Frater, soror, contubernalis: **Greedy Institutions and identity relationships in the auxiliary military communities of the northern frontier of Roman Britain in the first and second centuries A.D.**

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CONTENTS

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FIGURES

TABLES

ABBREVIATIONS

Abb: Bell, H.I. 1962. *The Abinnaeus archive: papers of a Roman officer in the reign of Constantius II.* Oxford: Clarendon Press.
AE: *L'Année épigraphique.* Paris 1893-

BGU: *Berliner griechische Urkunden (Ägyptische Urkunden aus den königlichen Museen zu Berlin).* Berlin 1895-

CJ: P.Krueger (ed). *Codex Iustianus: Corpus Iuris Civilis* vol. II. Berlin 1863-

Chic. : Chicorius, C. 1896. *Die Reliefs der Traianssäule*. Berlin: G. Reimer.

CIL : Mommsen, T. *et al* (eds) 1863-. *Corpus Inscriptionum Latinarum*, Berlin : Walter de Gruyter & Co.

D: Mommsen, T. (ed) 1872. *Digesta; Corpus Iuris Civilis* Vol I. Berlin.

ILS : Dessau, H. 1892-1916 *Inscriptiones Latinae Selectae*. Berlin, 3 vols.

P. Dur : Welles, C.B., Fink, R.O., and Gillam, J.F. 1959. *The Excavations at Dura-Europos, Conducted by Yale University and the French Academy of Inscriptions and Letters. Final Report V, Part I: The Parchments and Papyri.* New Haven: Yale University Press.

RIB: Collingwood, R.G., Wright, R.P., 1965-2009. *Roman Inscriptions of Britain.* Stroud: Alan Sutton, Oxford: Oxbow.

***RIB* II**: (2412-2420): Collingwood, R.G., Wright, R.P., Frere, S., Tomlin, R. (eds) 1991. *The Roman Inscriptions of Britain II: Instrumentum Domesticum. Fascicule 2: Weights, Gold Vessel, Silver Vessels, Bronze Vessels, Lead Vessels, Pewter Vessels, Shale Vessels, Glass Vessels, Spoons.* Stroud: Alan Sutton Publishing.

(2421-2441): Collingwood, R.G., Wright, R.P., Frere, S., Tomlin, R. (eds) 1991. *Roman Inscriptions of Britain II: Instrumentum Domesticum. Fascicule 3: Brooches, Rings, Gems, Bracelets, Helmets, Shields, Weapons, Iron Tools, Baldric Fittings, Votives in Gold, Silver and Bronze, Lead Pipes, Roundels, Sheets and Other Lead Objects, Stone Roundels, Pottery and Bone Roundels, Other Objects of Bone.* Stroud: Alan Sutton Publishing.

(2442-2480): Collingwood, R.G., Wright, R.P., Frere, S., Tomlin, R. (eds) 1992. *Roman Inscriptions of Britain II: Instrumentum Domesticum. Fascicule 4: Wooden Barrels, Stilus-tablets, Miscellaneous Objects of Wood, Leather Objects, Oculists' Stamps, Wallplaster, Mosaics, Handmills, Stone Tablets, Stone Balls, Stone Pebbles, Small Stone Votives, Miscellaneous Objects of Stone, Jet Figurine, Clay Figurines, Miscellaneous Clay Objects, Antefixes, Tile-stamps of Legion II Augusta, of Legion VI Victrix, of Legion IX Hispana, of Legion XX Valeria Victrix, Tile-stamps of the Auxiliaries.* Stroud: Alan Sutton Publishing.

(2492-2500): Collingwood, R.G., Wright, R.P., Frere, S., Tomlin, R. (eds) 1994. *Roman Inscriptions of Britain II: Instrumentum Domesticum. Fascicule 4: Dipinti and Graffiti on Amphorae, Dipinti and Graffiti on Mortaria, Inscriptions in white barbotine, Dipinti on Coarse Pottery, Samian barbotine or moulded inscriptions.* Stroud: Alan Sutton Publishing.

(2502-2505): Collingwood, R.G., Wright, R.P., Frere, S., Tomlin, R. (eds) 1995. *Roman Inscriptions of Britain II: Instrumentum Domesticum. Fascicule 8: Graffiti on coarse pottery before and after firing, stamp on coarse pottery, addenda and corrigenda to fascicules 1-8.* Stroud: Sutton Publishing Ltd.

RIB III: Tomlin, R.S.O., Wright, R.P., and Hassall, M.W.C. (eds) 2009. *The Roman Inscriptions of Britain III: Inscriptions on Stone found or notified between 1 January 1955 and 31 December 2006.* Oxford, Oakville: Oxbow Books.

RMD: Roxan, M.M. 1978-1994. *Roman military diplomas, Vol. I-III*. London: Institute of Archaeology. Roxan, M.M. and Holder, P. 2003. *Roman Military Diplomas Vol. 4.* Bulletin of the Institute of Classica Studies, Supplement 82. London: Institute of Classical Studies, School of Advanced Studies, University of London. Holder, P. 2006. *Roman Military Diplomas Vol.5.* Bulletin of the Institute of Classica Studies, Supplement 88. London: Institute of Classical Studies, School of Advanced Studies, University of London.

RMR: Fink, R.O. 1971. *Roman Military Records on Papyrus.* Cleveland: Case Western Reserve University for the American Philological Association.

SHA: *Scriptores Historia Augusta* (Trans. D. Magie, 1921. Cambridge, London: Harvard University Press.).

Tab. Lugoval: Tomlin, R.S.O. 1998. 'Roman Manuscripts from Carlisle: The Ink-Written Tablets.' *Britannia* 29:31-84.

Tab. Vindon: Speidel, M.A. 1996. *Die römischen Schreibtafeln von Vindonissa: Lateinische Texte des Militärischen Alltags und ihre geschichtliche Bedeutung.* Brugg: Gesellschaft pro Vindonissa.

Tab. Vindol. II: Bowman, A., and Thomas, J.D. 1994. *The Vindolanda Writing Tablets* (*Tabulae Vindolandenses II*). London: British Museum Press.

Tab. Vindol. III: Bowman, A., and Thomas, J.D. 2003. *The Vindolanda Writing Tablets* (*Tabulae Vindolandenses*) *– Volume 3*. London: British Museum Press.

Tab. Vindol. IV: Bowman, A.K., Thomas, J.D., and Tomlin, R.S.O. 2010. 'The Vindolanda Writing-Tablets (*Tabulae Vinolandenses* IV, Part 1).' *Britannia* 41: 187-224, *and* Bowman, A.K., Thomas, J.D., and Tomlin, R.S.O. 2011. 'The Vindolanda Writing-Tablets (*Tabulae Vinolandenses* IV, Part 2).' *Britannia* 42: 113-144.

Cross-references

At points in the thesis references are made to preceding or successive sections. These are indicated in bold, e.g. **1.1.1.** to 'Defining key terms'.

Note on Appendices

Within the text reference is made on occasion to Vindolanda tablets quoted within Appendix **II**. These are indicated within the text by the formula **II.*x***. Other references are made to small finds with the formula **III.*x.y***.

ABSTRACT

This thesis is a reassessment of the concept of the 'fort community' and analysis of the people who dwelled within it, utilising archaeological evidence from the northern frontier of Roman Britain. Traditional approaches which have focused on military functions or on military-civilian dichotomies cannot provide a full account of discrepant identities (Mattingly 2011). A holistic approach which acknowledges and incorporates non-military activities can provide an important alternative perspective into how the inhabitants of Roman fort communities related to one another. The thesis utilises Lewis Coser's concept of the 'greedy institution' (1974) to resituate the imbalance of power affecting identity within the Roman military.

The discussion is framed within nested layers of identity and community. In the first chapter, a historical overview of Roman military scholarship is presented that contextualises the current archaeological climate and illustrates key issues of bias. Three core forms of identity are analysed in the second chapter in the context of the Roman *auxilia*; socio-cultural, gender, and ethnicity. This discussion positions the auxiliaries as a group both empowered and subjugated, consisting of 'martial races' exploited within a military role. In the third chapter, the textual evidence for identity on the northern frontier is analysed, using epigraphy and the Vindolanda tablets. Within these the discrepant identities of members of the fort communities are identified. In the fourth chapter, I analyse the architectural underpinnings of military identity through an examination of the development and ideology of the 'standard plan' fort. In the fifth chapter, I analyse the material evidence for the *habitus* of fort community life, focusing on three activity contexts; military display, craft and industry, and bodily consumption. The thesis concludes by assessing the strengths of the 'greedy institution' approach and outlining its significance with regards to future research.

DECLARATION

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DEDICATION

This thesis is dedicated to my wife Julia, without whose support over the years this thesis would not have been possible.
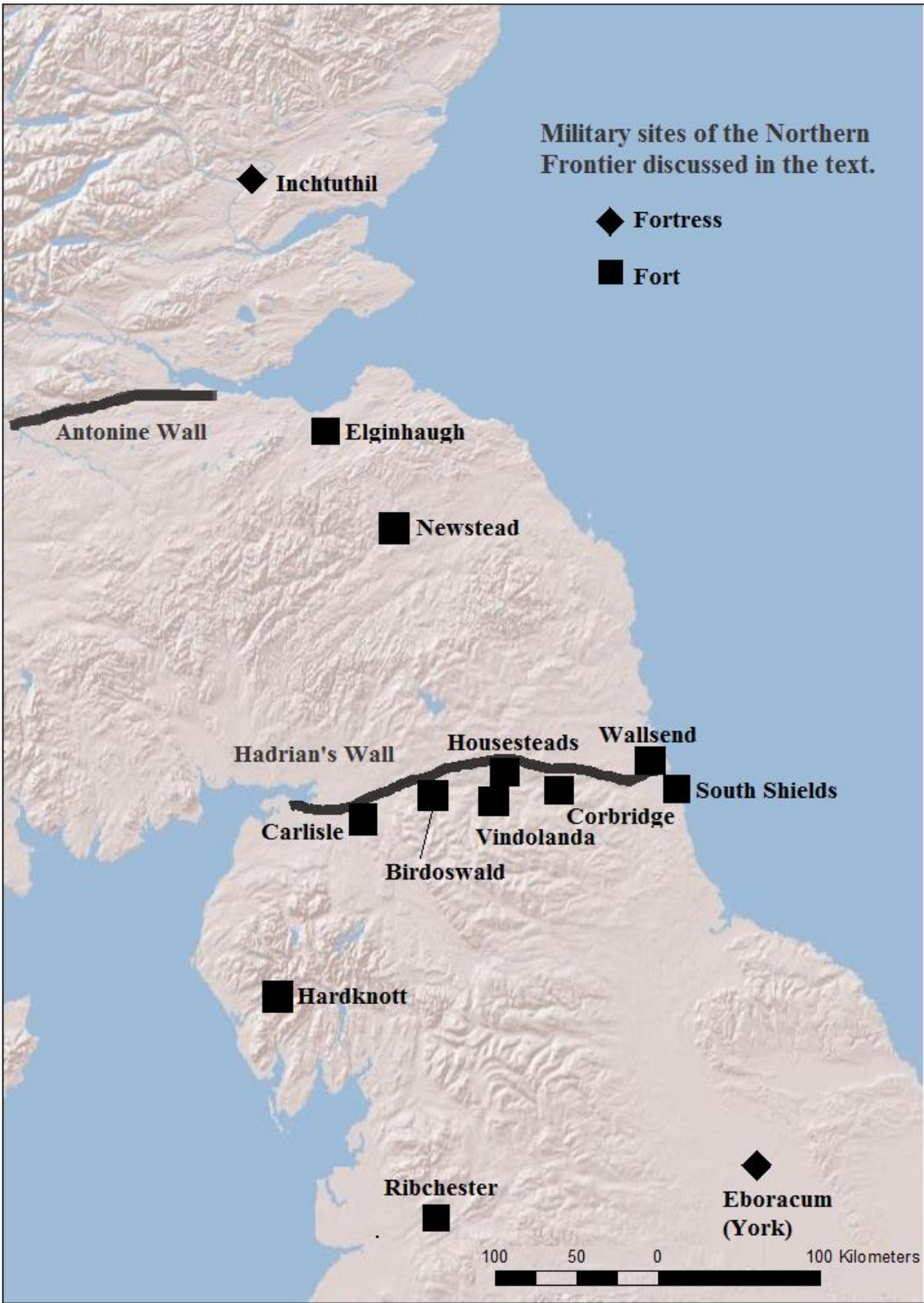
Figure 0.1. Sites on the northern frontier discussed within the text (ArcGIS and MS Paint).

Key dates in Roman Britain:

Emperor	Years (A.D.)	Key events of reign
Claudius	41-54	
	43	Invasion of Britain
Nero	54-68	Julio-Claudian dynasty ends
	60-61	Boudican revolt
'Year of Four Emperors': Galba, Otho, Vitellius, Vespasian.	68-70	Crisis in Brigantian kingdom, Batavian revolt
Vespasian	69-79	Beginning of Flavian dynasty
Titus	79-81	
Domitian	81-96	Last of Flavian Emperors
	83	Agricola's campaign into Scotland; battle of Mons Graupius
	87	Romans withdraw from Scotland
Nerva	96-98	
Trajan	98-107	'Trajanic era'
	92-103	Main period of Vindolanda tablets
Hadrian	117-138	
	122-128	Construction of Hadrian's Wall
Antoninus Pius	138-161	Beginning of Antonine Dynasty
	142-154	Construction of Antonine Wall
Marcus Aurelius	161-180	
Commodus	180-192	Increased warfare in Britain
(Civil wars)	193-197	Commodus assassinated, end of Antonine dynasty
Septimius Severus	193-211	Beginning of Severan dynasty.
	208-211	Severan campaigns in Scotland, ending with death of Severus at York.
Geta	211	(Assassinated by Caracalla)
Caracalla	211-216	
	212	Edict of Caracalla: Roman citizenship extended to all free men in the Empire

Table 0.1. Timeline of Emperors and key dates in Roman Britain.between the invasion of Claudius and the Edict of Caracalla (Adapted from Mattingly 2007:8-9, *tab.* 1).

Frater, soror, contubernalis: Identity relationships in the auxiliary military communities of the northern frontier of Roman Britain in the first and second centuries A.D.

Introduction and outline of thesis.

The Roman occupation of Britain began in A.D. 43 with the invasion of Claudius and lasted until A.D. 409 with the withdrawal of the last Roman officials. Recent studies (e.g. Mattingly 2006, 2011) have addressed the impact that this occupation had on the native population from a post-colonial perspective, resituating the conquest as a complex process of cultural change for which traditional concepts such as Romanization are becoming increasingly outdated (2006:14-15). The introduction of post-colonial analytical tools such as creolisation and discrepant identities has created complex, multi-layered views of society in Roman Britain, through drawing attention to the conflicts in people's sense of belonging during this turbulent period (Webster 2001, Mattingly 2004).

Mattingly identified three distinct identity groups, the military, urban dwellers and rural societies, which did not share a common culture (2006:18). This thesis addresses the first of these. Acknowledging that this was not a monolithic 'Roman Army', with a centralised command structure (James 1999:14; 2001:78; cf. Haynes 1999a:7), I use the term 'Roman military' to refer to the armed forces of Rome when discussed as a whole entity, referring to the lifestyle shared by the Roman citizen legionaries and the non-citizen auxiliaries.

This thesis utilises as its core case study in its examination of identity the auxiliary military communities of northern Britain, within the 'northern frontier' extending chronologically and geographically across northern England and southern Scotland, from A.D. 69 to A.D. 212, using data drawn from well-published sites in the region. This area has been chosen on the basis that it was densely occupied by Roman troops throughout this period, and extensive archaeological excavation has been carried out across the region, including the key site of Vindolanda. The date range has been chosen as it encompasses the period during which the legal status of citizenship differentiated auxiliary and legionary soldiers. The edict of Caracalla in A.D. 212 gave Roman citizenship to all freeborn inhabitants of the Empire, and marked a fundamental shift in military recruitment patterns (Southern 2007:142). This scope also allows me to study the professionalisation of the *auxilia* and the establishment of permanent forts, which form the subject of study here. In contrast to the 'grand strategies' and imperialist motivations of the Roman

military that have been the focus of previous scholars (e.g. Luttwak 1968, Millett 1990, Mattingly 2006; cf. Gardner 2013), the emphasis instead is upon the personal aspects of army life for the *auxilia*, a subgroup that was often viewed as culturally marginal within Roman politics and society, a common characteristic of subaltern subgroups in an imperial military system (cf. Saddington 1997:493).

The military as an identity group encompassed more than the infantry soldiers and cavalry troops. Outside of the hierarchical rank structure of the military (see Appendix **I**), there existed a network of dependants, slaves, traders and local contacts – friendly, neutral, and hostile - each of which contributed to the construction and maintenance of a military identity that transcended the individual origins of the soldiers themselves (Goldsworthy and Haynes 1999). As Simon James has discussed, this 'community of the soldiers' had a distinctive culture based upon shared material culture, language, and professional purpose (1999:14; 2001). By addressing deeper issues relating to institutional and organisational membership, gender, and imbalances of power relating to authority and social status, an approach to military studies is sought that corresponds to the latest developments in Roman theoretical archaeology (cf. Pitts 2007, Gardner 2013). In this regard the thesis may be regarded as an accompaniment to recent works on this topic by Mattingly (2011), James (2011), Haynes (2013), and Allison (2013) that have adopted a similar perspective. I expand upon these by addressing the construction of identity within an institutional context, utilising theory developed within modern military sociology.

This thesis therefore investigates the identities of Roman auxiliaries and their dependants through an archaeological analysis of the documentary evidence, built environment and material culture of the military communities of the north of Roman Britain, in the first two centuries A.D. The aim of studying fort communities at these three levels is to move the debate within archaeology on from the acknowledgement that women, children and other non-combatants formed a significant portion of the population at these sites. We now need to address the complex interactions between community members that defined their identity – and to the limitations set upon these interactions at an institutional level. By addressing these interactions at a global and local scale, a better understanding of the nature of identity within the wider Roman military community can be reached.

It addresses four main questions:

1. How and to what extent were auxiliary soldiers on the northern frontier of Roman Britain inculcated with Roman cultural traditions through institutional architecture, material culture and ways of life?
2. What connections (social, economic, organisational) did they share, and how were these

expressed?

