical practices. Moreover, the underlying supposition as to the superiority of Roman medicine is reinforced by a lack of study into provincial medical practices, although, once again Künzl makes some progress in this regard, albeit if this is almost always viewed in the context of Greek influence on 'Celtic' and Germanic medicine before any later Roman influence (Künzl 1991, p. 185). It is possible, as demonstrated by the lack of Roman style medical instruments and inscriptions from some military contexts, that certain auxiliary units may have rejected Roman medical practice; or if tools were found, adapted them to their own understanding of how to use them.

5.4 What is meant by the term 'instrument'?

The instruments discussed in this study are similar to those found in Italy, especially at Pompeii (Bliquez 1994b). They may be representative of the medical treatments used by Roman doctors in Italy, and can be employed as a means of determining the spread of some aspects of Roman medicine, with the stipulation that the tools might have been borrowed, but used in a different manner. It must also be mentioned that the instruments are most likely not the only tools to have been applied in medical practice. The ones that we are aware of are the ones that scholars have identified by comparisons with the medical writings of Celsus, Galen, Paul of Aegina and Soranus (*e.g.*, Bliquez 1984, 1994a,b; Braadbaart 1994; Jackson 1990, 1992, 1994, 1995; Künzl 1983; Milne 1907). Not all of the instruments mentioned in the ancient sources have been identified or found in the archaeological record. The identified medical instruments have been divided into three groups by modern scholars (*e.g.*, Riha 1986) in an attempt to define the instruments by function. They are categorised as surgical, surgical/toilet and toilet instruments. Since these are modern interpretations, an indication of how the Romans and others would have perceived them cannot be established quite so definitively, and they might not have placed them in such specific groups. Deetz has argued that 'formal artefact typologies are arrived at, by necessity, independently of what the makers of the objects perceived as different types, ... such classifications are not only sterile exercises but potentially misleading' (Deetz 1977, p. 13). Moreover, Miller maintains that archaeologists try to make the artefacts fit very concrete forms, when it is likely that they have a multiplicity of meanings (Miller 1994, p. 406). One example of how a misinterpretation can come about is apparent in the identification of some scalpels found in a structure identified as a *fabrica* on the Bonner Berg near Bonn (van Driel-Murray & Gechter 1984, p. 62). This structure has much evidence of leather working, and it is quite possible that the scalpels found within had been used to work the material. Thus the modern identification of these as surgical tools need not exhaust the range of functions that they may have performed. There is also the likelihood that such artefacts could have changed their meaning and function throughout their life-span.

Another problem with the categories is that the instruments are taken out of their archaeological context and published in separate classes, rarely mentioning other objects found with them, artefacts that may shed greater light on our understanding of medical practice. The omission of such information leaves one with less of an understanding of original material associations found with recognised medical tools. The associated materials might have been used with, or as medical tools, and might have been considered a necessary part of the rituals of medical treatment. The term ritual is used here in accordance with Victor Turner's interpretation, which is described as a process of mediation between different states of being (Turner 1974). For medicine, a ritual is simply an act of healing between the states of health and illness, and any act, either what we would consider rational medical treatment, or religious or magical treatment, is a ritual. It is only the so-called rational medicine that tends to be the focus of archaeological studies of Roman medicine, and when it comes to the identification of tools this only tells us some of what people believed and practised. If we look at Pliny's *Natural History*, for example, other means of medical knowledge are demonstrated that we would consider irrational. In support of irrational aspects in Roman medicine, archaeological evidence of sanctuaries, amulets and altars to medical gods indicate that it was either used in conjunction with rational aspects, or that rational medicine was not always trusted or even practised. Thus, certain objects

found in association with the recognised medical tools might have served a function in the ritual of medical practice that has yet to be understood.