3. By what means were these identities communicated to others, within the community and to outsiders?

4. How was institutional control exercised within these communities, and what forms did it take?

In answering these, I examine the role of the *auxilia* within a hegemonic Roman culture, identifiable through its distinctive political, social, economic, artistic, and architectural institutions and traditions, each represented in the context of the Roman military community and analysed over the chapters of this thesis. This Roman cultural package may be defined as the sum of its Latin language and literature, its architecture, its food and drink, its legal institutions and its engineering and martial expertise. Although not all of these had their origin in the city of Rome itself, they were nonetheless coherent markers of Roman identity within the broader Empire. They should not, I argue here, be viewed as passive indications of Roman military presence or economic wealth however. Roman culture, as expressed within these material and social forms, was both the outcome of and the means by which Roman power was established and sustained, in that it structured the lives and defined the identities of those who were required to live in it. The element of compulsion exerted over those living within a military institution especially raises the issue of the role of these cultural elements in articulating power dynamics (cf. Mattingly 2006:16). In referring to such power negotiations, it is important also to acknowledge indications of agency; of resistance to this cultural hegemony by subalterns or non-Romans living within fort communities. As such I also examine here evidence for identities and practices within the Roman military community that did not fit neatly into our understanding of a Roman cultural package, as these demonstrate an opposing side to these power negotiations. The nature of these negotiations is covered in a systematic manner over the chapters of this thesis.

The first chapter addresses the history of archaeological study of the Roman military, highlighting the traditional atheoretical direction the discipline has taken. This contextualises the recent trend towards incorporation of broader sociological theory, and reexamines institutional archaeology as a basis for analysis within this thesis. In contrast to the 'total institution' model of Goffman (1961), the 'greedy institution' model of Coser (1974) is argued to provide a more suitable basis for examining the relationship between conflicting social identities within the Roman military. This model has been developed within military sociology (e.g. Segal 1986; cf. Moelker and van der Kloet 2006) but has not to date been applied within Roman military archaeology. This thesis argues

for the potential of this model to enable a better understanding of Roman fort communities as societies subject to social (as well as institutional) control by Rome.

The second chapter builds upon this by examining the formation of and relationship between identities of members within the broader 'imagined community' of the soldiers (cf. James 1999, Anderson 2006). A strength of the 'greedy institution' model is that it enables us to consider the interaction and competing demands between conflicting subgroups within a community. In this chapter, two broad category identities are examined within the context of the Roman military community, and martial identities in general: gender and ethnicity. Gender is an important aspect of identity but is often overlooked in discussions of the Roman military, with the military male occupying a normative status and little consideration given to gender performance in relation to others within a community. This section begins with a study of the construction of the Roman military male, and his role within Roman society. This is especially pertinent in relation to discussion of the strong social bonds that isolated the military from civilian society. The discussion then turns to the role of non-soldiers within the fort community and utilises modern sociology to discuss this as a source of conflict and contradiction, establishing boundaries within the community based on gender performance. The next section, addressing ethnicity, considers the political role of the *auxilia* and the impact of colonial administration upon the non-citizen groups that constituted it. Here the sociological concept of the 'ethnic soldier' (Enloe 1980) is used to discuss the subaltern position of the auxiliary soldiers of the Roman auxilia and how it affected their representation of their identity. These two forms of identity are innately bound into 'greedy institution' theory, as both indicate the material and psychological transformation of community members' identity in pursuit of an organisational goal. It is therefore argued that an assessment of the archaeological record of Roman Britain must address these forms of identity as foundational to the broader military community, and correspondingly within the fort communities of the northern frontier. Subsequently, each research question is addressed in case study chapters focusing on archaeological case studies from the northern frontier of Roman Britain, highlighting the different approaches to identity which characterise studies of (respectively) written texts or other forms of iconographic depiction, architecture, and portable material culture.

The third chapter addresses the evidence regarding individual identities within the military community, utilising the epigraphic and representational evidence. Whilst engagement with material culture allowed the performance of identities, these media allowed for identity to be communicated across time and space, through letters, funerary monuments, and inscriptions. Particularly important are the iconic ink-written tablets from Vindolanda and Carlisle which provide an almost unique perspective into military life on the north-west frontier of the Roman Empire

(Bowman and Thomas 1984, 1994, 2003; Tomlin 1998, Bowman *et al* 2010, 2011). This chapter addresses the broader social processes involved in the interactions amongst and between soldiers and civilians. The manner in which the Roman elite regarded the soldiers has a significant impact on the manner in which Roman commanders communicated military identities to the broader world. Inscriptions can also reveal the dependency felt by many soldiers upon the system which supported them – as well as the emotional support they relied upon from their colleagues, families, and kin. That Roman Britons identified themselves differently depending upon circumstance has been recently addressed by Mattingly in his discussions of discrepant identities (2004, 2007, 2011:143-213). His arguments are here discussed in relation to the written evidence of the northern frontier and the communication of military and non-military (male, Roman) identities contained within. A methodology for quantifying references to discrepant identities within such texts is also established.

The fourth chapter addresses the architecture of the military installations and surrounding civilian settlements of the Roman frontier, and interprets how the social use of space affected the construction of identity within the community, from the perspective of the individual, of the *contubernia* (the 'primary group' of the Roman military) and of whole fort communities. This chapter discusses the history and ideology contained within the Roman fort plan, and its role in the creation and maintenance of Roman military identity, through the implementation of an institutionalised built environment. In doing so, this chapter also addresses a contentious issue within Roman military studies. Archaeological discussions of Roman forts typically refer to a 'standard model', a generic fort plan in which buildings or regions within the fort are described solely in terms of their official use by soldiers. This functional approach belies the social significance of the layout of the fort to its non-combatant occupants, and its relationship to the nearby *vicus*. The 'standard model' has also been argued against in recent years for its implicit insistence on absolute gender divides (cf. Driel-Murray 1997, Allison 2006b, Greene 2011). I argue here that acknowledging the impact that the monumental and symbolic aspects of a fort had on its occupants is essential, as hierarchies are reified and social interactions are carried out in reference to its physical limitations of space. This is especially relevant when issues raised earlier in the thesis as problematic elements of military identity, ethnicity and gender, are forefronted. This chapter therefore incorporates an analysis of the archaeological excavations of a number of key forts on the northern frontier, in which the issue of archaeological bias is used to contextualise the extant data and the nature of prior interpretation, as well as highlight the need for further investigation of particular regions of the 'standard model' fort plan, as well as areas such as the *vicus* that normally fall outside it. The chapter concludes with a reinterpretation of the 'standard model' rooted in studies of Roman urban spaces as well as institutional archaeology. It is argued that the 'standard

model' fits an understanding of the Roman fort as a 'total institution', but that this is insufficient for examining the fort as a 'greedy institution', as it excludes architectural elements and interactions that take place outside the fort, as well as privileging the role and actions of soldiers over other members of the fort community.

In the fifth chapter, the role of small finds in the creation, recreation and expression of identity is discussed. Even restricted to military sites these represent a vast assortment of artefact types, beyond the scope of this thesis to examine in exhaustive detail. Nonetheless the need to utilise the bulk of collected data for comparative purposes has been emphasised (eg Allason-Jones 2001, 2002a, 2011). I have therefore focused on categories of portable material culture: militaria, tools and domestic objects, in order to examine contrastive arenas of display and performative possibilities, in the construction and negotiation of identity. The fifth chapter draws on the culturally specific aspects of material culture that relate to expressions of identity through ritual and mundane practices (following James 1999, 2011, Roymans 2004, Nicolay 2007), and how material culture was used in the process of instilling military identities, by means of a *habitus* established through processes of training, through craft and industry, and through foodways. The extent to which Roman militaria was actually uniform - and the ramifications of regimental variation in appearance and equipment types – is addressed here, in terms of the relationships between both fellow soldiers, and other members of the military communities on the northern frontiers of Roman Britain. Material culture associated with the military and related crafting activities can indicate the extent to which a fort community was self-sufficient, or reliant upon long distance supply or local trade. It can also provide evidence of professional identities based upon crafting skill, amongst soldiers or their dependants. Artefacts such as the Vindolanda tablets also provide crucial evidence for quotidian affairs, so they are considered within this chapter, alongside symbolic communicators of identity such as imported delicacies, horse fittings, 'souvenirs' and luxury items. The evidence for these identities is discussed in the context of the 'greedy institution'; in particular, the degree to which the auxiliaries of these communities were inculcated into the broader military community.

These three levels of archaeological data (textual, spatial, material) illustrate how communities were reified at different symbolic levels, through differing archaeological and historical perspectives. Viewing and comparing the three types together allows for an evaluation of the broadest cross section of the military community, as the ability of different members to communicate identity would have differed in relation to their social status.

Chapter One: The Roman Military Community.

1.1.1. Defining key terms.

In this thesis, the Roman military is examined as a complex social entity within the Roman world that provided a strong, martial identity for its members. This identification allowed for the construction of a sense of community that both united members across the empire and differentiated them from non-military populations.

It is necessary to define the term 'community' as it is used here. Providing a universally acceptable definition is problematic, given the ubiquity of the word in many social and academic contexts (Haynes 1999a:9; Jenkins 2004:8). In the foreword of Cohen's *The Symbolic Construction of Community*, Hamilton defines community as: 'symbolically constructed, as a system of values, norms, and moral codes which provides a sense of identity within a bounded whole to its members' (Hamilton, cited in Cohen 1985:9; cf. Haynes 1999a:9, Collins 2008:48, Wanner 2009). Community in this sense is 'largely a mental construct, whose "objective" manifestations in locality or ethnicity give it credibility' (Cohen 1985:108). As well as sharing cultural aspects, communities are recognisable through their symbolic boundaries, or how they differentiated themselves from others. Membership of a community is therefore predicated upon a consciousness of both similarity and difference (Cohen 1985:12-13). This consciousness is inconsistent and will demonstrate itself in different ways at different levels, to the extent that 'objective' boundaries are increasingly hard to justify:

> 'As one goes 'down' the scale so the 'objective' referents of the boundary become less and less clear, until they may become quite invisible to those outside. But also as you go 'down' this scale, they become more important for their other members for they relate to increasingly intimate areas of their lives or refer to more substantial areas of their identities.'
>
> (Cohen 1985:13).

Communities have symbolic boundaries which are experienced in different ways by their inhabitants (1985:15). The ability to share broadly common behaviours can therefore mask a greater level of individuality, as the practices followed can carry imprecise, subjective meanings (1985:21). Cohen's community is one in which the relationship between an individual and the whole is affected by their perceptions of it, filtered through 'the peculiarities of their membership' (see *fig*. 1.1; 1985:88).
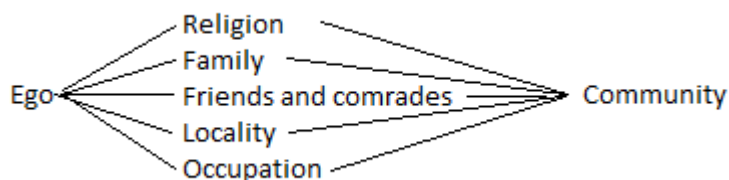
Figure 1.1. The relationship between individuals and the community (after Cohen 1985:88).

Identity is the product of a complex set of negotiations between individuals and groups over which similarities and differences define them. Differences situate a group against an opposing 'Other', against which it can be compared (Cohen 1985). This approach was followed by Jenkins, who emphasised the fluid nature of identity due to this constant renegotiation (2004:111-2).

In this thesis, identity within the fort community is addressed through treating it as a microcosm of the Roman world and the complexity that that entailed. Each chapter addresses constructions of the social world at three levels, following Jenkins:

- *The institutional order*: This relates to the 'established-ways-of-doing-things'. This level of identity encompasses social categories including ethnicity, gender, and institutional identity. These are addressed from a broader historical perspective in the first two chapters, which establish a foundation for the discussion of archaeological material in subsequent chapters.

- *The interaction order*: This relates to the interpersonal relationships between individuals within the context of the fort community. Archaeological artefacts show a reification of the social order and each played a role in defining relations at this level of identity.

- *The individual order*: This relates to embodied individuals, and 'what-goes-on-in-their-heads' (Jenkins 2004:17). This level of identity was practiced by the individual and relates to the core traits of gender, ethnicity, and kinship. As such, it was subject to less fluidity than the higher orders (2004:19). Identity at this level is the hardest to reconstruct archaeologically, as human behaviour is as likely to be determined by social categorisation at the *institutional order* (2004:89).

In this thesis, the term 'military community' is used to refer to the broader society of soldiers and their dependants accross the Roman Empire, inasmuch as it constituted an 'imagined community' in that its members did not have face-to-face contact with most of their peers (Anderson 2006:5-6). 'Fort community' is used specifically to refer to the auxiliary garrisons and *vici* populations of the frontier forts of Roman Britain. The playing-card shaped forts, along with the civilian settlements (*vici*) typically found outside them offer a bounded location for study that encompasses both the

garrison and the surrounding population (cf. Allison 2013). The fort community as a nexus of soldier-civilian interaction was outlined in a key paper by James (2001). Unlike previous studies which had argued for the isolation of Roman military communities from surrounding civilian settlements (e.g. Shaw 1983, Pollard 1996, cf. Haynes 1999a:8), James positioned soldiers and civilians as living and working together in close proximity. The range of civilians connected to the military unit was extensive; from personal slaves, grooms and servants of soldiers and officers, to traders, sutlers and contractors who supplied the community with goods, to families and dependants (James 2001:80; cf. Birley 2010). James argued:

> 'There is…every reason to think that Roman regiments usually formed the armature for fully-fledged social communities, albeit of a special kind, in which soldiers and other citizens and provincials, freedmen and freedwomen, slaves, males and females, children, adults, and the elderly, were all active participants.'

> (2001:80)

Each participant had a different basis for understanding their identity within these communities. The binary distinction of soldier-civilian does not cover the range of social relationships involved; the community included members who were non-military but essential to the running of the fort (such as grooms, traders, and slaves), soldiers performing non-military roles in domestic environments, their children or parents, and potentially veterans as well (2001:80). These diverse groups were united by their shared association with the military, but also by their material and cultural separation from the civilians of the region (Mattingly 2011:223). These were also vocational communities, based around a primarily military function but also incorporating a wide range of crafts and trades, as well as communal leisure activities (although the emphasis in this thesis is on military communities, similar patterns of communality, exclusivity and social marginalisation are also seen in occupational communities such as emergency services and mining communities; cf. Bulmer 1975:85-88, Knapp 1998a:6, Haynes 2013:10-11).

The experiences of members of the fort community differed depending on factors such as status, age, gender and ethnic identity. From these emerged discrepant identities: different ways of expressing identity that were reflected in practices such as use of material culture (Mattingly 2004:9). These identities were fluid, overlapping in the course of each individual's everyday life, each coming to the fore as people interacted with others in different social situations (2004:10-11, cf. Gardner 2007a, Woolf 2002:188; these, and the conflicts in identification that may have arisen, are addressed in further depth in chapter three). Above all however, fort communities were occupational communities, subject to the organisational goals of the Roman military institution.

1.1.2. *Rome and the Armies of Modernity*

The relational nature of identity within the fort community should make any specific one difficult to study in isolation, yet traditional studies of Roman martial identity have done just this by focusing discussion solely upon the soldiers. Factors that have influenced historical and archaeological study of the Roman military to this end are discussed here. This is followed by a discussion of recent theoretical developments in military scholarship and identity studies which can assist in providing a rounded view of Roman military identity. These developments are grouped into three principle themes – institutional identity, gender identity, and ethnic identity – from which the theoretical direction of this thesis takes its cue. In the following sections, the historiography of the Roman military is discussed.

In military scholarship, the interplay of contemporary military experience and perceptions of past military practices is a recurring theme. Certain universalities are often assumed by modern scholars, especially those with military experience, with regard to how armies operate, from the practicalities of logistics and battle tactics to the psychological aspects of morale, discipline and leadership. Peddie's introductory remark in *The Roman War Machine*, '[t]he basic arts of soldiering have surely changed but little in two thousand years and more', is typical of this attitude (1994:xiii). The impact developments in military practices have had on archaeology was traced by James in a landmark paper in which he outlines a historiography of Roman military studies (2002).

The perceived universal nature of military practices has been a truism since the decline of Rome. From the Renaissance into the seventeenth century, the idealised Roman legion can be found in the writings of scholars, commanders and princes; Machiavelli, de Saxe, Gustav Adolphus and others sought to reintroduce Roman military training and organisation into contemporary militaries (James 2002:7; cf. Keegan 1976:64). Although these writers referenced classical writers such as Vegetius, they neglected the significance placed by these on morale and its role in military successes; these 'less comfortable matters' were inconvenient realities for their model armies (James 2002:8; cf. Duffy 1987:53, Phang 2008:37). As Keegan argued:

> '…[I]t is obvious…that from the seventeenth century onwards, it is Roman military practices – drill, discipline, uniformity of dress – and Roman military ideas – of intellectual leadership, automatic valour, unquestioning obedience, self-abnegation, loyalty to unit – which are dominant in the European soldier's world.'

> (1976:64)

This trend for abstraction continued over the following centuries, in which military models began to treat individual soldiers as 'chess-like pieces' in a 'mighty, irresistible machine' (James 2002:8). This development followed the mechanisation of warfare, as the introduction of artillery and firearms demanded precision and efficiency from their human operators (James 2002:8; Phang 2008:49; cf. Baatz 1978). As the ideal army in the nineteenth century became a homogenised, well-drilled mass, the individuality of the soldier was lost in systems requiring absolute discipline – exemplified by the Prussian *Kadavergehorsamkeit,* 'corpse-like obedience' (Phang 2008:50-1, 74).

The idealisation of the past affected academia in the nineteenth century; a period during which, James argues, there was a paradigmatical change in how the Roman military was interpreted: '…if we, the descendants/successors of the Romans, are like them and equally successful in our imperial civilization, then surely the Romans must have been like us' (2002:9). This tautological relationship led to depictions of the Roman military engaged in automaton-like displays, in which drills were performed with mechanical precision. Soldiers were cogs in a machine, carrying out military objectives without the need for personal commands (Delbrück 1975, Dawson 1996:112; cf. especially Goldsworthy 1996:283). Drill and training certainly were taken seriously by Roman military commanders (e.g. Hadrian's Lambaesis address discussed further in **5.3.5;** cf. Speidel 2006), but Roman sources generally favoured a relatively loose order, in which individual soldiers had freedom to move and act independently (e.g. Vegetius 3.14; Phang 2008:50; see below).