Objects found in burials with medical tools might begin to shed some light on the full range of medical beliefs. A tomb from Stanway, Essex (Jackson 1997, p. 1471), has identifiable surgical instruments along with pottery, a gaming board with gaming pieces and iron and copper-alloy rods, which might have been used for divining. The instruments were found on the game board, in close proximity to the rods; perhaps these two objects might have had an important 'ritual' aspect to the medical treatment offered by the doctor. Künzl's study of medical instruments found in tombs mentions other finds buried with medical tools, but he does not consider their possible functions in the ritual of medical practice (Künzl 1983). Some of these finds are rather unusual, such as three Neolithic stone axes (Künzl 1983, p. 57), a cuttlefish bone (Künzl 1983, p. 59) and an iron bell (Künzl 1983, p. 79). It can be speculated that in certain areas, these items might have been used as charms or as tools that were integral to medical treatment. Thus, whilst the medical texts give one perspective on medical treatment, the material culture can be used to establish culturally determined behaviour and to ask what other practices people may have been expressing through their deposition of objects.

5.5 Deposition of the finds

It is argued here that the deposition of instruments can be used as a means of determining culturally-specific attitudes between units in the Roman army towards medicine. Deposition can include casual dumping and 'more directed, intentionally structured incorporations that are consciously bound up in specific symbolic values' (Whittle *et al.* 1999, p. 355). Rubbish is not a universal category as indicated by Moore's study of the Marawket, an east African tribe (Moore 1982). Here, it is demonstrated how items are discarded according to their gender association, so that the deposition is a reproduction of the symbolic categories that constitute this particular culture. Moore's study shows that every culture perceives refuse in a different manner, and that objects can carry complex symbolic associations that condition how they are discarded.

Studies of deposition in relation to the Roman army rarely consider complex questions about how (and more importantly) why, objects are deposited in specific places. In general deposition tends to be understood in terms of recycling, refuse disposal and deliberate clearance (Bishop & Coulston 1993, p. 34). According to Bishop and Coulston there are not as many metal finds as one might expect from Roman military sites because metal objects were frequently being recycled. Their argument is convincing in some degree, but not all metal objects were recycled, and some objects are found in some very strange deposits indeed. It has been argued that a box of equipment from Corbridge, buried in the floor of the building identified as the *fabrica*, or store building (Bishop & Dore 1988, p. 128) was buried for recycling (Bishop & Coulston 1993, p. 35). However, it is questionable why something meant for recycling was carefully packed in a chest with the armour wrapped in cloth and placed under a floor. Whilst Bishop and Coulston suggest that the hoard was awaiting repair (1993, p. 37), one must question why it was left there for centuries. Other possible reasons for this deposition are equally plausible, including the suggestion that this may have been some form of votive deposit.

Another argument is that objects were buried on account of a deliberate clearance. Again, this line of reasoning is often taken as 'fact' without discussion of other suggestions. In the case of the unusual deposits within the Newstead pits, argued by Bishop and Coulston to be related to clearance (1993, p. 34), it is possible to see this material as being deliberately and ritually deposited (Clarke & Jones 1994; Ross 1968, pp. 268 70). In some instances human skeletons were buried in the pits, suggesting that the action of burial was more than simple clearance, perhaps comprising votive boundary offerings. Other possible examples of ritual deposition can be seen in the burial of cavalry helmets in the environs of the legionary fortress of Nijmegen (van Enckevort & Willems 1994, pp. 127–34). Although they were not all in perfect condition, such objects would probably have been purposefully deposited because of their symbolic, rather than economic, value (Clarke & Jones 1994, p. 119).

The cultural or 'identity' value of an object will often determine the way it is deposited. Birds-headed winged pendants, for example, seem to have been found only where Thracian cavalry units occupied sites, and these objects might have been a symbol of the unit (Bishop & Coulston 1993, p. 197). Since they were not recycled, one might suggest that the Thracian units had a specific cultural understanding about how the objects were to be discarded. Another example can be seen at the site of Velsen, where along a ridge near the site, a mixed set of objects was found that strongly suggests ritual activity (Bosman 1995, p. 89). Bosman notes that there were 59 military items found along with bone and indigenous pottery. The majority of the bone is horse, and 90% of the pottery is indigenous. Deposits like this seem to have been a Frisian, rather than Roman, practice, and Bosman questions whether the Romans recognised the ritual importance of the site and used it along with the local Frisians, or perhaps whether it belonged to Frisian soldiers (Bosman 1995, p. 94). From these examples it may be suggested that one can demonstrate the possibility of cultural variations in deposition with Roman military sites.

The body is a prime source of symbolism, and it is not surprising that the placement of objects closely associated with the body (*e.g.*, medical instruments) should embody complex rules. Van Driel-Murray, for example, has demonstrated how shoes were ritually deposited in wells and house foundations (van Driel-Murray 1999, pp. 135–7). It is conceivable that other items associated with the body, such as medical instruments, could carry a ritual significance as well. An object that had been used in medical practice might have had its significance increased because of its association with a specific person or the sick body. It is interesting to note the occurrence of two Roman instruments at Stonehenge (Cleal *et al.* 1995, p. 433, nos. 32, 35), along with a large group of coins and pins and brooches (Cleal *et al.* 1995, p. 431). Medical tools might also have been considered to be polluted if they had been used in an unsuccessful operation, or had belonged to either a dead or rather unsuccessful doctor, and may have been deposited in specific areas because they were considered somehow harmful, or taboo, with their disposal being conditioned by the need to keep them from 'infecting' people or places.

5.6 The Sites

A comparison was made of three legionary fortresses, where the medical instruments' find spots were adequately recorded, to see if there might be any differences between the units' depositional practices. Originally the intention was to examine the named auxiliary units, as undertaken earlier with this investigation, but unfortunately this

proved impossible because the recording of the instruments from many auxiliary forts has been done without regard to their context. There are four legionary fortresses with fairly good records of the location of medical instruments: Chester, Caerleon, Vindonissa and Neuss, but as the first of these has only 13 medical tools, it has been disregarded for the purpose of this study.

The site of Caerleon, located in south-east Wales, has yielded 38 instruments; although only 21 have a provenance recorded. When looking at their distribution (Fig. 5.1), it becomes immediately apparent that the instruments seem to appear in clusters, albeit in small numbers. The areas they are concentrated in are mainly in the tower/rampart area (1), the amphitheatre (2), the barracks (buildings 3 & 4), the baths (5) and in building 6. The rampart area had five probes of varying sorts; two of these instruments were broken, and one bent, but the other two were in good condition. Five instruments were found in the amphitheatre: three were broken and two in good condition. The barracks of the first cohort had a spatula probe in good condition buried in a posthole (3). The barracks in Prysg field (4) had one probe with lettering inscribed on it and three ear probes in good condition. A surgical needle and a probe were found in the so-called workshop (6). The baths and the vicus drains also have a higher number of instruments, and with the baths it seems that this might be one place where surgery was performed because children's teeth showing signs of surgical extraction were found in bath drains (Zienkiewicz 1986, p. 223). One broken spoon probe was found in the headquarters building (7). One scalpel was found outside the fortress in a rubbish pit (8). From the patterning it is clear that there is some form of clustering of instruments, which might indicate specific places where they were made, used, or permitted to be deposited. Most interesting are the ones found in the rampart area of the fortress and in the post-hole in the barracks. In the case of the scalpel found in the rubbish pit, since it was in good condition, one might speculate that it had been deliberately deposited perhaps because of pollution taboos or because it was a votive offering associated with the body. It might also be asked if the pits were for rubbish, or whether they really served another purpose?

The fortress of Neuss in Germania Inferior, has three areas where the instruments seem to be clustered (Fig. 5.2). One of these is described as the hospital (1), and it has ten probes and four scalpels. The other areas are: in a group of barracks (2), where seven instruments were found, and in the headquarters building (3) where seven instruments were found, mainly ear probes, and all in good condition. Two instruments were possibly found on the corner tower (4), but they might have come from building five. The baths had a few instruments (6) and one or two were dotted around other areas of the fortress. Four instruments were found in the south section of the fortress, but the exact location of the instruments is not known (Lehner 1904; Watermann 1970). As with Caerleon it is noticeable that the instruments appear in clusters, but in Neuss they appear in different areas of the fortress. There is the possibility of instruments being deposited in the ramparts, but this is not completely certain.