This paradigm survived into the twentieth century within Roman archaeology, largely due to the significant roles played by serving or retired soldiers in the archaeological investigation of Roman military sites across the Roman empire, from Major-General Roy in Scotland in the eighteenth century, to Mommsen's joint civil-military surveys of the German *limes* in the early years of the twentieth century (Peddie 1994; Roy 1793; James 2002:10). For these scholars, personal experience of military life legitimised their arguments and interpretations (cf. Basham 2013:8-9). These experiences provided invaluable insights (e.g. on military anecdotes, Horsfall 2003:105) but also lead to anachronistic interpretations. James cites Baatz's conviction that his experience of manning anti-aircraft guns in Berlin in 1945 'meant he had nothing to learn from others about Roman torsion artillery' (2002:10). The dangers of accepting contemporary military perspectives are illustrated by anachronistic arguments - for instance, Luttwak's *Grand Strategy of the Roman Empire* (1976), in which the Pentagon strategist directly applied Cold War politics and strategy to the Germanic *limes* of the Late Roman Empire (an approach discredited by Isaac: 1992:372-418; cf. Alston 1995, Kagan 2006). The implication is that militaries are directly comparable not only in terms of abstract notions of duty and discipline, but also in rules and practices. This effectively made theoretical discussions carried out elsewhere in archaeology irrelevant (e.g. Speidel 1989b,

cited in Alston 1995:3). The perceived unwillingness of Classicists to engage with broader developments in archaeological theory became a cliché (cf. Johnson 1999:184), and Roman military studies have consequently been typecast as atheoretical in methodology (James 2002:5).

1.1.3. *Roman Military Studies and the Durham School.*

Within Britain, Roman archaeology was affected by an early division between study of the civil and military spheres, leading to the geographical segregation of Roman frontier studies in the 'military zone' of the north and west from the archaeology of the 'civilian zone' of the south and east (2002:4). The field of Roman military studies was dominated in the 1950s by the 'Durham School', led by Eric Birley (James 2002:5, 14, cf. Alston 1995:3-4). This school had close connections with German academia, where *Limesforschung* (frontier research) since Mommsen had been instrumental in establishing methodological approaches within Roman military studies (James 2002:16-17). For followers of this school, excavation was secondary to historical and textual evidence. Through epigraphy and prosopography, Birley and his successors sought to explain the Roman military almost wholly in organisational terms (James 2002:21). Followers of Birley (e.g. Watson 1981, Davies 1989) addressed the lives of individual soldiers, but did so by focusing upon the rules and regulations by which they lived. This bias is evident in the relative lack of investigation into the civilian contexts of Hadrian's Wall compared to the interiors of the forts (2002:23-4).

For the Durham School and its followers, the Roman world conformed to their expectations as it did for the Renaissance writers. Archaeology as a means of exploring alternative interpretations was dismissed, against the primacy of textual evidence (Alston 1995:6, James 2002:22). However, the Durham School was successful in directly addressing the great volume of textual evidence from the Roman world, providing a body of evidence that could subsequently be utilised by theoretical archaeologists within contemporary Roman military studies (cf. Hingley 2008). Roman military studies are moving towards a holistic approach to archaeology which utilises emerging theoretical developments in the reinterpretation of archaeological data (cf. Gardner 2003a:438-9, James 2002:49, James 2003:183). This thesis contributes to this research direction by utilising military sociology to highlight key characteristics of a military lifestyle, whilst acknowledging the historical specificity of specific military institutions. In the next section, a contemporary theoretical context for military identity is established.

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1.2.1 *New priorities in military identity studies.*

In the previous section, the study and interpretation of Roman military practices by Renaissance writers were discussed in context of the development of contemporary Roman military studies. Military leaders such as De Saxe and Frederick the Great based their military strategies on what they knew of the legions. This approach ignored essential differences in combat techniques, and romanticised Roman values which were viewed as instrumental in Rome's military victories. They failed to address what it was that made soldiers actually fight. This positivist outlook obfuscated the study of elements of Roman military life that may be contrasted with that experienced within contemporary militaries. As the above discussion of the 'greedy institution' indicated, it is possible to construct generalities of military life and use these as a basis for analysis. It is important however that this is done in a qualified manner, without appealing to an authority based solely on personal experience. This debate has also been fuelled by the contribution of professional soldiers and military writers to discussions of historical military identities, such as Marshall (1950) and Holmes (1985, 2004). As Holmes has argued:

> 'Direct experience [*of battle*] is, of necessity, limited, and the writer who extrapolates only from personal knowledge risks discovering a universality where none exists. Indirect experience, culled from a wide a range of sources as possible, is more likely to illuminate the real truth.'

> (Holmes 2004:9)

Therefore, I argue here (in common with Holmes) that in contrast to purely biographical reflections on personal histories, ethnographies and sociological studies covering a broad range of sources can best illuminate what it is that makes soldiers fight.

In the following section I discuss military identities, drawing upon recent sociological studies of military communities and examining how these can be applied to the Roman military. My emphasis is not on describing the function or political purpose of the militaries, but rather on how and *why* exactly soldiers can perform the duties that are required of them. In this sense, current scholarship contrasts with the atheoretical approaches of traditional Roman scholarship, in that the focus is upon the psychology of individuals and of groups. There is of course a tremendous technological and chronological gulf between the wars of antiquity and

modern warfare. However, soldiers of any period can be viewed not as automatons, but as human beings with individual weaknesses:

> '…[W]hile the weapons and processes of war, amongst many other things, have certainly changed dramatically over time, many constants remain. Modern combat personnel are still human beings with the same innate psychological and physical fragility as their predecessors, meaning that the ancient and modern soldiers' reaction to combat stress or leadership, for example, is analogous, albeit historically contextual.'

> (Newsome 2007:2)

Newsome, a policy scientist, sought to explain why some soldiers outperformed others, through a study of the various characteristics attributed to combat personnel. These he divided into extrinsic and intrinsic attributes:

> 'Extrinsic attributes are personnel attributes derived from the military by socialization[*sic*], training, and other forms of conditioning. Military derived skills, belief systems, and value systems as well as group- or unit-level attributes such as cohesion are examples. Intrinsic attributes are those human resources that the civilian brings into the military as genetic, cultural, or social endowments. A person's intelligence quotient, ethnicity, familial systems, political belief systems acquired as a civilian, and civilian trade skills are all examples of intrinsic attributes.'

> (2007:5-6)

This division provides a useful heuristic framework when examining current interpretations of military communities. Rather than simply being incidental to the primary function of a military – the use of violence, or the threat thereof – the social and institutional lives of soldiers are increasingly seen as key to understanding how militaries function at all. Using the division of extrinsic/intrinsic enables the categorisation of aspects of military lifestyles as culturally or institutionally rooted. These can then be used to provide a greater understanding of the effects of military life on individuals.

1.2.2. *The soldier's experience of battle.*

Following the Second World War, the military historian S.L.A. ('Slam') Marshall produced a study that initiated a reassessment of martial identity (1947[2000]). Marshall argued that only 25% of American riflemen actively engaged with the enemy without the direct influence of a commanding officer, even amongst experienced soldiers in the latter stages of the war

(Marshall 1947[2000]:50). These ratios demonstrated that the military was not an institution comprised of homogeneous individuals. Although heavily critiqued (cf. Miller 1988), the impact he had on military studies was significant. Marshall also described the importance of the social bonds that the soldier formed with his comrades to his performance in battle:

> 'It is that way with any fighting man. He is sustained by his fellows primarily, and his weapons secondarily. Having to make a choice in the face of the enemy, he would rather be unarmed and with comrades around him than altogether alone, although possessing the most perfect of quick-firing weapons.'

> (Marshall 1947[2000]:43)

This marked a departure from the abstracted view of the soldier as a component in a machine, defined by his equipment. For Marshall, the support of a peer group was essential to a soldier. In battle, the ability of a soldier to communicate and identify with soldiers in his immediate proximity was paramount (Marshall 1947[2000]:154).

The primacy of interpersonal relationships came to the forefront on the battlefield, in life or death situations. But the social bonds relied upon were formed outside the immediate context of battle, and depended upon the broader context of military life, even if the actual number of comrades on whom a soldier based his concerns was comparatively small. Marshall's arguments were supported by empirical evidence of this in Stouffer's landmark questionnaire-based sociological study of US soldiers, which highlighted the sociological concerns of the soldiers and how they could be mitigated through social bonds (1949; cf. Ryan 2010:116).

This had been true of other armed forces during the Second World War. A wartime study of the social structure of a Finnish infantry regiment by soldier and sociologist Pipping provides an insight into how different roles and relationships were formed within regiments (1947[2008]; cf. Siebold 2010). Pipping observed that every soldier in his unit belonged simultaneously to six distinct identity groups; these were the unit as a whole, their rank, their locality (the base at which they were stationed), their 'age' (duration of service), their place of origin, and finally their mess kit group, the small group of fellow soldiers with whom they lived and fought (1947[2008]:252). Soldiers identified more strongly with a given group depending upon the context of their interaction with others. Like Marshall, Pipping identified the last, small group as the most important to a soldier's sense of identity and well-being. Although his findings had limited impact at the time, in part due to being published only in

Swedish and Finnish until 2008 (Siebold 2010:388), they would be supported by other observers of Axis forces. The most significant paper resulting from research in this period aimed to explain the low rates of desertion or mutiny in the German Wehrmacht (Janowitz and Shils 1975, published 1948). Although this had been attributed to ideology, political issues were of limited interest to German troops (1975:181; notably this research was based on interviews with German prisoners of war - for a more critical reading see Jones 2012:15). As with Marshall and Pipping, Janowitz and Shils identified the primary importance of social factors to the cohesion and performance of soldiers. They qualified this by clarifying the role of the 'primary group':

> 'For the ordinary German soldier the decisive fact was that he was a member of a squad or section which maintained its structural integrity and which coincided roughly with the *social* unit which satisfied some of his major primary needs. He was likely to go on fighting, provided he had the necessary weapons, as long as the group possessed leadership with which he could identify himself, and as long as he gave affection to, and received affection from the other men of his squad and platoon. In other words as long as he felt himself to be a member of his primary group and therefore bound by the expectations and demands of its other members, his soldierly achievement was likely to be good.'

(Janowitz and Shils 1975:181; emphasis theirs).

The term 'primary group' had originally signified social bonds in the civilian world in psychological research; it defined the connections between face-to-face association, and sympathy and mutual cooperation (Cooley 1909:23, Moskos 1970:8, Newsome 2007:129). By applying this term to military organisations, the psychological values which affected social interaction within these institutions could be better understood. This new research direction focused upon the initimate interactions between soldiers, who as well as fighting slept, washed, ate and worked in close proximity, as a means of constituting and reproducing military identities.

This debate has focused upon the social and intimate aspects of morale, in the context of the primary group, and also the organisational factors (especially communication) that Marshall argued were key to improving military performance on the battlefield (1947[2000]:133). King has emphasised the importance of extrinsic factors such as training in influencing unit cohesion (2006, 2007, 2009; regimental theory follows primary group theory in this regard, Newsome 2007: 6-7), whilst others have argued for the importance of recruiting and

supporting soldiers with intrinsic warrior attributes (e.g. Henrikson 2007; cf. Marshall 1947[2000]:60-2).

The findings of Marshall, Janowitz, and Shils, have been applied to a number of historical and contemporary militaries (e.g. Holmes 2004, Jones 2012, Keegan 1976, King 2009, Kirke 2009, McPherson 1997, cf. Chodoff 1983, Wong *et al* 2003, Siebold 2007), demonstrating the continuing importance of these two papers within modern military sociology even where there is disagreement. Primary group theory therefore plays a central role in how modern military forces are now understood to function as social units. I will now argue that this approach may be applied in the context of the auxiliaries of the northern frontier. In the next section, the application of these theories to the Roman military by previous authors is discussed, and an original approach established.

1.3.1. *Roman Institutional Military Identities*

The application of sociological observations of combat to historical contexts was pioneered by Keegan in *The Face of Battle* (1976), who used primary group theory to challenge traditional narratives of famous battlefields ('battle pieces') that focused upon leadership. Keegan followed Marshall in shifting the focus of battle pieces onto the small groups of men who were central to the outcome of the battle (1976:53). Studying three historic battlefields (Agincourt, Waterloo, and the Somme), Keegan reconstructed the experience of battle from the perspectives of the infantry, cavalry and artillerymen, emphasising especially the horrifying nature of the battlefield as an environment and how this challenge was overcome by the troops, as individuals and as groups of individuals. Keegan highlighted the cultural diversity of historical armed forces, in 'a personal attempt to catch a glimpse of the face of battle' (1976:78).

His discussion of Roman battles however was rooted in the mechanical analogy, as he dismissed the Roman Legions of classical accounts as monolithic in character (1976:69; cf. James 2002). For Keegan, accounts of Roman battles such as those of Caesar (e.g. the defeat of the Nervii, *Gallic War* 2.25) were the inspiration for the mechanical depictions of armed forces that were so prevalent in the later periods (1976:65-6). He neglected to address the discussion of the psychology of soldiers in those accounts (1976:66; cf. Lendon 1999, Krebs 2006). Keegan relied upon the stereotype of the emotionless Roman soldier, established in Roman training manuals such as that of Vegetius, to favourably frame his discussion of Greek historiography (1976:69, Goldsworthy 1996:9-10; Vegetius in the eighteenth century:

Duffy 1987:53, MacMullen 1984). Goldsworthy acknowledged the strengths of Keegan's approach but noted that Roman writers such as Caesar and Tacitus did not perceive soldiers as the clockwork legionaries that seventeenth-century authors sought to emulate. Indeed motivation, morale and discipline were given precedence over topography, or drill and tactics, in their accounts (Goldsworthy 1996:9-10, 115, 1999; cf. Lendon 1997:239). He argued:

> 'The man using a weapon, and subject to extremes of emotion, most of all fear, under the stress of battle, was and is far more important than the implement he uses. To argue simply that he is a disciplined Roman soldier and therefore would have continued to carry out the drills taught to him despite the stress of battle, is contrary to our literary evidence. We must understand the behaviour of the man using the weapons and wearing the armour, if we are to understand battles.'

> (1996:173-4)

Goldsworthy argued that previous studies of the Roman military had focused too much on the peace-time characteristics of the military, from the development of military equipment and architecture to the civilian-soldier relationship, and not enough to the actual function of the military (1996:11). Following Keegan, Goldsworthy studied a number of campaigns within the late Republic and early Principate, and addressed the battle experiences of the general, the unit, and the soldier. This approach, based on literary and archaeological accounts, and supplemented by accounts of early modern battles, enabled a comprehensive reassessment of Roman warfare. Goldsworthy highlighted the aggressive nature of Roman warfare, as well as the tactical flexibility and adaptability of the military as a whole (1996:38, 227). He also addressed the psychological factors affecting Roman troops in battle, emphasising morale, discipline and leadership. In doing so he echoed recent studies that have discussed military performance over history in relation to the Romans (Keegan 1976, Holmes 2004; see Lee 1996 and Gilliver 1996 for further discussion of Roman morale in battle; cf. Melchior 2011).

However, the social factors affecting morale that are discussed were established outside of the immediate context of battle (cf. Jones 2012). The extrinsic processes of training and team building are seen by modern scholars to be crucial to the establishment of an effective fighting force (King 2006, 2009). It was during these periods that soldiers underwent processes that established and strengthened the personal bonds they later relied on in battle. The time spent in camps and forts, with families and other non-military personnel, also

contributed towards establishing their identity as a culturally discrete part of Roman society. Goldsworthy excluded the architectural remains of the Roman military from his study, reasoning that they were irrelevant to the function of the army in battle (1996:11). Yet I argue here that forts framed the social life of the soldiers and were the centre of activities that instilled the collective identities that were relied upon in battle, as demonstrated above by Pipping, Newsome and Marshall. In contrast to the combat focus of Goldsworthy, as utlined above, the fort is also argued to be the architectural reference point for the institution of the Roman military, and therefore fundamental to our understanding of the construction of identity within the Roman military community. The discussion now turns to interpretations of the Roman military as a distinct social institution.

1.3.2. *The Community of the Soldiers.*

The role of community within Roman military identity has been addressed by a number of key texts in recent years. James' discussion of the 'community of soldiers' in particular has established the military as a discrete entity within the Roman world (1999, cf. MacMullen 1984, Lendon 1997:239). This 'community' incorporated individual military settlements across the Empire, especially along the frontiers, yet could be conceived of as a singular identity group. As such, it can be described, after Anderson, as an 'imagined community', in which group members who never encountered each other nevertheless recognised a common bond (2006:6-7; cf. Haynes 2013:11). This thesis addresses how identities and interactions at the local level, within individual fort communities, reflected this imagined connection to Roman soldiers across the Empire. My analysis now turns to the formulation of identity within this imagined community.

The identity of new recruits was deeply affected in a number of ways upon entering this group, corresponding to Cohen's inclusive description of community bonds (see above):

> '...[A] sense of personal attachment to regiment, emperor and Rome was achieved by inducing in the recruit (*tiro*), whether volunteer or conscript, a profound ontological shift; his entire sense of being was systematically changed as he acquired a new identity, or more accurately, changed some of his multiple existing identities, and perhaps acquired additional ones. The process of joining a regiment affected his cultural/national/ethnic identities, social status, 'professional' and perhaps religious identities, and indeed the definition of his masculinity.'

> (James 1999:16)

The auxiliary recruit entered a controlled environment in which he was exposed to an often unfamiliar regime of training and religious practice. This was an overtly masculine environment with a distinct warrior ethos. He may have learned a new language – primarily Latin, but also the *sermo militaris*, a mix of jargon and other languages incorporated into a distinctive means of expression (James 1999:16; also known as the *sermo campestris*, or field idiom, Horsfall 2003:104; cf. Haynes 1999:169-72, 2013:311). He would have learned from his peers how to dress, wash and groom himself in a particular manner. Taking part in group activities such as training bonded him to the unit in which he served; he ate and slept with the primary group with which he would most strongly identify, and whose personal support he would most rely on - the *contubernium* (MacMullen 1984, James 1999:16-17, Goldsworthy 1999:257). The military was thus divided into multiple levels; from the lowest level of the *contubernium* (or *turma*) to century and cohort (or *ala*; see Appendix **I**), and higher still to provincial identity and the broadest context of the Roman *miles,* each identifiable as a member of an Empire-wide group (James 1999:18).

The soldier identified in a different manner after his recruitment, and if he survived to retirement, he experienced life as a veteran as well (MacMullen 1984:441-2, Nikolay 2007:261). He may still have remained an active member of the fort community, as he would likely have settled close by in the time period covered in this thesis (90% of auxiliaries remained in the province in which they had been stationed; Kellner 1986:242-3; cf. Nikolay 2007:161). Military service therefore had a transformative effect upon the recruit. How this transformation was effected has most recently been addressed by Haynes (2013), who utilised the concept of the 'occupational community' to frame the collective identity of the Roman military:

> 'Three attributes of classic 'occupational communities' contribute to a shared sense of belonging. First, members share work that carries particular responsibilities and dangers. Second, they enjoy 'marginal status' – a product of the tension between their recruitment from lower-class social groups and their privileged status as the instruments of state power. Third, their work is both intentionally and incidentally exclusive. Members enjoy particular privileges that others do not share, but the circumstances of their work affect their freedom to interact with other groups.'

(2013:10-11).

Haynes utilises sociological studies of industrial communities here (following Gerstl 1961 and Salaman 1974) to categorise the Roman military as a particular form of institution, based upon collective labour that differentiated them within the Roman world. Although military service carried prestige, it also isolated group members from society, exploiting those in a position of limited political, social and economic power. As will be discussed in the next chapter, these contradictions are aptly applied to the Roman military. However, they will not have applied equally across all members, and to this model must also be applied the concept of internal tensions between community members. There is therefore room for development of this model which can be drawn from a return to the concept of institutional identity and the impact institutions have on the identity of their members. In the next section, I raise the potential this approach has to change how we view the institution of the Roman military.

1.3.3. *Institutional identities: Total and Greedy Institutions*

It is important here to define the term 'institution' as it has been applied to the Roman military, and to introduce alternative usages which may be used for a more nuanced analysis. In this section, two models utilised within this thesis are discussed: the 'total institution' of Erving Goffman (1961), and the 'greedy institution' of Lewis Coser (1974). Within sociology, the 'total institution' has been particularly influential.   Introduced by Goffman in his study of 1950s mental asylums, 'total institutions' are defined as:

> '…a place of residence or work where a large number of like-situated individuals, cut off from the wider society for an appreciable period of time, together lead an enclosed, formally administered round of life. Prisons serve as a clear example providing we appreciate that what is prison-like about prisons is found in institutions whose members have broken no laws.'

> (Goffman 1961:11).

A 'total institution' is a built environment that isolates and alienates those inside from the outside world. Physical barriers, such as gates and walls, prevent free movement; inside these, a way of life is followed that is distinct from that which occurs outside. This internal life is self-supporting and defined by codes of practice based around communal activity and collective symbolic rituals of unity (1961:90). A single authority oversees subservient occupants ('inmates') who are treated as an undifferentiated mass, required to act with a single purpose. These actions are governed in time and in space, striving towards a singular purpose (1961:17). Mediating between the single authority figure and the inmates is the

supervisory group, with a social division existing between the three (1961:17-19). The concept of the total institution covers a range of organisations with different goals, from the punitive containment of a dangerous subsection of society (e.g. prisons) to protection of the harmless but incapable (asylums, hospitals), to the organisation of groups with a common goal (schools, work camps, barracks; 1961:16).

The 'total institution' framework enjoyed some attention within Roman military studies, as it appeared to support a perspective of the army that corresponded to traditional understandings of soldiers and civilians as wholly distinct groups, separated by a process of cultural transformation (Shaw 1983, Pollard 1996; cf. James 2001:80, Haynes 2013:18), a historical trend that is discussed in further detail below. Goffman's framework has been highly influential within sociology, but also controversial for its perceived oversimplification of institutional life, and it has frequently been misapplied to describe institutions in which the physical enclosure of subject populations has not been absolute (cf. Coser 1974, Giddens 1984, C. Davies 1989, Smith 2006).

Similarly, the application of this model to Roman military communities has now been largely rejected as problematic (Pollard 2000, Haynes 2013:18-19). As this thesis will discuss, the auxiliary garrison within the fort community can no longer be accepted as a 'total institution' divided from its civilian counterpart by impenetrable physical and social barriers (cf. Allison 2013, A. Birley 2013). Auxiliary soldiers maintained relationships with those outside the official hierarchy of the military, from family members to slaves, sutlers and barkeepers, and even interactions of a more negative kind (such as encountering hostile locals or prostitutes) constituted social connections outside the built environment of the fort. As Birley argued:

> 'The walls of forts…presented no genuine great divide and we can no-longer simply regard extramural settlements as civilian settlements… The demarcation between communities on the frontier may not have been the walls of the forts but the interfaces between the extended military community of each site and the population of the wider civilian hinterland'
>
> (2010:295; cf. Greene 2011:10).

The extramural region of the fort must therefore be seen as part of the overall architecture of the military community (this argument is returned to in chapter two). The walls were a barrier that was also permeable to some degree. Soldiers passed through the *vicus* in a professional or private capacity; it is also increasingly apparent that women were admitted into the fort, despite or regardless of the defences (Greene 2011:10, Allison 2013). It is

therefore better to view forts and their extramural settlements as 'essentially nucleated settlements' (McCarthy 2002:95). Understanding how these settlements organised themselves as socially coherent structures, separated from the civilian world is a challenge that archaeologists have recently begun to address. Haynes' use of the 'occupational community' (2013:10-11, see above) serves as a means of recognising the features of these processes of societal formation and distanciation. However, this model also obscures imbalances of power within the context of the institution; it focuses primarily upon the professional characteristics of certain members of the community (in this case, men who are soldiers), and does not differentiate on the basis of status within even this group. In other words, it is not enough to discuss the means by which a community differentiates itself from surrounding society; but also in how different identities conflict or cooperate within it.

With this in mind, an alternative model for the ideological ordering of space and society within the fort community, and the relationships between military and non-military members (especially family members) should be considered. The 'greedy institution' of Coser (1974) has so far remained unacknowledged within Roman military studies. I believe that this approach can provide a social parallel to the physical containment of Goffman's model which better explains the institutional character of the Roman military (cf. C. Davies 1989), and has the potential to expand upon recent studies of the roles of women and other non-combatants within auxiliary fort communities (e.g. Allison 2013).

Coser began from the position that individuals within a society have finite energy resources that they can devote to carrying out activities. Groups, organisations and institutions compete for both the resources of these individuals, just as they do for material resources, and for their loyalty (1974:1). In contrast to the 'total institution' model however, institutional identities are not inherently exclusive here. Within this framework, individuals remain socially active, at the centre of overlapping social affiliations that each makes demands of their time (1974:2). Generally speaking, society is structured in such a way that ongoing negotiation and reconciliation between these conflicting interests is normalised. In a modern context this may be seen in the establishment of the working week, regular holidays, and compulsory education – initially radical reforms, these have become established as a formal means of balancing the competing demands of labour, family, and education (1974:3-4).

However, even within such a system there are organisations or social institutions which make more complete demands of the loyalties and energies of their members. As Coser describes,

'These might be called *greedy institutions*, insofar as they seek exclusive and undivided loyalty and they attempt to reduce the claims of competing roles and status positions on those they wish to encompass within their boundaries. Their demands on the person are omnivorous.'

(Coser 1974:4)

Such institutions affect a totalitarian hold on the minds of their members, even when not physically containing or isolating them from other populations or competing institutions.

'There are evident overlaps between "total" and "greedy" institutions, yet these terms denote basically different social phenomena. Goffman focuses on physical arrangements separating the "inmate" from the outside world, while I shall show that greedy institutions, though they may in some cases utilize the device of physical isolation, tend to rely mainly on non-physical mechanisms to separate the insider from the outsider and to erect symbolic boundaries between them…[although interacting with the rest of the population] [t]hey are nevertheless socially distant from the ordinary run of citizens because of the nature of their statuses and prerogatives.'

(Coser 1974:6)

By moving beyond the architectural containment inherent to the 'total' institution, Coser's approach enables the study of institutions with undefined or permeable physical boundaries. The principle advantage of the 'greedy institution' approach is that it enables us to consider overlapping identities within an institutional framework, rather than focus on an inside: outside dichotomous relationship. Another key distinction from the 'total institution' is that individuals are not necessarily coerced into membership of 'greedy institutions':

'On the contrary, they tend to rely on voluntary compliance and to evolve means of activating loyalty and commitment…Greedy institutions aim at maximising assent to their styles of life by appearing highly desirable to the participants.'

(Coser 1974:6).

The potential for identity expression within this framework is greater than within the total institution. Once outside the direct scrutiny of their peers, individuals are free to act in ways that contradict the norms of the institution, allowing thm to sustain a wider range of identity relationships (1974:7). The greedy institution however endeavours to deny such freedoms by removing or marginalising outside influences:

'Being insulated from competing relationships, and from competing anchors for their social identity, these selected status-occupants find their identity anchored in the symbolic universe of the restricted role-set of the greedy institution.'

(Coser 1974:7-8).

The insulation referred to took multiple forms, depending upon context. In his study, Coser examines a range of social institutions which made totalitarian claims on the lives of individuals, dealing with 'persons serving greedy rulers; with men and especially women serving greedy families; and with persons serving greedy collectives' (1974:8). The first two categories are of most interest for this study, as will be outlined over the rest of this chapter.

Coser did not address military organisations specifically, but did highlight elite forces as a potential subject for future research (1974:17). This was followed up by the sociologist Mady Wechsler Segal in 1986, in a paper in which she discussed the military as a 'greedy institution' in counterpoint to the nuclear family, and the impact of these competing forces on the military family. Although Segal focuses on the United States armed forces in her case studies, she also discusses in general terms the 'pattern of demands' that show military life to be abnormally greedy:

'Characteristics of the life-style include risk of injury or death of the service member, geographic mobility, periodic separation of the service member from the rest of the family, and residence in foreign countries. There are also normative pressures directly on family members regarding their roles in the military community.'

(Segal 1986:16)

These characteristics are common attributes of military life, and accordingly the 'greedy institution', following Segal, has retained its prominence within military sociology into recent years (cf. Moelker and van der Kloet 2006). There has been an increasing recognition that the 'greedy' demands of the military on the family have had a range of negative consequences, and that there is a need for the military to adapt to new socio-political norms regarding the role of women in the military, and of the consequences of hypermasculine ideologies on rates of domestic violence (Coser 1974:3-4; cf. Enloe 1988:12, Cooney *et al* 2003, Burrell *et al* 2006, Wong and Gerras 2006, Harrison and Laliberté 2008, Eran-Jona 2011, Vuga and Juvan 2013).

Segal's definition of the military as a 'greedy institution' establishes a more suitable framework for considering the Roman military than the 'total institution' of Goffman. It enables us to consider the relationship between identity groups within a military community, each with conflicting claims on the time and loyalty of its members. As will be shown, the actions of the Roman military in isolating its professional soldiers from the distractions of marriage and family were those of a 'greedy institution' (see **2.3.2**), as does the displacement of ethnic auxiliary soldiers from their homelands (see **2.4.1**). Yet in recognising that the soldiers had personal connections outside the military, extending to unofficial wives and extended families (Phang 2001), there follows all the complexities to be expected of these relationships, in which competing demands were made of the soldier with regards to his time, attention, and productivity. These two networks of the military and the family provided physical and emotional support to the soldiers, and although they could be regarded as being in competition to each other, they could also be mutually beneficial (Segal 1986, Wong and Gerras 2006). It is also important in this context to consider other members of the community not necessarily connected by familial or organisational bonds. Servants, slaves, traders and other craftsmen were connected to the Roman military by economic and social bonds (see **2.3.3**), yet were still bound into the greedy social and economic demands of both military families and the institution itself.

Over this thesis, I will utilise these two models of the institution together to provide a new understanding of the establishment of the auxiliary military community. The boundaries between 'non-military' and 'military' identities will be shown to have been both physical and mental, constructed through the discourse of ritualised and mundane activities, and through the constraints of the built environment. It is however necessary to establish exactly what characterised distinctly Roman identities, in order to establish the extent to which this modern theoretical understanding can be applied. In the next chapter, the development of our understanding of an institutional 'Roman military identity' within the auxiliary garrison of northern Roman Britain is discussed, focusing on the two most salient forms of identity in these communities: gender and ethnicity.

Chapter two: Reconstructing the Imagined Community of the Soldiers

2.1.1 *The Imagined Community: Roman Military Identity.*

This chapter develops the key themes and theories established within the first chapter by contextualising historic forms of identity within the Roman world, in particular those relating to the military community. This is achieved through the analysis of literary and ethnographic sources, highlighting the role of colonial ethnography and gender discourse in the construction of idealised martial characteristics and consequently the formation of institutional structures and practices. These provide a baseline for archaeological analysis in subsequent chapters. First, it is necessary to position this research methodology in relation to contemporary trends in Roman military studies. James and Phang have both recently addressed military identity by challenging stereotypes that have historically dominated studies of the Roman military, within archaeology and classics respectively (James 1999, 2001; Phang 2008). The Roman 'community of soldiers' was divided at a fundamental level based on citizenship status, and the processes involved in the creation of the military identity of auxiliaries should be addressed. The discussion now moves to two aspects of Roman culture, gender and ethnicity, which were central to the assignation and performance of Roman auxiliary military identity.

In the following sections, the role of gender studies in the study of military communities at different points in history will be addressed. This approach aligns with gender archaeology, by highlighting the non-normative characteristics of military identity within a gender identity context (cf. Knapp 1998b, Hearn and Collinson 1994, Morgan 1994, Higate 2003a). I will argue that an appreciation of expected gender roles within the Roman world provides a necessary context to our understanding of Roman military communities. The discussion begins with an examination of idealised, privileged Roman male behaviour, and how this was related to the identity of the soldier. It then moves on to address the identity of those who did not (or could not) meet these expectations, on the basis of rank, social status or sex, and asks how these distinctions manifested themselves within the Roman military community.

2.2.1 *Military Masculinities:* Virtus, Disciplina, *and the soldier.*

> 'Of all the sites where masculinities are constructed, reproduced, and deployed, those associated with war and the military are some of the most direct. Despite far-reaching political, social, and technological changes, the warrior still seems to be a key symbol of masculinity.'

> (Morgan 1994:165)

> 'Military masculinity has less to do with men's essential characteristics than it does with the characteristics and assigned meanings of the different world – the military world – that soldiers inhabit.'

> (Kovitz 2003:9-10)

The role of the soldier, with its implicit mastery of violence, has traditionally been correlated with masculine identity (Higate 2003a:*xvii*, Morgan, above). The association arises from intrinsic qualities attributed to masculinity, including strength and athleticism as well as cultural understandings of how men are expected to behave (Newsome 2007:121-3, 135, Higate 2003a). Such dialogues are based around forms of power, physical and social, that divide the relative statuses of men and women within a society (cf. Knapp 1998b:96-7). Men are positioned as superior in both physical and moral strength, justifying a correspondingly higher social position than women; the importance of militaries to modern states has supported that paradigm across societies (Kovitz 2003:2). Women are therefore also traditionally excluded from military identity; where they adopt martial attributes, they are also viewed as becoming masculine (Alston 1998:205; the role of women in military communities is addressed below).

Military masculinities are nonetheless complex and multifaceted. Gender theory has been comparatively late in addressing this issue; within the field the 'male warrior' was viewed in absolute terms, as an object rather than the subject of discussion (Higate 2003b: *xvii*). The increasing participation of women in military service has led to the characteristics required for military service being called into question (e.g. Kovitz 2003, Newsome 2007:135; cf. Henrikson 2007). This debate has highlighted the problematic nature of masculinity within military organisations and encouraged critical discussion of the construction of military identity. Issues confronted include the construction of different forms of military masculinity, the divide between the military and civilian worlds, and the impact of military

life on female family members and other dependants of soldiers (cf. Enloe 1988, Morgan 1994, Higate 2003, see Kovitz, above). Gender is therefore a key consideration within the context of Roman military communities. In the following section Roman expectations of appropriate military-masculine behaviour are outlined.

2.2.2. *Roman military masculinity*

Masculinity within the Roman world was intertwined with discussion of Rome at war by means of the relationship between the moral values and practices of *disciplina* and *virtus* (cf. Alston 1998, Lendon 2005, Phang 2008). These concepts are rooted in urban Roman society rather than the provincial periphery, but they are helpful in understanding the context of both military identities and familial relationships in a Roman context during the Principate, and subsequently applied within a non-citizen auxiliary context.

> …for the name "virtue" comes from *vir*, a man, and courage is the peculiar distinction of a man: and this virtue has two principal duties, to despise death and pain. We must, then, exert these, if we would be men of virtue, or, rather, if we would be men, because virtue (*virtus*) takes its very name from *vir*, man.
>
> (Cicero, *Tusculan Disputations* 2.18)

Virtus ('manliness') was the defining characteristic of the ideal Roman man; Cicero's rhetoric was rooted in an etymological connection to *vir*, the ideal adult male, in opposition to *homo* which referred to humankind in general (Jantzen 2004:268-9). *Virtus* was an implicit trait that had to be demonstrated through the active use of power, including (although not limited to) leadership and bravery in battle (cf. Alston 1998:206, Lendon 2005:208, Harris 2006:303, Phang 2008:6). However, the term could not be straightforwardly applied to all soldiers. *Vir*, particularly during the Republic, was an idealised form of masculinity in which an individual was not only free from external stresses such as debt, slavery, or political subjugation, but was also able to exert control over others (from military command to legitimised violence). The *vir* was autonomous, self-sufficient, and inviolable (Jantzen 2004:269). Within Roman law, the *paterfamilias* or male head of the Roman household held such control over his *familia* (his wife, children, slaves and freedmen) but the term was also used in praise of notable Republican political leaders and ultimately of the Emperors of the Principate (Alston 1998:207).

Fundamentally, the *vir* was a man who was 'active' in every context of Roman cultural life, from the battlefield to the family home, and who demonstrated this through domination of his inferiors: through the use of weapons (especially the *gladius*) against his enemies, and his sexuality against women (Jantzen 2004:170; rape too was a potent weapon of war: cf. James 2012:18, Ziolkowski 1993, Whittaker 2004:117-122, 129). Roman freeborn men were free to have sex with both women and men, so long as they were legally subject to him (i.e. wives and slaves) and the *vir* played an active rather than passive role (Hallett and Skinner 1997, Jantzen 2004:270, Whittaker 2004:135). To be penetrated in sexual intercourse was shameful for the *vir*, as it associated him with the 'feminine, the servile, [and] the sexually passive' (2004:270). In male-dominated Rome (and literature) such transgressions were judged as *mollitia*, or effeminacy (Edwards 1993:68-97). Cicero frequently applied the term to Mark Antony (*Philippics* 2.44-5, 2.55) and Catiline (*In Catilinam* 2.4, 8) amongst others (cf. Edwards 1993:64, note 2), but in doing so was highlighting not so much their perceived feminine traits as their failure, in the interests of the Republic, to adopt suitably masculine ones.

The *vir* was poorly represented within Roman military service; the dependence of common soldiers on their commanding officers for economic survival was, from the second century B.C. onwards, indicative of an inability to achieve the status of *vir*. As Alston summarised: '[i]n spite of the crucial role of military success in generating the prosperity and power of members of the elite, the soldiers did not conform to ideals of manhood' (1998:211). Within the Augustan period, the institutionalisation of the military and the emergence of terms of service of twenty years or more led to the separation of the soldiers from Roman civilian society. Recruits left the *potestas* (power) of their fathers for the *potestas* of their commanding officers; their inability to form legal marriages curtailed their ability to gain *potestas* of their own (Alston 1998:212; until A.D. 197, towards the end of our period). As was discussed above, this distanciation between the military and the Roman family is a mechanism of the 'greedy institution'; recruits renounced their position within one familial hierarchy for another.