Vindonissa, a legionary fortress in Germania Superior, has the greatest number of instruments (325), but only 142 have their provenience recorded (Fig. 5.3). Again they appear in clusters. Sixty instruments were found in an area called the *Schutthügel*, a rubbish deposit[2] located outside the fortress (1). This deposit has a number of instruments in good condition, which suggests that the instruments might have been placed in this region because they were considered unclean through their association

[2]I would like to thank Dr. C. van Driel-Murray for bringing to my attention the fact that the Schutthügel is thought to be a rubbish deposit.

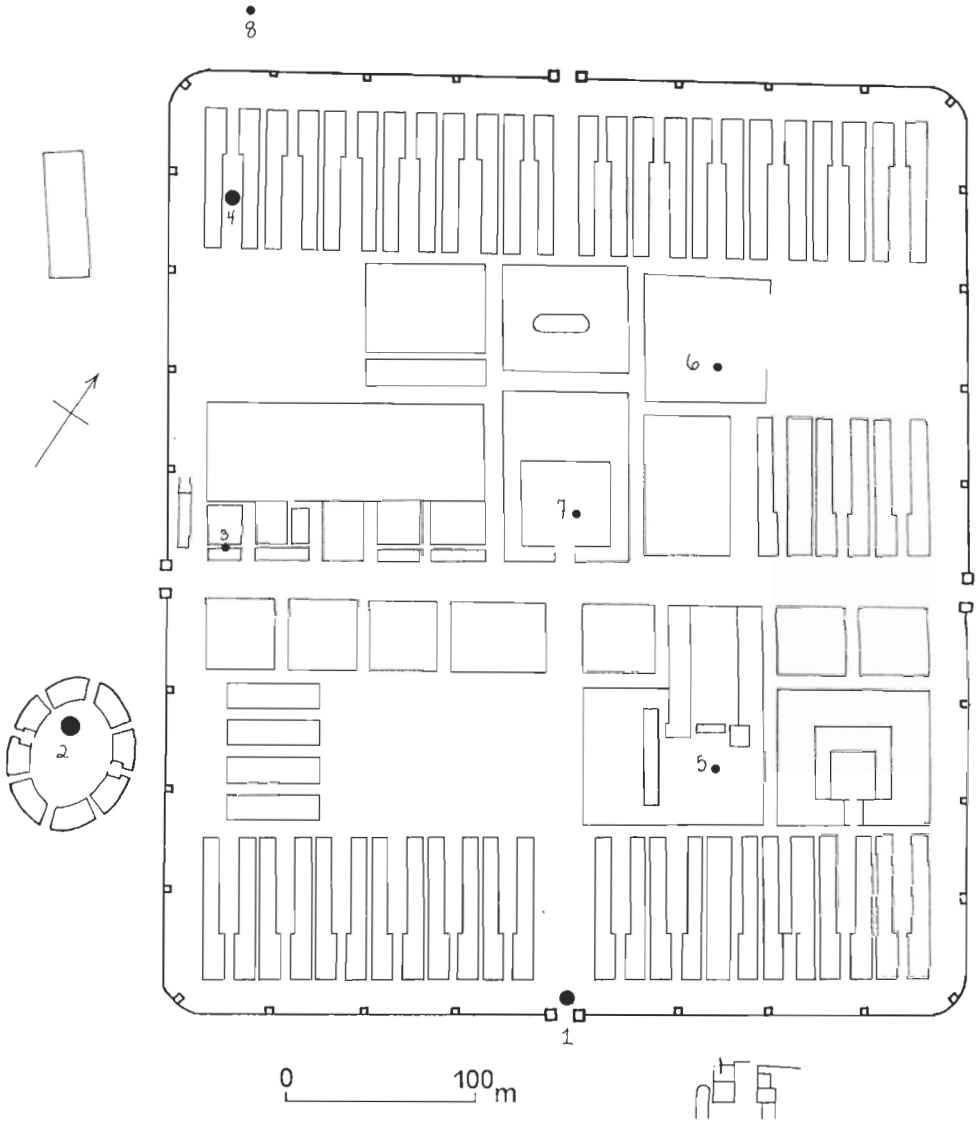

Figure 5.1: Distribution of medical tools from Caerleon. Plan after Boon & Williams (1967). Numbers on plan relating to numbers of medical instruments: 1 5; 2 5; 3 1; 4 4; 5 2; 6 2; 7 1; 8 1.

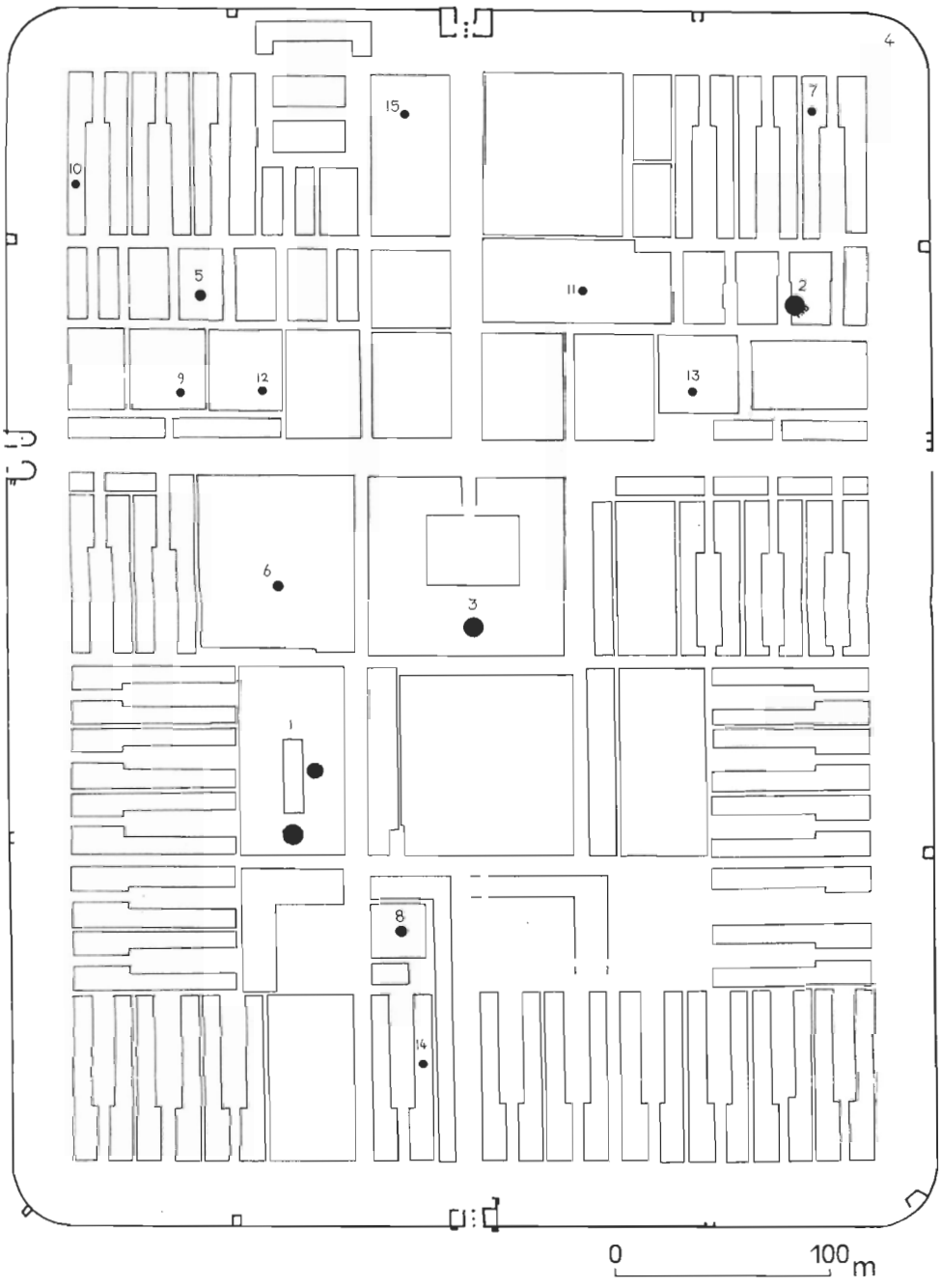

Figure 5.2: Distribution of medical tools from Neuss. Plan after Johnson (1983). Numbers on plan relating to numbers of medical instruments: 1 15; 2 6; 3 7; 5 2; 6 2; 7 1; 8 2; 9 1; 10 1; 11 1; 12 1; 13 1; 14 1; 15 1.