As the aristocracy of Rome was integrated into the *cursus honorum,* the social gulf between the soldiers and their commanding officer correspondingly widened (1998:212; see Appendix **I**). The aristocracy did not escape these tensions; in an increasingly autocratic Principate, a new conceptualisation of the *vir* was required (1998:215). Concern over the loss of *libertas* (freedom) of the aristocracy was expressed by Tacitus, who repositioned the *vir* as 'between

insubordination and servility'; free expression had to become internalised; especially when the spies of tyrants caught any loose tongue (1998:215; cf. Tacitus *Annals* 3.65. 4.20, 6.10, Pliny *Letters* 1.12.7-8).

The change in focus of *potestas* towards the individual saw an increase in attention paid by the Roman elite towards mastery of the body and of the mind, through athletic training and philosophy (Alston 1998:215-6). Stoic philosophy was particularly influential. Founded in Athens in the early third century B.C., the school of Stoicism (described by Cicero in the first century B.C., and championed by Seneca and Musonius Rufus in the first century A.D. and Epictetus in the second century A.D.) promoted modesty, austerity, and submission to fate (Sellars 2006:2). Stoicism is often regarded today as the attainment of a rational, emotionless mind, which enabled an individual to ignore distractions and physical pain, and accept collective, ideological goals over personal, selfish needs. The advantages of such a mindset to a soldier are clear, and this (simplified) understanding of Stoicism has been embraced by military lecturers (e.g. Stockdale 2001, 2002, French 2005, Sherman 2006; but cf. Biondi 2007, Bertram 2007).

Care must be taken not to read too much of the ideology of the elite into the lived experience of the common soldiers, especially for the *auxilia*. True economic and social freedom, of the kind Stoics aspired to, was the reserve of the independently wealthy aristocracy. This was demonstrated when Musonius Rufus extolled Stoic virtues to the legionaries of Vespasian encroaching upon Rome in A.D. 69, and was met with ridicule and threats of violence (Tacitus *Histories* 3.81). The common soldiers of the early Empire were perceived by classical writers as a threatening force, possessing the power but lacking the self-control of *virtus* (cf. James 2011). The characterisation of the community of the soldiers given in Juvenal's *Satires* 16 is just one example of the threat perceived by Roman civilian men (e.g. Apuleius *Metamorphoses* 9.39-42, Petronius *Satyricon* 62, 82, Alston 1998:217; but cf. Dio Chrysostom *Discourses* 12.16-20). In the second century A.D., this situation was exacerbated by the growing geographical and cultural divides between Roman elites and the troops they commanded as officers. As Alston describes, '[t]he troops were a remote and threatening group. They were seen as cultural and moral inferiors, one step above the barbarians, and antithetical to the aristocratic *virtus*' (1998:217). The threat of civil war and insubordination against their social superiors by this male collective was considered ubiquitous (Phang 2008:76). This was managed through military discipline.

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2.2.3. *Honour, reward and punishment in the Roman military.*

Roman military discipline was sustained through a system of reward and punishment that served to elevate the soldier from his original social position and instil within him a sense of place within the military hierarchy. The rewards of military service were significant; soldiers in the Principate received a steady income (see **I.2**), as well as access to medical care, an active lifestyle and an adequate diet, which ensured they enjoyed a good state of health (Phang 2007:19; see **5.5.3**). Beyond the requirement of freeborn status, auxiliary soldiers could be recruited from any background; the guaranteed income was especially significant for those from impoverished origins (2007:19). The soldiers enjoyed legal rights that exceeded those of civilians, including the right to name their own heirs, which further separated them from their families and the laws of inheritance of their homelands (Haynes 2013:304); this was a process by which the 'greedy institution' of the Roman military ensured the loyalty of its members. Perhaps even more pertinently to those they interacted with outside the military hierarchy, soldiers also benefitted from exemption from corporal punishment, and the right to a military rather than civil trial (2007:19; cf. Juvenal *Satires* 16).

Soldiers participated in the festivals of the Roman religious calendar (as evidenced by the *Feriale Duranum*; Fink *et al* 1940), although furlough (*commeatus*) was only exceptionally granted, and may have required bribes to attain (Southern 2007:149; cf. Tacitus *Annals* 1.17, *Histories* 1.46; *Tab. Vindol.* II 166-77). Awards for acts of bravery in battle also boosted morale; these took the form of torcs, bracelets, necklaces and crowns (e.g. *ILS* 2313, 2637, 2656, 2658, 2661; Suetonius *Augustus* 25.3; Maxfield 1981, Campbell 1994:49; these were also portable wealth). With such incentives the power of the emperor was preserved; hence the alleged final words of Septimus Severus to his sons in York in A.D. 211:

> 'Be harmonious, enrich the soldiers, and scorn all other men.'

> (Cassius Dio, *Roman Histories* 77.15)

To be seen as the sponsor of the soldiers was vital to maintaining the loyalty of the troops, but bribery alone could not command respect (Phang 2007:153-200). Rewards did not guarantee discipline, and a system of punishments was necessary alongside them. These too had a public element. The threats posed by the troops were multiple: soldiers could desert, commit petty crimes and other acts of sedition and subordination, or *in extremis*, mutiny against their general (James 2011:174; mutinies: Tacitus *Annals* 1.16-30, 1.31-49; Williams

1997, cf. Messer 1920). Other crimes included negligence or loss of equipment, especially weapons; Polybius described soldiers plunging unarmed into battle to retrieve lost swords (6.37); the Neronian general Domitius Corbulo, according to Tacitus, had two soldiers executed for removing their weapons to dig a ditch (*Annals* 11.18). These anecdotes also demonstrate the importance to soldiers of careful curation of the weapons themselves – this is an important factor when considering Roman weaponry recovered archaeologically.

Punishment within the Roman military had a tradition of brutality. Decimation, by which each tenth man (chosen by lot) was clubbed to death by his comrades, is particularly notorious, although it had become outdated by the first century A.D. (Polybius *Histories* 3.39, 6.38, Livy *History of Rome* 2.59, Plutarch *Antony* 39; Phang 2008:111-51). Other punishments included *fustuarium* (the clubbing to death of a single soldier), fines, extra fatigues, demotion, and inferior rations: barley rather than wheat (Southern 2007:147, Campbell 1984:300-14, Watson 1981; cf. Bennett 2005:176). Inherent to these punishments was the element of public humiliation, as soldiers were wounded, starved, fatigued or otherwise shamed before their peers, such as being forced to remove the distinctive military belt (*balteus* or cingulum; cf. Suetonius *Augustus* 24, Southern 2007:147).

Public punishments affected the soldiers as a collective body. As the infractions of one small subsection were made public, the bonds between the soldiers who had displayed an appropriate *praxis* in the context of military society were strengthened. Crimes of desertion or negligence were moral failures on the part of the perpetrators that endangered the military community as a whole. Where punishments were intended to humiliate rather than physically incapacitate, they could encourage a collective spirit of defiance that further strengthened communal bonds whilst discouraging future transgressions (a process implemented within modern military training; Holmes 2004:57). These shared experiences strengthened the military community when they could be seen as affecting a collective identity, therefore. However, they could also become a focus for rebellion, an example being the centurion Lucilius, nicknamed *cedo alteram* ('bring me another') due to his habit of breaking his vine staff whilst inflicting punishments, who was murdered by mutineers during the revolt of the Pannonian legions in A.D.14 (Tacitus *Annals* 1.23; the centurion Sirpicus ('tightly bound') was also threatened; his name might indicate he too was a martinet; cf. Horsfall 2003:113). Reward and punishment were crude control mechanisms. Expected behaviour in the military was also inculcated through collective training and exposure to propaganda that established the *disciplina militaris* (Phang 2008). In the next section, these processes are discussed.

2.2.4. Training the Roman military male: recruitment, labor *and castrametation*

> 'We find that the Romans owed the conquest of the world to no other cause than continual
> military training, exact observance of discipline in their camps and unwearied cultivation of
> the other arts of war…They thoroughly understood the importance of hardening them by
> continual practice, and of training them to every manoeuvre that might happen in the line and
> in action. Nor were they less strict in punishing idleness and sloth. The courage of a soldier is
> heightened by his knowledge of his profession, and he only wants an opportunity to execute
> what he is convinced he has been perfectly taught. A handful of men, inured to war, proceed
> to certain victory, while on the contrary numerous armies of raw and undisciplined troops are
> but multitudes of men dragged to slaughter.'
> (Vegetius, *Epitoma Rei Militaris* 1.1)

> 'Pyrrhus is said to have remarked to his recruiting officer: "You pick out the big men! I'll
> make them brave."'
> (Frontinus, *Strategems* 4.1.3)

Disciplina militaris related to broader issues of masculinity and social control, as these quotes
imply (cf. Phang 2008:1). It was a curb on the supposedly intrinsic aggressive traits of the
soldiers, intended to promote lifestyles closer to the Stoic ideals of the Roman *viri*, as seen in
the handbooks of Frontinus and Vegetius (French 2005:64, Phang 2008:6-7). *Disciplina*
within battles was important in ensuring orders were followed (cf. Lee 1996, Lendon 2005),
but it also ensured that *virtus* could be established and demonstrated by adherence in contexts
other than combat. By displaying mastery of *disciplina militaris* in a range of peace-time
activities, the soldier could achieve manliness within the boundaries accepted by the Roman
aristocracy (Phang 2008:6, cf. *SHA* 10.2-8, 11.1). The inculcation of these extrinsic values
was a central aspect of life in the Roman military, beginning with recruitment and continuing
throughout their careers.

Our clearest description of recruitment is provided by Vegetius. Although his *Epitoma rei
militaris* dates to the fifth century A.D. and describes an idealised historic form of military
organisation ('utterly anachronistic and doomed to fail' in his period; Baatz 2000:149), the
emphasis he places upon idealised intrinsic masculine traits reflects their significance:

> 'Those employed to superintend new levies should be particularly careful in examining the
> features of their faces, their eyes, and the make of their limbs, to enable them to form a true
> judgment and choose such as are most likely to prove good soldiers. For experience assures us

that there are in men, as well as in horses and dogs, certain signs by which their virtues may be discovered. The young soldier, therefore, ought to have a lively eye, should carry his head erect, his chest should be broad, his shoulders muscular and brawny, his fingers long, his arms strong, his waist small, his shape easy, his legs and feet rather nervous than fleshy. When all these marks are found in a recruit, a little height may be dispensed with, since it is of much more importance that a soldier should be strong than tall.'

(Vegetius 1.6)

In this outline of desired intrinsic physical traits, there are practical elements – the ancient soldier's weapons relied on strength, and he had his marching pack to carry – but also dehumanisation, with the recruit judged by the same criteria as animals (cf. dogs: Arrian *On Hunting* 4, Xenophon *On Hunting* 3-4; horses: Virgil *Georgics* 3.74-90, Columella *De Re Rustica* 29.1-4). Prescribed gender roles within the Roman world with regard to professional labour entailed similar selectivity:

'In choosing recruits regard should be given to their trade. Fishermen, fowlers, confectioners, weavers, and in *general all whose professions more properly belong to women should, in my opinion, by no means be admitted into the service.* On the contrary, smiths, carpenters, butchers, and huntsmen are the most proper to be taken into it. On the careful choice of soldiers depends the welfare of the Republic, and the very essence of the Roman Empire and its power is so inseparably connected with this charge, that it is of the highest importance not to be intrusted indiscriminately, but only to persons whose fidelity can be relied on.'

(Vegetius 1.7; emphasis mine).

The moral qualities of particular civilian trades were recognised by Vegetius; the key requisite being that they were suitably masculine (Phang 2008:77-8). These were also skills and crafts that were essential within fort life, in the provision of food, tools and weaponry to the fort community (the practice of these crafts within the auxiliary fort community is returned to in chapter five.). Roman craftsmen were often highly skilled but their social status was not commensurate with that of their products. Smiths and carpenters (and by extension those for whom they produced tools and workplaces, such as potters, tanners, armourers, etc.) worked within the mundane physical domain of trade and paid labour, rather than the mental domain of the philosopher or poet that was held in higher esteem by the aristocracy (Burford 1972:207).

However, the reality of recruitment for the Roman military meant these were aspirational ideals; many recruits had failed in the civilian world and turned to the military as a last resort (Goldsworthy 1996:252; cf. Tacitus *Annals* 4.4). With such a broad range of backgrounds, expecting any degree of uniformity of identity amongst recruits was inappropriate. Accordingly, the inculcation of *virtus* and *disciplina* began in the process of training (Phang 2008:37). Although this process was not a clearly demarcated period within the career of a Roman soldier, this stage is widely recognised as being a crucial process in the establishment of military identities in modern armed forces (e.g. Morgan 1994:167, Hockey 2003, Woodward 2003, Holmes 2004:32, Newsome 2007:7). Training and military exercises would be an important part of the soldier's life throughout his career.

In contrast to Renaissance military manuals, the collective aspects of training are little emphasised in ancient sources. Vegetius discusses training in the military step, but the exercises he prescribes are described as if undertaken by individuals rather than groups (Phang 2008:50, Vegetius 1.8-9 - although they were expected to remain in ranks; 2.23). The claim that Roman soldiers marched in a synchronised step, foreshadowing the seventeenth century drill square, has been enduring (cf. Goldsworthy 1996:5-6, 251; Lendon 2005:170; Keegan 1976:62-3) but does not reflect the primary concerns of Roman writers; it was more important that soldiers had space to use their weapons (Phang 2008:51-2, 64, Goldsworthy 1996:209). Collective training imbued soldiers with the strength and motivation (*virtus*) to charge a foe, and the discipline to keep such exertions to a manageable level, unlike the barbarian enemies of Rome who launched powerful, unsustainable attacks (Phang 2008:52; cf. Tacitus *Germania* 30).

Rather than drill, Phang argued that castrametation – the construction of camps (*castra*) - was paramount in instilling discipline (2008:70). The camp (discussed further in **4.2.1-5**) had both practical and psychological functions; it protected and ordered the troops within, and served as a disciplinary space that clearly demarcated the military domain (Phang 2008:68-9; cf. Gardner 2007a:211, James 2011:171-4). Putting Roman soldiers to work (*labor*) in such a fashion was a form of *disciplina* that instilled them with an honourable *virtus*, whilst (quite literally) entrenching the hierarchy of the military; the rank and file soldiers sweated together as the centurions directed the work, reflecting the order of the battlefield (Phang 2008:70, 201-2).

The role of material culture in establishing an appropriately military *virtus* is also expressed though the concept of *labor*. The Romans did not treat clothing as objects of discipline in the manner of modern military dress uniforms (2008:82). That role was given to arms and armour; the careful maintenance and display of these during battles and formal occasions could be powerful psychological aids to the soldier (2008:84; cf. Josephus *Jewish Wars* 5.351, Vegetius 2.14.8). Even out of armour, the soldier could be identified by his bearing of four key symbols of military identity in the Roman world: the sword and sword belt, the dagger, and the hobnailed military boots (2008:84-5). The use of material culture within the military is analysed in chapter five, but it is important here to highlight the close connection between the wearing of armour, an arduous task that reflected the constant mental and physical struggle against penetration by a physical or moral attack, and Roman military masculinity (2008:100-1). The wearing of armour, and bearing the weight of other equipment was thus an essential component of Stoic *virtus* (2008:106, 217). The threat of penetration extended into other aspects of masculine identity, especially sexuality. In the Graeco-Roman world, to conform to masculine identity a man had to take the active role, as the passive was reserved for women, prostitutes, or slaves – none of which were appropriate roles for a soldier (Phang 2008:93). Masculinity could be maintained by avoiding the passive sexual role, but the threat of effeminacy through other means – pursuing luxuries, or effeminate dress or comportment – also contradicted the Stoic ideal of disciplined austerity (2008:95).

In addressing the 'masculine' aggressive use of weaponry, it is worth noting the emphasis Vegetius gave to close combat and killing blows (1.11.3-7, 1.12.1-4, 1.14.1-2, 2.23.5-6, 3.4.4). Goldsworthy referenced Marshall's '25 per cent firers' to explain the differing sword wounds inflicted on skulls found at Maiden Castle (Goldsworthy 1996:221; battle of Wisby victims: Thordeman 1939, Wheeler 1943). He argued that these '25 per centers' deliberately exposed themselves to danger in order to inflict killing blows (or aim projectile weapons with lethal intent), whilst the remainder fought defensively, inflicting cuts rather than stabs (1996:188, 221). It is an oversimplification to apply that figure directly to ancient soldiers who lived and fought in a very different manner to those of the twentieth century (cf. Melchior 2011), but psychological barriers against killing may have been overcome in this way; Roman commanders recognised the vulnerability of an army that did not maintain the edge in aggression (Phang 2008:43; Goldsworthy 1996:227).

Through physical training and integration into a socially and culturally isolated institution, the soldier entered a community that defined itself by terms of male prowess (cf. Morgan 1994). This was also the process by which a new recruit entered into the primary group of the unit within which he would likely spend the rest of his military career, if not his life. The privations of military discipline and *labor* served to bond him to his *commilitones* – in particular to his *contubernales*, the 'primary group' on whom he would come to rely for personal support (see above: Holmes 2004:47, 293; for the 'tent group' in history see Duffy 1987:131). The inculcation of the military *habitus* (Bourdieu 1977; Alston 1998:220) was the end result of this process, and saw the new recruit adopt the physical bearing and social characteristics of the soldier, a topic returned to in chapter three.

2.3.1. *Rear Echelon* Muliones *and Families?*

It was not only in training and drill that the Roman military differed from modern armies. No soldiers were excluded from combat duties, so the tensions present between frontline troops and the 'rear echelon' (service personnel concerned with logistics and administration) in modern militaries would have been largely absent. Only the Praetorians in Rome were perceived to avoid warfare and enjoy unseemly luxuries (Phang 2008:45-6). However, discussion of the inhabitants of the fort communities must extend beyond the soldiers and acknowledge the role of non-soldiers; those outside the 'greedy institution' of the military but who were nonetheless subject to the restrictions imposed by that way of life, and whose needs and requirements in turn vied for the attention and loyalty of the soldiers themselves. These included the families of the soldiers (wives, children, and potentially other relatives), the slaves and servants of the unit and of those who could afford them, and the shopkeepers and other service providers of the *vicus* (there may have been overlap between these categories - a position veterans were likely to occupy).

This group played an essential role in the running of the fort which is often overlooked. In the context of military identity, these non-combatant, non-military-male members of the community will also have provided a necessary ideological contrast to the idealised masculine traits of the soldiers. They present an alternative perspective on military life, one against which an apparently aggressive, confrontational, empowered soldier could contrast himself (for multiple masculinities associated with combat and support roles in modern militaries: Morgan 1994, Hockey 2003, Higate 2003c, Regan de Bere 2003).