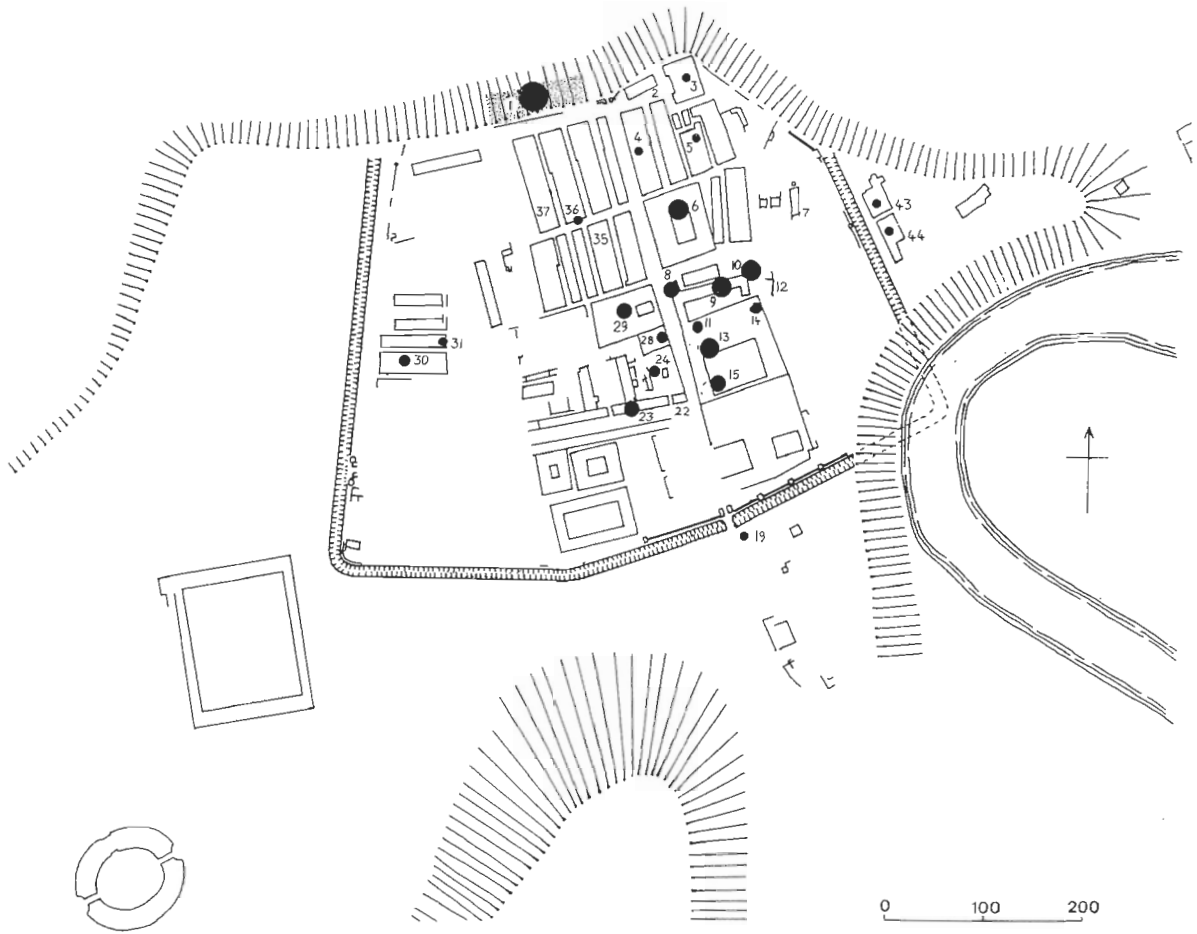

Figure 5.3: Distribution of medical tools from Vindonissa. Plan after Unz & Deschler-Erb (1997). Numbers on plan relating to numbers of medical instruments: 1 60; 3 1; 4 1; 5 1; 6 13; 8 3; 9 7; 10 13; 11 2; 13 10; 14 2; 15 5; 19 1; 23 4; 24 4; 28 2; 29 6; 30 3; 31 1; 35 1; 43 1; 44 1.

with disease. The barracks (4, 5, 30, 31, 36) do not have many instruments with seven in total, but the area in the *principia* (8–15) has a high number, along with the baths area across from the headquarters building (23–24). The so-called hospital has a few instruments as well (6). Again it is noticeable that they appear in groups.

In order to 'test' the validity of these distributions, the location of surgical instruments from Vindonissa was compared to that of another common artefact type — horse-trappings (Fig. 5.4). Ninety-one of these were found in the *Schutthügel* (1), thirteen in the so-called hospital (6), thirteen in area (5), 34 from the area of the principia (8–15), eighteen from barracks (4, 30, 31, 32, 36, 37), eighteen from the amphitheatre (49), whilst there were more found in other areas around the fortress. This seems to suggest that different types of objects were found in different areas of the fortress, perhaps because each had specific places of deposition. Thus, there does seem to have been a difference in the places metal objects were discarded within the fortress of Vindonissa, suggesting disposal practices varied according to item.

Overall it is noticeable that each fortress has different areas where the instruments were deposited and different numbers of instruments. The majority do not seem to appear in a random pattern, but in clusters. Some instruments seem to have been deposited as part of ritual practices, especially those in the rampart areas of the fortresses and the one found in