2.3.2. Uxores, coniuges, *and* libertae*: the women of the army*

The role of military wives within Roman military communities has only recently been critically addressed (e.g. Driel-Murray 1995a, 1997, 2003, 2008, Allason-Jones 1999c, 2003, Phang 2001, 2002, Baker 2003, Whittaker 2004:115-143, Allison 2006b, 2008b, Brandl 2008a, Greene 2011). Until A.D. 197 soldiers below officer rank were prohibited from full legal marriage (Phang 2002:353). Scholars have traditionally attributed this law to factors of cost, accommodation, or because women were seen as a burden or distraction for the men (Phang 2002:358; cf. Watson 1969:188, Campbell 1994:152, Allason Jones 1999:47, Enloe 2000a, Brandl 2008a). However, women could bring dowries into marriage and retain their own property, so this economic burden may be overstated; this was primarily a cultural bias against the presence of women in what was for the Romans a highly masculine arena (Phang 2002:358-9). In any case, the marriage ban applied only to official marriages. Phang drew upon documentary evidence for marriage in the Roman military to argue that up to half of all auxiliary soldiers in the second century formed unofficial partnerships that were *de facto*, if not *de jure*, marriages (2001, 2002:361). These concubinages were typically formed late in a soldier's career, following ten to fifteen years of service (2002:366; tombstones dedicated by spouses: *RIB* I.160, 1667, 2115). The unofficial bonds and families referred to within auxiliary diplomas and funerary inscriptions are evidence that these endured within military communities. The lives of military wives were directly connected to their partner's institutionalised identity; as well as being required to relocate with soldiers between provinces, they would have relied upon the fort community for work and protection – this reliance could make their positions especially precarious if their partner predeceased them (cf. Allason-Jones 1999c:42-3, Brandl 2008b:59, Greene 2011). As discussed above, entering such a system required sacrifices on the part of the women, although the financially secure position of the older soldiers may have proven invaluable (Phang 2001:34-5; modern military wives are expected, within the military community, to prioritise their husbands' professional duties over their personal freedoms: cf. Segal 1986:22, Enloe 2000a:162-5, Regan de Bere 2003:98-100).

In the past, women in Roman military contexts have been dismissed as camp followers or 'unofficial' wives at best – a trend amongst historians that can be traced back to eighteenth- and nineteenth-century attitudes towards how soldiers should act, with women as a tolerated inconvenience rather than integrated into military life (Duffy 1987: 127, Enloe 1988, Hacker 1981, Phang 2002:367, Greene 2011:3; Southern's brief overview of women in the Roman

military is typical; 2007:144-5; cf. Scott 1995). However, with growing recognition that women within contemporary military communities both existed and are worthy of study, it has become clear that not only were the roles of women in these communities neither passive nor unproblematic, but that they may also have been instrumental in the establishment of male military identities.

Studies of gender relations in modern military contexts have demonstrated the difficulties an institutional martial lifestyle can bring to a relationship. The formation of exclusively male intra-organisational primary groups by necessity required the exclusion of those who did not meet the requirements for entry into this group, and the wives of soldiers have often suffered the consequences (cf. the high rates of domestic abuse in some modern militaries: Harrison 2003:79-80, Harrison and Laliberté 2008). By emphasising non-'female' behaviour, the hypermasculine male displaced his own concerns over his own position of reduced power, as the soldier's institutionalisation ensured he was confined to a position of subservience and dependence within the military hierarchy (Harrison 2003:85, Enloe 1988:13, Phang 2003). The extent to which this parallel holds true in the Roman world is unknown; Phang believed it unlikely that domestic abuse in the families of soldiers would go unnoticed in the civilian settlements of the legions (2001:35) but as Harrison has argued, military authorities often deliberately overlook domestic problems (2003:80-81; cf. Enloe 2000b:191). Reconsidering the soldiers of Juvenal's *Satires* 16 from the perspective of those within the fort community may suggest it was not only he who had reason to fear the closed ranks of the command hierarchy.

It should now be accepted that the presence of women in the context of the Roman military would have been normalised to a greater degree than has traditionally been believed. All Roman soldiers had mothers, many had sisters, and many formed personal bonds with women who had pre-existing links to the military, either because they were related to veterans (Brandl 2008b) or because they provided one of the many necessary support roles, as slaves or as independent sutlers and traders (cf. Still 2008; see below). The daughters of soldiers also had to find a place within this system, although those with Roman citizenship (being born after their father had finished military service) were in a more advantageous position (Wells 1997:574). The primary evidence for military wives on the northern frontier of Britain is epigraphical, but we also know something of their social lives from their personnel correspondence (see **3.2.3**).

2.3.3. *Military servants and slaves*

The Roman military did not prioritise logistical support within the ranks; instead it utilised civilian non-combatants to handle these requirements. These can be divided into three categories: the *mercatores* and *negotiatores*, who were traders in services and commodities; *calones*, the slaves of the troops, owned privately or collectively; and *lixae*, usually described as 'sutlers' or 'camp followers' (cf. Speidel 1989a, Roth 2002, Vishnia 2002). The *calones* and *lixae* had a stronger attachment to a military unit than the independent freeborn *negotiatores,* but all associated directly with soldiers (and their families), shared a working environment (and perhaps a living environment) and were economically reliant upon soldiers. In turn, soldiers benefitted from the services the *calones* and *lixae* provided.

The importance of these non-combatants is often underacknowledged (cf. Vishnia 2002:265, n.4), particularly when it comes to locating them within the static fort community, in spite of their apparently significant number. Speidel argued that the majority of Roman infantry soldiers, including auxiliaries, may be expected to have had personal slaves (1989:240-2). When mobilised *en masse*, these groups could form substantial groups. The sixty thousand-strong army of Vitellius was outnumbered by its *calones* in A.D. 69 (Tacitus *Histories* 2.87), and a Flavian force of forty thousand was reportedly accompanied by an equivalent number of *calones* and *lixae* (*Histories* 3.33; Speidel 1989:39, Vishnia 2002:268). These numbers may be exaggerated (cf. Roth 2002:113) but as Tacitus was describing armies witnessed by his older contemporaries, the large numbers described must reflect reality to some degree. Roth argued for a ratio of 4:1 of soldiers to non-combatant *calones/lixae* during the Principate, equating to 120 for the auxiliary quingenary infantry cohort (2002:114). This also ensured that a century consisted of a hundred men, and the quingenary auxiliary cohort of 600. For cavalry the situation is more complicated; Speidel argued that each cavalryman had a groom (1989:240), whilst Roth argued this ceased after the Republican period, during which allied cavalry were Gallic nobility (2002:115). However the higher pay and grain ration of cavalrymen compared to auxiliary infantrymen in the Imperial period (see Appendix **I**) probably indicates an allowance for a servant alongside their mounts (see **4.4.7**).

Describing the roles, duties and numbers of the *calones* and *lixae* is problematic, due to the lack of consistency in the literary sources (Vishnia 2002:265). The *lixae* are varyingly described as slaves, freeborn, independent traders and personal servants (2002:267; cf. Roth 2002:93-101), and *calones* and *lixae* are also frequently grouped together as *apparitores* or

'servicemen', furthering the confusion (Roth 2002:92; e.g. Livy 23.16.8, 40.28.3, Tacitus *Histories* 1.49, 3.20). Most accounts describe their activities during campaigns, where the duties of *calones* included guarding the baggage train (e.g. Josephus *Jewish Wars* 3.125; Speidel 1989:239). *Lixae* foraged for foodstuffs from farmland or private residences (Vishnia 2002:269-71), from which they may have received their association with the role of sutler. The *lixae* were apparently freeborn and distinguished from slaves in legal texts, but nonetheless of extremely low status (2002:267). The position of the *calones* was worse if their identification as slaves is accepted, and it is likely that they performed menial tasks such as cooking, cleaning and fetching food and water for the soldier or unit they belonged to (Speidel 1989:242-3, Roth 2002:101-2). That *calones* had serious responsibilities however is shown in the fact that *in extremis*, they fought to defend the camp and baggage train (e.g. Caesar *Gallic War* 2.24-7, 6.39-40); they also trained alongside soldiers (Josephus *Jewish Wars* 3.69). The servants of horsemen bore their weapons in battle and required protection in the form of armour and a shield; to distinguish them from soldiers they lacked only the military belt and sword (Speidel 1989:244). A paramilitary element may also be indicated by the *galearii*, military servants who wore a helmet (*galea*) and commanded the slaves guiding the baggage train (Vegetius 3.6; Speidel 1989:244-5, Roth 2002:108). These were grouped into *vexilla* or *numeri* – terms also applied to subgroups of soldiers (Roth 2002:114-5). The close associations between *calones* and *lixae* in the sources indicate the subservience of the former to the latter (Vishnia 2002:167).

The non-combatants are background figures in general texts on the Roman military (e.g. Goldsworthy 2003), and the implicit involvement of military servants within the fort community is insufficiently appreciated. Establishing the nature of the social involvement of the families and servants of soldiers within the military community remains a key challenge for archaeologists, and this thesis will utilise developments made in this area in the reanalysis of auxiliary communities in subsequent chapters. Textual sources provide a direct indication of their presence, whilst material culture can indicate how they performed particular identities.

Although the literary evidence for the *calones* and *lixae* is presented in the context of campaigns, they would also have been a part of everyday life in the fort community, leaving behind archaeological traces of their presence. The relative population was likely higher in such peaceful contexts as well, as commanders sought to reduce the number of extraneous mouths to feed during campaigns (Speidel 1989:239, Roth 2002:104). Non-combatant

servants and traders were important to the troops in many ways. Aside from menial tasks, *lixae* could provide material and social benefits in the form of a more varied diet (where they served as sutlers) and other entertainment. The servants of auxiliaries may have accompanied them from their homeland, bringing with them their shared martial experience (important for cavalrymen; Speidel 1989:246). The continuation of personal connections ensured that their welfare was taken seriously; through these, the soldiers were connected to a non-military, potentially non-Roman cultural context and ethnic background. Although the wives of Roman soldiers were excluded from official roles within the military, they too could have travelled with them from their homeland to their eventual garrison, in the process sustaining a strong ethnic identity (Driel-Murray 1997, Haynes 1999:167).

This last element of identity is crucial to understanding the status of the auxiliary soldiers in Roman society, as a distinct subgroup within the military that was identified by non-Roman ethnic identity. In the next section, the connections between ethnic, imperial and military identities are addressed.

2.4.1. *Ethnic identity and the auxiliaries*

Auxiliary soldiers comprised over half of the Roman military, but until the edict of Caracalla in A.D. 212 they did not share the legal status of Roman citizenship with their legionary counterparts (Haynes 1999b:165-6, Cosme 2008:93). The different cultural traditions that recruits brought into military service were their most significant intrinsic traits, rooted in their ethnic, cultural and religious backgrounds. The peregrine status and diverse ethnic backgrounds of the auxiliaries therefore posed a series of challenges for the military which sought to incorporate them. Their position enabled them to maintain a complex series of overlapping identities and traditions which challenge our traditional image of a homogeneous military unit, governed by common principles and ideals (Haynes 1993, 1999b).

In this section, I analyse the interaction between Rome and the *peregrini* population of the frontiers in the context of post-colonial discourse regarding Rome's relationship with the 'barbarians' on the edge of the Empire. The ethnographic concept of 'ethnic soldiers', in which a population is attributed with martial characteristics that make it especially suitable for military roles, is also addressed (Enloe 1980; the term 'martial race' has also been applied by anthropologists to these groups). These descriptions essentialise ethnic characteristics and create an enclosed system through which certain tribal groups are exploited for recruitment to the extent that militarism becomes normalised within that society. That these groups were

then typically moved away from their place of origin and required to serve amongst a population that was not their own is also indicative of the behaviour associated with a 'greedy institution'; it is argued that ethnicity was utilised in this context as a means of strengthening internal group identities whilst isolating the soldiers (and their dependants) from the surrounding civilian population, both physically and culturally (cf. Coser 1974:9-11).

It is important to define what is meant by 'ethnic identity' in this context before moving on to the debate within postcolonial studies over how colonised populations identify themselves in relation to an imperial power. Ethnicity can be broadly defined as a collective identity based upon shared lineage, geographical origins, and culture (ranging from the social use of material culture to common languages, religious practices and economy). In the modern world, ethnic identities correlate strongly to nationalist identities, and as such have often been presented as unchanging and essential within a given population, as a means of permanently differentiating them from other groups (cf. Anderson 2006:6). It is however a socially constructed form of identity that is highly dependent upon context, and following Sian Jones' landmark study of the archaeology of ethnicity (1997), it is increasingly recognised that applying such labels directly to the Roman world is problematic (cf. Pollard 2000:252, Gardner 2007a:236, Mattingly 2011:209, Haynes 2013:7).

Ethnic identity relies especially upon a shared recognition of tradition and the inculcation of an understanding of the correct way of doings this within a community; in other words, the communication of *habitus* between group members. Bourdieu defined *habitus* as the 'durable dispositions' towards modes of practise and perceptions that are embedded into a person's sense of identity early in life; these transfer between situations but are structured in context of past experiences (1977:72, 78-93, Jones 1997:88-9). For Bentley, subliminal aspects of *habitus* provide the basis for continuity and reproduction of collective identity upon which ethnicity relies:

> 'It is commonality of experience and of the preconscious *habitus* it generates that gives members of an ethnic cohort their sense of being both familiar and familial to each other.'
>
> (1987:32-3)

Along with the recognition of shared communal identity, the consciousness of difference in relation to other groups is important (Jones 1997:94). In isolation, the different life experiences (i.e. *habitus*) of group members should have undermined ethnic solidarity

(Bentley 1987:40-1, Yelvington 1991:158-60, Jones 1997:93). In a daily context, it would be more accurate to argue:

> 'Ethnicity is not a direct reflection of the *habitus,* or of culture. The construction of ethnicity, and the objectification of cultural difference that this entails, is a product of the intersection of people's habitual dispositions with the concrete social conditions characterising any given historical situation.'

(Jones 1997:120)

As with other aspects of identity, ethnicity is complex: rooted in tradition (the primordialist view) but also fluid, expressed in different forms depending on context (the discrepant, instrumentalist perspective; cf. Roymans 2004:2, Mattingly 2004, 2006). It is essentially discursive, although the details of this discourse are rarely apparent. As Roymans has argued:

> '[W]e can define ethnicity as the temporary resultant of a process of developing collective self-images, attitudes and conduct that takes place in a context of interaction between those directly involved and outsiders. Ethnic identities are by definition subjective, dynamic and situational constructs, which renders their relationship to material culture problematical. In contrast to many other kinds of cultural identity, they are in principle archaeologically intangible, unless combined with contextual historical data.'

(2004:2)

The discursive nature of ethnicity has led some to claim that ethnicity, as a social construct, lies beyond archaeological investigation (e.g. Barth 1969, Brather 2004). Without specific historical evidence of culture to provide context, material culture is unreadable, as the social processes involved in the recreation of material culture are lost (2004:369, 570-77, cf. Curta 2007:162). This was challenged by Curta, who argued that reading the archaeological record as text is possible (2006:93-4, 2007). Ethnic identity is expressed through a range of characteristics which served to signal the group's differences to outsiders; these could be in the form of practices, but also distinctive uses of material culture which does survive archaeologically (Lucy 2005:96-7, Curta 2007:169). It can therefore be argued that a study of ethnicity in the Roman context requires analysis of both textual and material sources.

My argument now turns to the ethnographic process in the Roman world. As a colonial power, Rome utilised ethnic identities (in the form of tribal or regional names) as a means of

organising its subject populations. However, ascribed ethnic identities in frontier contexts can be problematic, and the bias in the provenance of the written sources towards imperial Roman writers must be addressed.   In the next section, the discursive bias in our key Roman sources on the Batavians in particular and 'barbarians' in general is examined, along with their utilisation by archaeologists writing on the themes of ethnicity and martial identity. It will be shown that auxiliary soldiers were identified within the Roman empire as members of 'martial races' which could be exploited as a source of recruitment. The question of whether these labels were self-applied or imposed is subsequently considered.

2.4.2. *Ethnic identity: Empires and peripheral Others in Classical ethnographies*

> 'To treat our subject with some method, we shall first examine what provinces or nations are to be preferred for supplying the armies with recruits. It is certain that every country produces both brave men and cowards; but *it is equally as certain that some nations are naturally more warlike than others*, and that courage, as well as strength of body, depends greatly upon the influence of the different climates.'

> (Vegetius, 1.2; emphasis mine)

The inhabitants of the north-west frontier – *Gallia Belgica* and the Rhineland - lived on the geographical and cultural fringes of the Roman Empire. How ethnic and martial identities were formed, maintained, and manipulated in these societies has been much discussed in recent years (e.g. Roymans 1990, 1996, 2004, Roymans and Theuws 1991, Woolf 1998, Wells 2001, Mattingly 2004). These studies utilised post-colonial theory to reposition our understanding of the experiences of the inhabitants of these contested regions. This has involved confronting stereotypes such as those of the civilised provincial and the savage barbarian, which are emblematic of both Roman and modern European imperialist ethnographies (see for instance the quote above). Colonial representations of the Other dominated Roman texts which sought to establish and justify imbalances of power between central and peripheral regions, from Strabo to Tacitus, Cassius Dio, and so on (Webster 1994a, 1994b, Stewart 1995, Driel-Murray 2003; cf. Corbey 1989:57-8, Corbey and Leerssen 1991b:*vi*). By utilising analytical tools introduced by post-colonial scholars, it is possible to reassess classical discourse and expose these discursive strategies (Bazelmans 1991, Webster 1994, 1996a:9).
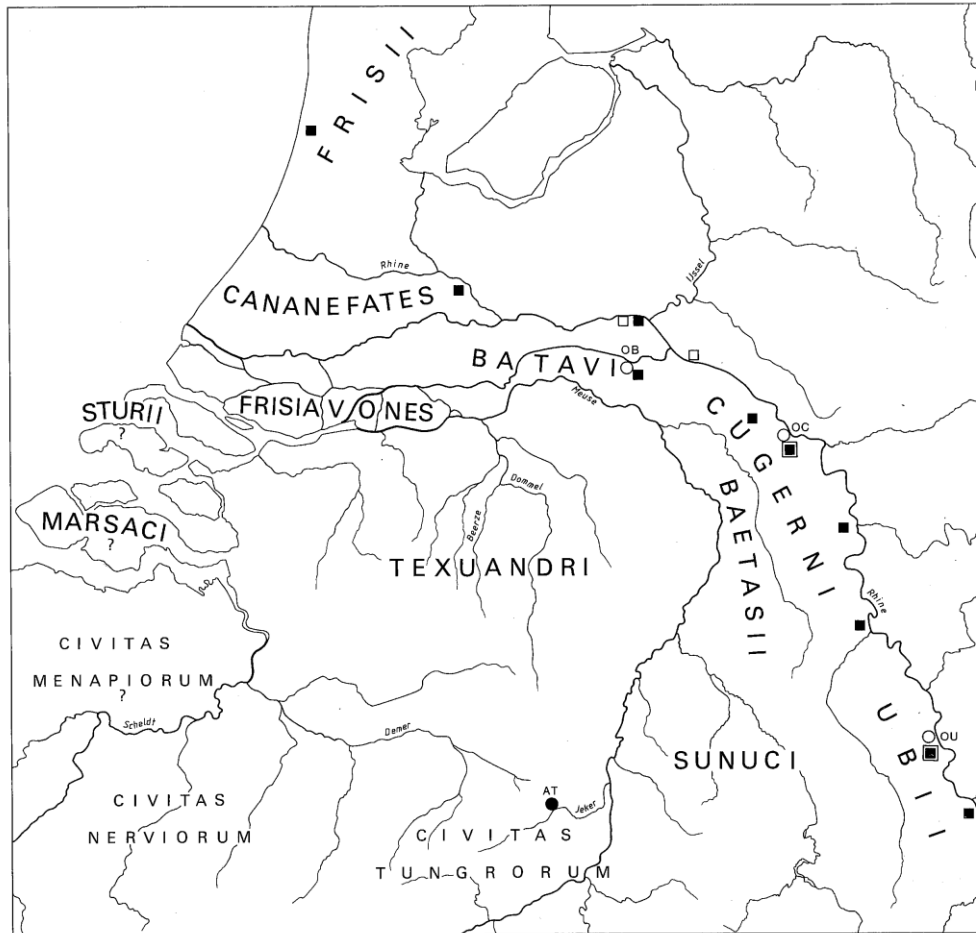
Figure 2.1. Northern Gaul and the Rhineland, showing key tribes, towns/proto-towns and military encampments, *c.* AD 30. AT = Atuatuca Tungrorum (Tongres), OB = Oppidum Batavorum (Nijmegen), OC = Oppidum Cugernorum (Xanten), OU = Oppidum Ubiorum (Cologne). (After Slofstra 1991:185, *fig*. 30).

As the Roman Empire expanded, it brought within its boundaries peoples it had fought and conquered; many of these subsequently became sources of recruitment for the auxiliary regiments. In the next section Enloe's work on 'ethnic soldiers' (1980) is discussed in relation to the creation and exploitation of ethnic identities of frontier peoples by the Romans, in order to fulfil military recruitment demands. The focus is on the auxiliary troops recruited from Northern Gaul and the Rhineland, especially on the Batavian *civitas* due the attention given by Dutch scholars to this issue (*fig* 2.1; cf. Driel-Murray 2003, Nikolay 2007, Roymans 1990, 1996a, 2004, Roymans and Theuws 1991; Clay 2008, Monteiro 2008). The Batavians were the most significant single 'tribe' exploited for recruitment within the Roman Empire, following a treaty made under Caesar in the first century B.C. that granted them exemption from taxation in exchange for a levy of troops; they also feature prominently in the works of Tacitus and in the Vindolanda tablets (cf. Tacitus *Histories* 4.12, *Germania* 29; the tablets are

discussed in subsequent chapters). There are a number of contradictions between their historical representation and archaeological record; a parallel that also holds true for the Gurkha regiments of the British Army in the nineteenth century, which form a comparative example. Many of the issues raised by post-colonial scholars studying this latter period have specific relevance to our understanding of Classical imperialism. Here parallels in the discursive processes that were involved in the creation of both the Batavians and the Gurkhas are addressed (cf. Driel-Murray 2003). After this, the strengths of martial theory and its applicability in relation to the auxiliaries of the Principate as a whole will be discussed. First, it is necessary to justify this theoretical approach.

2.4.3. *Ethnic Soldiers and the state: the 'Gurkha effect'.*

'Ethnic soldiers' as an analytical tool was introduced by Enloe in her discussion of the militarisation of fringe groups within imperial frameworks (1980). Ethnicity, as discussed above, invokes a range of cultural and collective values used to situate a social group within the hierarchy of political power, and emerges through discursive practice (cf. Corbey 1989). Groups close to the centre of the state hierarchy were preferable for administrative roles, and also constituted the ideal source of military power (see *fig.* 2.2). However, these groups also had the most to gain from threatening the state hierarchy. It was safer to use ethnic groups who did not pose a political threat but could serve in other capacities. Preferred were groups on the geographical fringes of empire, who inhabited marginal areas and had met invasions of their land with coordinated armed resistance. This approach has proven successful throughout history for a number of reasons. Firstly, being geographically distinctive made it simpler for the state to isolate a particular people on spatial grounds. Secondly, these regions often had tactical value, lying on invasion routes (Enloe 1980:26). This provided a context in which the primary form of discourse between the colonisers and the colonised was one of violence, affecting how the subject group was portrayed by the central power (Webster 1996:112; cf. Mattingly 2011: 212-3, Roy 2013). These encounters demonstrated the fighting prowess of the periphery group, and their potential to the state.

Once a periphery group had been incorporated, they had to be made a reliable political asset (Enloe 1980:27). The existing authorities of these groups could be co-opted, the military command of the ethnic elites retained, in order to preserve the structure of the original community. Existing bonds of obligation and reciprocation also remained; where these had been used as a source of military manpower, these ultimately served the colonial power

instead (1980:28). Such a group, once established, owed its existence and prestige to the central power – and thus occupied a position too weak to present a challenge to the state apparatus (cf. Weber 1968:994, Roy 2013).

Figure 2.2 Ethnic security map (after Enloe 1980:24, *fig*. 1).

Groups designated as martial in character were advantaged in that the state had an interest in their survival as an ethnic group. This was counterbalanced by an increased dependency on – and vulnerability to – state intervention, as can be seen in the 'Gurkha effect', which encompasses two stages (Enloe 1980:23-5). The first is ethnic fostering by the state, in which an ethnic group is effectively created, incorporating idealised traits of martiality (purportedly displayed in conflict preceding their entry to the state) to portray a population ideal for military recruitment. In the second stage, the newly identified 'martial race' entered a relationship of dependency with the state military (1980:26). The ideal result of this was an ethnic group that combined the idealised qualities of the soldier with loyalty to the state.

Enloe utilised the Gurkhas of Nepal to demonstrate this process in action. The Gurkhas have fought in the British military since their recruitment during the Indian Rebellion of 1857, and remain a significant auxiliary force (cf. Vansittart 1915, Northey and Morris 1928, James and Shiel-Small 1965, Caplan 1995, Streets 2004). However, the 'Gurkha' identity originated as a

product of the ethnographic accounts and memoirs of the British officers who led them, rather than as a self-created label (Caplan 1995:10-11, 107, Streets 2004:9, 78-80, cf. Vansittart 1915, Roy 2013). Over time the martial prowess of the Gurkhas became a stereotype which defined successive generations, and which was transmitted within the ranks of the officers, in literature and mess-hall interaction (Caplan 1995:94, Enloe 1980:28). This entrenched Gurkhas as a 'martial race', recruited as infantrymen *par excellence.*

However, their commanding officers were British and upper class; the most reliable having charge over the least reliable. The relationship between the ethnic infantrymen and their imperial officers was a 'macrocosm of the larger ethnic security system which would maintain the state order' (Enloe 1980:29). This affected the ethnographic discourse produced by the officers of the Gurkha regiments, whose status within the army was directly related to the perceived martial qualities of their regiments (illiteracy meant the subaltern perspective is absent; Streets 2004:199). It was in their interest to portray their troops as not only intrinsic warriors but also quintessential soldiers, possessing the ideal qualities of their imperial commanders (Caplan 1995:155). The Gurkhas were imbued with the imagined ideal characteristics of the British officers themselves; as 'warrior gentlemen', and as a respectable middle-class of landowning farmers, independent within Indian society (Caplan 1995:105). This was at odds with the economic marginalisation of Gurkha society and its subsequent dependency on Britain. Beyond the romantic rhetoric invoked in martial race discourse was the argument that 'these men were naturally drawn to military service rather than pushed into it' (2004:192). Yet until the tourist trade emerged, Nepal's largest source of income was military service (Caplan 1995:36). This financial imperative can be contrasted with the traditions of racial martiality ascribed to them by later British writers (1995:53). Gurkhas could be brave, masculine, and loyal, but remained within a subaltern role, requiring the discipline and moral guidance of British officers (Caplan 1995:195-6, Gould 1999:126).

Enloe's model provides a function for ethnic soldiers within a hypothetical state system. Groups on the margins of the political and economic systems of the state were most subject to exploitation, as they did not have the political or economic power to compete with groups closer to the core. Ethnic identities could be used to delineate the state hierarchy, and where these were not in place, they were fostered by the state (Enloe 1980:26). The relationship between the core and the periphery was defined at an early stage by military activity, during the process of conquest. Certain ethnic groups acquired the status of 'martial race' at this point, as martial qualities gained pre-eminence in their identity. These groups were then

utilised within the state's military, based on this experience. As Enloe argued: 'building militaries has been, in part, an ethnographic exercise' (1980:28).

Recruitment into the state military offered political and economic advancement that was otherwise unattainable. Through incorporation into the economic security of military service, the group members gained respect from and superiority over similar marginal groups who were less suited for martial typecasting (Enloe 1980:27). This led to a culture in which the status of the ethnic soldier was dependent upon his relationship to the state. It was necessary to the state that these ethnic groups remain outside the established networks of power. By emphasising the abilities and achievements of a group within a given role, and excluding them from roles outside it, such marginalisation could be sustained. Martial qualities, even if largely fabricated, are described as 'innate', as intrinsic biological imperatives (Streets 2004:173; the primordialist point of view, cf. Huskinson 2000b:10-11).

The maintenance of ethnic unity within these units was of paramount importance, as it both distinguished the unit from others within the military and enhanced the sense of community of the unit itself (1980:30). This could be sustained through the continued use of symbolic items of material culture and ritual practice connected to the units' origins – traditions not necessarily originating within the homeland of the soldiers that could become iconic within a unit's collective ethnic identity (cf. 'invented traditions' in Hobsbawm 1983). Ethnic soldiers existed within a broader martial institution with preconceived notions surrounding race, status, politics and history. An individual had to conform to a number of expectations put upon him by this institution, including the display of masculinity itself (cf. Jessup 1996, Higate 2003a). The underlying fiction - that martial races were innately warlike, but that their talents were loyally volunteered expressly for the benefit and security of the state - did not necessarily reflect actual material concerns or traditions, but which nonetheless structured their everyday lives (Streets 2004:198-9, Roy 2013).

Repeated tropes of familial connections, effectiveness in battle and geographical determinism show how enduring martial identities based on ethnic identification can be. 'Ethnic soldier' theory finds full expression in ethnographic discourse that is one-sided, culturally specific, and colonial in origin.

2.4.4. *Ethnic Soldiers, Warrior Ethnicities: The ethnographic tradition and the barbarism-civilisation dichotomy.*

Fulfilling the social obligations required to identify (or be identified) as a member of a warrior society allowed men to gain prestige and status within a context that extended beyond their home territory. These strategies affected the everyday life of individuals of every level of society. How much the traditions they aspired to reflect their own culture compared to that of the central state is an important consideration. Enloe invoked the army of the Roman Republic as the earliest example of ethnic race stereotyping, and the parallels with Roman colonial discourse are clear (1980:210-11). Indeed, how a 'martial race' is defined is rooted in the historical and political setting of the discourse itself (cf. Bazelmans 1991, Caplan 1995). It should be remembered that the modern ethnographical aims of impartiality and neutral reporting were not a concern of Roman writers, (Woolf 2011:13, 58). In this section I analyse the use of ethnographic discourse as a 'strategy of power' by Roman writers.

The issue of bias in Roman ethnographies of 'martial race' tribes (especially the Batavians) has received some attention, most notably from Bazelmans (1991) and Driel-Murray (2003). These accounts, particularly those of Tacitus and Caesar, belong to a tradition of Roman ethnographic literature concerning the relationship between Rome and the outside world. These were rooted in a fictional tradition:

> 'In the study of ancient ethnography, no very firm line can be drawn between Greek and Roman accounts of actual foreign peoples, on the one hand, and wonder-tales, descriptions of Utopias, and nostalgia for various Golden Ages, on the other.'

(Murphy 2004:77)

These epics were representative of the Greek and Roman cultures that produced them, using elements that were attractive topics for their audiences rather than accurate representations of their subjects (Murphy 2004:77, cf. Bazelmans 1991:96, Ferris 2011, Krebs 2011). The most common theme in Greek discourse during the Persian Wars (500-479 B.C.) was civilisation contrasted with the 'barbaric', in order to emphasise Greek cultural superiority. The 'Other' was the barbarian, a stereotype intended to be the antithesis of idealised Greek society, based on dichotomies of economy (pastoralism as opposed to Greek agriculture), politics (the hierarchicalism of the Persians in contrast to Athenian democracy) and personality (the emotional Orient, contrasted with Greek restraint); tropes which re-emerged within later

European imperialism (Ascherson 1995:50, Webster 1996:116). Athenian playwrights such as Aeschylus and Euripides exploited the tensions of war to establish an atmosphere of cultural supremacy (Ascherson 1995:50-1). The distinction between civilisation and barbarism became geographical; the closer a culture to Greece, the more civilised the people (cf. Herodotus *Histories*; Webster 1999:24, Ascherson 1995:51). The process of 'Othering' highlighted the specific traits of the Greeks by contrasting ethnic characteristics.

This theme was repeated during the Roman Republic, as Romans contrasted themselves with the Iron Age populations of the north and west (Webster 1996). Greek diacritical concepts of identity became, under the Romans, an expansionist view of the world. Where Greek identity was based around impermeable geographical, genealogical, and linguistic boundaries, the Roman concept of *humanitas* was more flexible, relating to a system of *mores* representing the ideals of the Roman aristocracy (Woolf 1998:54-6). It could also be imparted through the civilising influence of Rome (1998:58-9). Pliny the Elder referenced this whilst eulogising Italy:

> '(It is) a land nourished by all, and yet parent of all lands, chosen by the power of the gods to make even heaven more splendid, to gather together the scattered realms and to soften their customs and unite the discordant wild tongues of so many peoples into a common speech so that they may understand each other, and to give civilisation to mankind, in short to become the homeland of every people in the entire world.'

> (*Natural History* 3.39)

For the Romans, the barbarian lay beyond the frontiers, but could through intervention become civilised. The *topos* of the barbarian Other as lacking in Romanised *mores* continued however, and in depictions they were described in terms of their war-like, irrational behaviour and archaic ways of living. As Woolf has summarised:

> 'They lacked, in other words, both the general moral qualities of human beings and the culture that defined the Roman elite. Eventually *humanitas* was transformed into a characteristic of imperial civilisation, opposed to a barbarism increasingly conceptualised as confined beyond the moral frontiers of the empire.'

> (1998:60)

When describing the Helvetii of Switzerland's expansion into Western France in the first century B.C., Caesar attributed their actions to geographical factors:

' [Surrounding mountains] restricted their movement and made it more difficult to attack their neighbours; and as they are a warlike people they greatly resented this restraint. Considering their large population, military prestige and reputation for bravery, they felt their territory ... was unduly small.'

(*Gallic War* 1.2, cited in Webster 1996:118)

Such depictions excluded alternative explanations for their actions – for the Helvetii, the pressure put on their land by the Germani that was in turn forcing them to encroach on Rome (1996:118-9). Ethnographies of the Other emphasised pre-established roles for the non-Roman that focused on innate violent tendencies, and the corresponding importance of Roman intervention, in the form of invasions led by aristocratic Roman commanders.

This latter aspect of Roman ethnographic discourse has been recently discussed by Krebs, who argued for the role of 'Borealism' in accounts such as Caesar's *Gallic Wars* and Tacitus' *Germania* (2011). Following Orientalism (Said 1978), 'Borealism' refers to the inherently political element of these accounts of barbarian peoples. These contained fantastical, stereotypical images, but were also part of contemporary political discourse, articulating the concerns of the Roman elite through ethnic stereotypes of a barbarian Other. Caesar's commentary on the *Germani* remained a primary source for Tacitus despite the hundred and fifty year gap between the two accounts; this reflected, Krebs argued, the authority of Caesar in introducing them as a distinctive ethnic grouping, rather than an absence of contemporary descriptions (2011:202). These accounts were not ethnographical studies of their subject populations, but rather politically expedient stereotypes, meant to establish a coherent identity for these regions against which the intended audience, the Roman elite, could contrast themselves (Woolf 2011:266). The stereotype of the barbarian, although consistently 'Other', was also fluid; Caesar could describe the Germans as a perpetually aggressive warlike state (*Gallic War* 6.21.3, 6.28.3) because it supported his implicit argument that extending his war in Gaul across the Rhine was too dangerous; Tacitus however could portray Germans as indolent (e.g. *Germania* 15.1) because Trajan was campaigning in the Rhineland at the time, and a controlled population was an increasingly realistic prospect (Krebs 2011:203, 210-11).

This discourse affected how Romans viewed those populations that they would later utilise for the recruitment of auxiliary soldiers. So long as barbarian peoples maintained their violent attributes, they constituted an ideal source of recruits for the *auxilia* (Lendon

2005:247, 257). The subsequent challenge was to ensure that these attributes, considered as culturally specific to the groups recruited, could be maintained over time. These strategies will be the subject of analysis in subsequent chapters.

2.4.5. *Defining the Batavian-Roman relationship*

Having identified the ideological concerns of Roman ethnographies, the application of these to a specific social and geographical context can now be addressed. The tribes of the northwest Rhine frontier and its Gallic hinterland provided a sizeable proportion of Rome's total auxiliary force, but were not the only source of recruits; British garrisons came from as far afield as the Danube and northern Spain in the West, Syria and North Africa in the East. The arguments made in this section relate to to the Batavians, due to the pre-eminence of this tribe within the *auxilia* of the first two centuries A.D., and to the recent research into the archaeological context of this group.

Tacitus' *Germania* is the key historical source for the ethnic origins of the Batavians (Murphy 2004:79). The volume lists the various tribes of Germany in a manner reminiscent of the British military handbooks of the nineteenth century, providing a breakdown of the ethnic traits that were believed to be represented by each Germanic tribe (Driel-Murray 2003:204; cf. Bazelmans 1991). The description of the Batavi emphasises the importance of militarism to this group:

> 'Of all these races the most manly (*virtute*) are the Batavi... Their distinction persists and the emblem of their ancient alliance with us: they are not insulted, that is, with the exaction of tribute, and there is no   taxfarmer to oppress them: immune from burdens and contributions, and set apart for fighting purposes only, they are reserved for war, to be, as it were, arms and weapons.'