the post-hole at Caerleon. Those that were most likely deposited as rubbish were sometimes found in good condition, begging the question as to whether they were thought to have been polluted, or if they belonged to a dead soldier or doctor and were thus considered 'unlucky'. Furthermore, it is suggested that the different patterns of deposition within each fort may be the manifestation of different cultural attitudes. Thus with these differences in mind, one can think back to the anthropological examples of medical practice to understand the culturally-specific nature of medicine. Even if firm conclusions may not be possible, this exercise has hopefully made us think more about attitudes towards small finds and cultural variations in a military context.

5.7 Conclusion: Why would there be differences in deposits?

This study asks us to question the overall assumption of homogeneity that underlies all studies of military medicine. Although I cannot say much about the specific details of differences in medical care and traditions in the Roman army, it can be observed that there are variations in the use of Roman medical inscriptions, Roman instruments and depositional practices amongst different units, and there may be a link to different cultural perceptions of the body and of medicine in general. With a closer look at the deposition of instruments, and with a better awareness of how various societies have defined medical tools and their use, one could make more informed comparisons of the sites and units to see if there are differences in military medical care. However, from our current understanding of the information available and our reliance upon earlier archaeological reports, the suggestions that one can make must be thought of as limited, but it is to be hoped that future investigations will consider these problems with greater care.

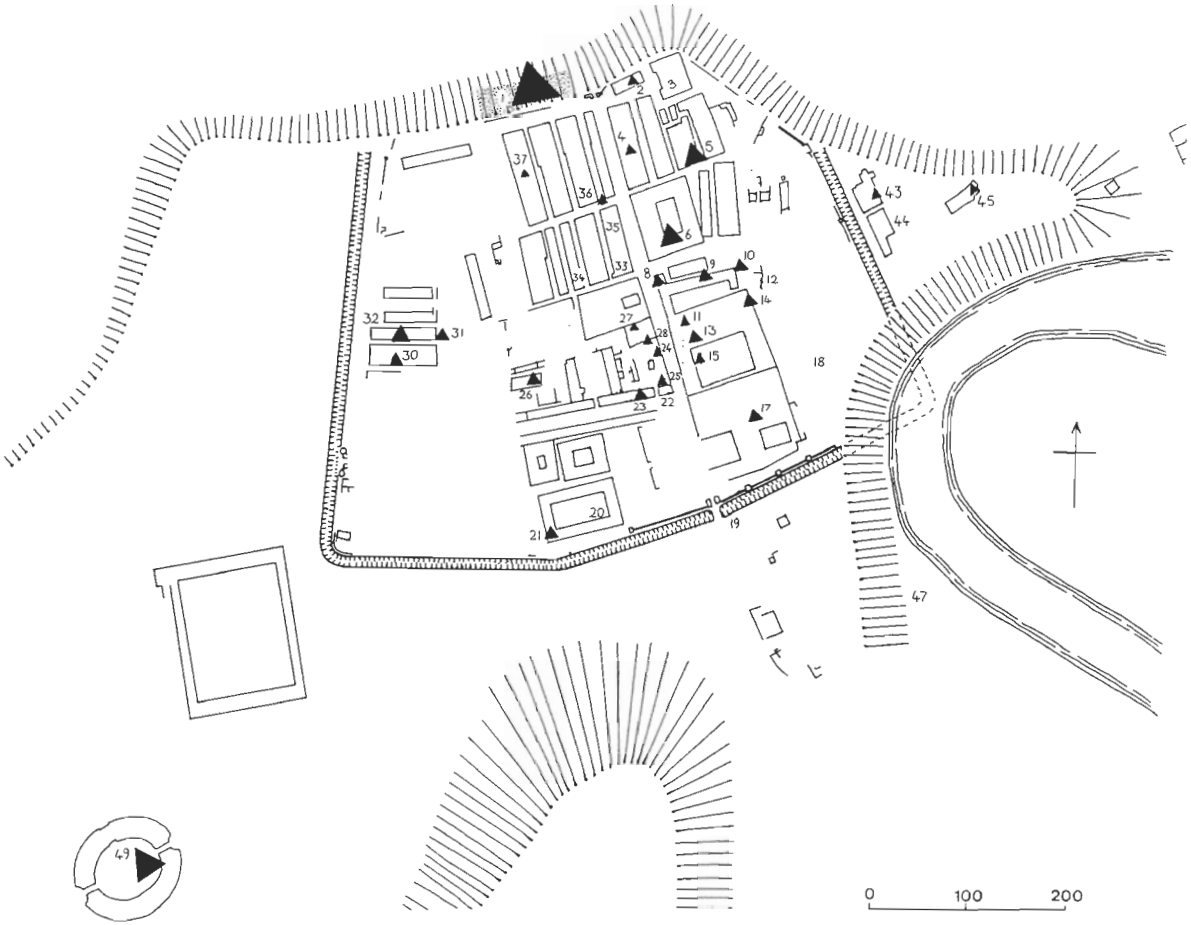

Figure 5.4: Distribution of horse-trappings at Vindonissa. Plan after Unz & Deschler-Erb (1997). Numbers on plan relating to numbers of horse trappings: 1 91; 2 2; 4 2; 5 13; 6 13; 8 6; 9 5; 10 6; 11 3; 13 7; 14 4; 15 3; 17 4; 21 5; 23 2; 24 3; 25 2; 26 7; 27 1; 28 3; 30 4; 31 6; 32 9; 35 2; 37 1; 43 3; 45 2; 49 18.

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Abbreviations and original sources

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RIB Collingwood, R. G. and Wright, R. P. 1995. *The Roman Inscriptions of Britain,* second edition. Alan Sutton, Stroud.

CIL *Corpus Inscriptorum Latinorum Consilio et Ductoritate Academie Litterarum Regiae Borussical.* 1862–. Berlin: Academie der Wissenschaften.

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