> (*Germania* 29)

As Driel-Murray has argued, there is sufficient reason to doubt the narratives presented by Caesar, Tacitus and Cassius Dio, and the archaeology of the north west of the Roman empire offers potential for reassessment (2003, cf. Webster 1996, Krebs 2011). Like the Gurkhas, the Batavian auxiliaries were an exemplary 'martial race', and as with many tribes of the northwest frontier, Rome used the Batavians as a source of auxiliary recruits (see *tab.* 2.1) - albeit on an unparalleled scale. It has been estimated that before A.D. 69, roughly one male member of every Batavian household served in one of the nine infantry cohorts (including the

Imperial bodyguard) or the cavalry *ala* recruited from this region (Bloemers 1978:105, 107; possibly supplemented by members of neighbouring Germanic tribes; cf. Vossen 2003:422, Van Rossum 2004:128). The loss of so many able-bodied Batavian males had severe repercussions for the economy of this region, as women and men left behind took on an increased small-scale agricultural role (Driel-Murray 2008:90). Batavians, alongside other auxiliaries, played a significant role in military campaigns during the first two centuries A.D., including the invasion of Britain (during which eight cohorts of Batavians fought as one group; Van Rossum 2004:115) and the garrisoning of the northern frontier of the province in the first and second centuries (Hassall 1970).

Tribe	Alae	Cohortes	Other units.	Number of soldiers.
Batavi	1	8	Imperial bodyguard	5000
Canninefates	1	1		1000
Sugambri, later Cugerni	-	4		2000
(Baetasii)	-	1		500
Ubii	-	2		1000
(Sunuci)	-	1		500
Treveri	2	-		1000
Aresaces	-	1		500
Vangiones	-	1		500
Tungri	1	4		2500
Frisiavones	-	1		500
Menapii	-	1		500
Morini	-	1		500
Nervii	-	5		2500
Total	**5**	**31**		**18500**

Table 2.1 First century auxiliary units recruited from Belgic Gaul and the Rhineland (after Roymans 1996b:22, *tab.* 1).

The 'ancient alliance' arose from the resettlement of peoples by Caesar following the revolt of the Eburones in 54 B.C. (Roymans 2004:23-4). Refuting Tacitus' description of the Batavians as Chatti outcasts moving into unpopulated territory, Roymans has argued that Batavian ethnicity arose from the amalgamation of pre-existing ethnic groups (including remnants of the Eburones) coalescing around the *stirps regia* (royal family), a *Traditionskern* that would form the basis of Batavian ethnic identity (Roymans 2004; cf. Wenskus 1962). The continuation of the Alphen-Ekeren house forms, handmade pottery and glass La Tène arm rings within this region between the revolt and the first century A.D. supported this conclusion archaeologically (Roymans 2004:27). Northern Gaul and the Rhineland were notable in the Late Iron Age and Early Roman period for their limited urban development,

with typical settlements consisting of only a few buildings, the northern-most true urban settlement prior to A.D. 79 being Atuatuca (Tongres), capital of the Tungrian *civitas* (Slofstra 1991:145, Roymans 1996b:53, Vanderhoeven 1996:190-1).

The freedom from taxation the Batavians enjoyed was however illusory, as the levy on manpower restricted them to a specialised role within the Empire (Driel-Murray 2003:205, Enloe 1980:50). The economic marginality Gurkhas experienced in their mountainous homeland was also a factor in the marshy, overcrowded island of the *civitas Batavorum*; pastoral farming would have been difficult, and cattle may have been primarily a source of manure for fertiliser rather than the foundation of a meat-based diet (Kooistra 1996:71-3, Driel-Murray 2003:205; for diet see **5.5.3-10**). As the Batavians became famous for their cavalrymen, horse breeding within the region also intensified in order to meet that demand (Groot 2008:77-91, Vossen and Groot 2009). This connects the Batavians to Enloe's 'ethnic soldiers'; economic marginality ensured they were amenable to this role.

Nonetheless, the Batavians were firmly entered into an ideologically informed social map of the Empire that included them with the Germanic tribes beyond the Empire, and thus outside the boundaries of Roman civilisation. The manner in which they were presented to the Roman world reflected an implicit martiality; as Tacitus emphasises:

> 'They had long training in our wars with the Germans; then later they increased their renown by service in Britain, whither some cohorts were sent, led according to their ancient custom by the noblest among them. They had also at home a select body of cavalry which excelled in swimming; keeping their arms and horses, they crossed the Rhine without breaking formation.'

> (*Histories* 4.12)

As with the Gurkhas in British texts, Batavian military achievements and skill are emphasised by Tacitus; they played key roles in battles such as Mons Graupius and possibly the invasion of Anglesey (*Agricola* 36, *Agricola* 18; cf. *Annals* 2.8, 2.11, *CIL* 6.3308, Hassall 1970). Cassius Dio also refers to Batavians crossing the River Medway at a crucial point during the Claudian invasion of Britain (*Roman History* 60.20). Batavians were described as physically imposing, brave, and loyal (and thus attractive members of the Imperial bodyguard) but also simple of mind; Julius Civilis, leader of the Batavian revolt in A.D. 69, was merely 'cleverer than most barbarians' (Tacitus *Histories* 4.13). Martial referred to those who were ignorant

of his poetry as having a 'Batavian ear' (*auris Batava*) and described a mask of a red-haired Batavian in monstrous terms (Martial *Epigrams* 6.82, 14.176; Roymans 2004:226).

The Batavians nonetheless stood out from their German neighbours. Tacitus portrayed them as no longer merely barbarians seeking plunder, but as warriors fighting for glory in battle (*Histories* 4.78, cf. Roymans 2004:226). The revolt of A.D. 69 arose from Batavian grievances following the actions of Vitellius' recruiting officers, who had abused the treaty (*Histories* 4.14); the Batavians, having served Rome faithfully, believed they deserved fairer treatment (Saddington 1997:494). The revolt marked the transition of the Batavians from Roman ally to an exploited and expendable source of manpower, whose identity was established through Roman definitions (Driel-Murray 2003:204). The Batavians had been economically dependent upon continuous military recruitment for the maintenance of both their elites and their unity as an ethnic unit. The revolt ended the former, but the discourse of martial valour that had enhanced the profile of the Batavian levy sustained this collective identity into the third century. The dissolution of the imperial bodyguard and the transition from homeland recruitment to local recruitment for 'ethnic' units meant such descriptions became largely a matter of tradition; such was the fate of the increasingly generic 'Batavian' units over the second century A.D. (Driel-Murray 2003:214-5, cf. Van Rossum 2004). The martial race discourse of Roman writers that emphasised the marginality of the Batavians demonstrated the imbalance of power between frontier ethnic groups and Rome.

2.4.6. *'Ethnic soldier' discussion*

In this section martial race theory has been discussed in post-colonial and classical contexts. In emphasising the needs of the imperial state to obtain a reliable source of military manpower, it has been argued that it is possible to reassess ethnographic texts relating to ethnicity, and the processes involved in their creation. This revealed biases that affected why and how certain ethnic traits were emphasised. Ethnographic texts reflected the self-image of the writers, and asserted superiority through primitive depictions of subject peoples. For the Batavians, 'ethnic soldier' theory can be used to understand the complex limitations and manipulations of these auxiliaries within the community of the soldiers;.the attractions of military service must be contrasted to the pressures imposed by their economic and political marginality, particularly after the Revolt. The primordialist ethnic identity utilised by Roman aristocratic writers may be viewed as the element of military recruitment closest to fitting the model of the 'greedy institution'; by emphasising military service as a natural role,

recruitment could be achieved through means other than, or parallel to, forced conscription (Coser 1964:6). (It is notable in this context that the Revolt was triggered by a period of forced conscription, negating this voluntary process and thus exposing the lack of true agency for the Batavians.) The use of this ethnic stereotyping will also have applied to other ethnic groups along the northern frontiers of the Roman Empire, of whom we are much less well informed. As with the Gurkhas, ethnic auxiliary soldiers in the Roman Principate were expected to meet the standards established by the imperial core, but faced severe restrictions with regards to their political and economic agency (the lack of citizenship status being the clearest indication of this). Only once their service was complete did they gain legal parity with their legionary peers.

The weaknesses of martial race discourse must also be considered however. As discussed above, the most significant absence in discussions of Roman military life is that of women and other family members, and as martial race discourse focus on masculine activities (such as warmongering, or male rites of passage) and supposed intrinsic male characteristics (such as bravery, loyalty or physical size), the role of women and non-martial activities in these accounts tend to be marginalised as uninteresting or politically circumspect, even though women are an essential component of any ethnic group, martial or otherwise (Driel-Murray 2003:206, Enloe 1980:29). As such the involvement of women in the ethnogenesis and maintenance of martial races is rarely apparent; how non-soldiers situated themselves within such an ideology remains an important question.

Finally, the question arises of how ethnic identities manifested themselves on the northern frontier over time. Auxiliary units stationed here were raised in distant lands and transported to Britain as agents of Rome. This placed them in a position of power over native Britons, but also alienated them as resented outsiders (cf. Coser 1974:9-10). They were also separated from their own base of political power, and as such entirely reliant upon the institution of the Roman military, which itself imposed a distinctly Roman way of life upon them (1974:11). This reliance extended from the soldiers to the broader fort community (cf. Segal 1986:18). Over subsequent chapters, factors affecting this form of identity will be addressed.

This study of identity in auxiliary fort communities therefore addresses the interactions of military and non-military, of trader and farmer, of male and female, old and young; Roman, peregrine, slave and barbarian (cf. Allason-Jones 2005:58-60). Here archaeology can reveal more about the practicalities of everyday life, where the classical sources are less

informative, and so help illustrate how ethnic identities were communicated and replicated by non-soldiers within the fort communities of the north of Roman Britain in our period.

2.5 *Case study themes.*

In this chapter I have discussed issues relating to the construction of communal identity within the Roman world. The key areas of institutional (military, familial and economic), gender, and ethnic identity have been discussed in the broader context of the Roman Empire and contemporary research. The thesis addresses the transformational effects of membership of the Roman military community, but it should be recognised that the diverse range of ethnic and cultural backgrounds of the men and women who made up these communities preclude the idea of a universal military experience. Recent military ethnographies as discussed above have revealed the complexity of martial identities; a critical analysis of the identities of the Roman auxiliary soldier and other members of his community must take this into account.

As discussed above, military histories have addressed both intrinsic and extrinsic military traits, which can be applied to the Roman world. Identities within the Roman military were discrepant, with different forms expressed depending upon circumstance. Understanding how identities were transformed by integration into the military community – successfully or unsuccessfully, knowingly or unknowingly – enables a better understanding of the role of Roman society within the military. In the *auxilia*, the processes involved in the construction of military identity were applied to non-citizen males from the apparently barbaric fringes of the known world, and to their dependants. Over the next three chapters of this thesis, the construction and maintenance of identities in the complex communities of the Roman frontier of Britain in light of these conflicting institutional contexts is discussed. The archaeological evidence is analysed in three key contexts:

1) The explicit communication of individual identities through writing and art,
2) The shaping of identity and control over individual agency through fort and vicus architecture and an archaeological analysis of patterns of inhabitation by these intersecting groups, and
3) The performance and reading of identities through portable material culture and craft traditions.

This approach enables the application of this theoretical context to the archaeology of the Roman frontier of northern Britain.

Chapter three: Writing identity within the military community: elite texts, epigraphy and military correspondence.

3.1. *Introduction.*

> 'The work of making a community out of men from disparate worlds and social backgrounds was never simple or completed. The men shared social status but not ethnicity, and although an increasing number may have been sons of legionaries and auxiliaries, they need not have shared other elements of their experience prior to entering the military. The task of forging a military ethos and sense of identity thus needed constant reinforcement, and never more than in times when so many came from parts of the empire that had little direct contact with Rome and the cities of the Mediterranean shore.'

(Kampen 2006:132)

As noted by Kampen, Roman martial identity was rooted in a tradition that was geographically and culturally remote from the context of the northern frontier and the auxiliary garrisons which populated it. Active participation in military practice provided a way of life recognisable across the Empire, instilling a *habitus* borne of training, daily routine and interaction with other military units. Such activities strengthened internal bonds of identification within the fort community, uniting soldiers, their dependants and other non-combatants. However, the connection between this community and the Roman world as a whole also required continuous negotiation; for the soldiers and their service to be recognised as supportive of the state, for discipline and loyalty to the state to be emphasised, and for the exceptional nature of the soldiers in relationship to surrounding native peoples to be preserved. Thus the identity of members of the fort community had to be recognised over long distances, in order to connect them to the broader military community and to the economic and political structures of the Roman Empire, and over time, in order to present this 'imagined community' as a deeply embedded tradition.

In this chapter, the analysis turns to mechanisms through which institutional identities, and other related identities, were maintained and communicated across distances of time and space, through the use of text and, in the case of monuments, the art that accompanied them. This approach provides an insight into how members of military communities were described, and in part defined, through texts; and to the categories into which they were placed. This provides a basis for understanding the relationships between fort community members, and subsequently for identifying conflicts and variations in the self-representation

of identity depending upon context. Textual analysis thus provides a glimpse into the functional boundaries of the 'greedy institution' of the Roman military, and to how other social groups, within and beyond the fort community, competed with its members for their time and attention. However, it will also be shown that focusing entirely on textual sources privileges explicit forms of identity expression and maintenance, and obscures many of the processes of social control that are indicative of the 'greedy institution' – particularly when applied to people originating from outside the Mediterranean world. For this reason, this textual analysis serves as a precursor to the examination of other forms of identity expression and social control in subsequent chapters.

This chapter addresses two forms of media through which identities in the fort communities of Roman Britain were created, communicated and sustained over distances of time and space. These formed an everpresent backdrop to the lives of the soldiers, and engagement with them was unavoidable (cf. Haynes 2013:320). The first is epigraphy, as present on monuments and tombstones. Northern Britain lacked a significant epigraphic habit compared to other regions within the Empire, but those monuments that have survived provide clear messages of identification at an individual level, with identity expressed both through the text and in accompanying reliefs. These were static markers that referenced distant literary and artistic traditions. They were also durable reminders of communal identity, situated in positions that meant they served as reference points for communities over generations (Hope 1997). The second is direct written communication, which connected individuals over long distances and could refer to past encounters, but were intended as roughly contemporaneous forms of communication. In the region covered in this thesis, the key data source for this form of communication is the Vindolanda tablets, although reference is also made with the archives of Carlisle and Vindonissa.

Multiple discrepant identities are identified within these sources and related to fort communities in the northern military zone. This demonstrates the principle of how categories of data may be read for indications of differing or conflicting identities, an approach expanded upon in subsequent chapters. This methodology follows an approach to identity initially established by Mattingly in a volume in 1997 and expanded upon in subsequent works (2004, 2006, 2011). Mattingly, adapting the concept of 'discrepant experiences' from Said's postcolonial analysis of imperial discourse, sought to explore the impact of the Roman empire on people across the social spectrum, and from the perspective of members of both the colonising power and the subject peoples (Said 1992:35-7, Mattingly 2011). Through

examining what he termed discrepant identity, he highlighted the 'heterogeneity of response to Rome, to culture change and to identity (re-)formation' (2011:213). He argued:

> '…[I]t is possible to discern significant variability among certain important groups of people within Roman society and … the interplay among these different identities can reveal interesting things about the operation of power and reactions to it within these societies.'

(Mattingly 2011:214)

By taking such an approach Mattingly distanced himself from postcolonial approaches that focused explicitly upon resistance to imperial systems (e.g. creolisation; Webster 2001) or on elite collaboration (cf. Romanisation; Millett 1990). Instead, he incorporated both into an holistic form of analysis that addressed aspects of resistance and collaboration/participation between imperial agents and subject peoples, with an emphasis upon the specific constraints imposed by an imperial system (Mattingly 2011:216-7). In carrying out this analysis, he identified a number of social factors by which an individual might identify, and how the expression of these may vary depending upon context (these were listed as: status, wealth, location, employment, religion, origin, connection (or lack thereof) to imperial government, language and literacy (and possession thereof), gender and age; 2011:217). This demographic exercise could be used to demonstrate how individuals could have both discrepant and concordant experiences within the same context; united with a broader group by one aspect of their identity, yet potentially marked as an outsider to the group by some other aspect. As discussed in the introduction to this thesis, Mattingly used this methodology to identify archaeologically differences between broad social groups within Roman Britain, of which the military was one, through the study of the use of material culture and the more overt forms of self identification discussed within this chapter (2011:216-7, 223).

The open expression of identity within an imperial context was not, I argue, a neutral act, but a reflection of an imbalance of power inherent to an imperial system. This approach can also be used to examine other forms of power relationship affecting identity expression that are especially pertinent to an institutional environment. As noted above, 'greedy institutions' also seek to establish living conditions that make excessive demands upon individuals and make connections to other networks of identity. Here the methodology established by Mattingly is utilised to examine subgroups within the military community, and especially within fort communities, thus acknowledging the fact that an imbalance of power, institutionally, culturally and politically, lay at the core of life within the fort communities of

northern Britain. The nature of this power imbalance is made especially clear in artwork which emphasises the uniformity of the Roman military, and its response to the barbarian 'Other' (see **3.2.1**, **3.2.3** below).

However, this approach requires some modification in order to be applicable throughout this thesis. As discussed below (**3.2.2**) only a few forms of textual communication survive archaeologically which provide a broad overview of demographic information relating to an individual, and even then they are problematic due to issues such as authorship (especially in relation to funerary monuments). With regards to archaeological evidence in general, I am more interested in the types of social connections and networks that are established, referenced and sustained through them. How these identity networks are referenced is contextually dependent, and as such each class of evidence requires a reconsidered approach. Mattingly's demographic approach is addressed here first, and its strengths and weaknesses debated. I subsequently adapt this method of analysis to my study of the writing tablets from northern Britain, and again when I address material culture in subsequent chapters. This is partially a pragmatic approach, due to the complexity of addressing very different evidence types, but it does enable some comparison to be drawn between them.

3.2.1. Monuments and tombstones.

Figure 3.1. Distance slab of the Twentieth Legion on the Antonine Wall, Hutcheson Hill (after Robertson 1969).

Within the canon of Roman monumental art, imperial propaganda in the form of sculpture, such as Trajan's Column in Rome (A.D. 113, cf. Coulston 2002; Chicorius 1896) established the importance of the military within Roman politics, and emphasised the power of the Emperor who commanded it. The ideological implications of these representations in terms of their reliance on binary distinctions between the civilised Roman and the uncivilised barbarian was discussed above (see **2.4.1**). This trope of classical art found representation on the northern frontier as well; *fig.* 3.1 above shows one of the distance slabs of the Antonine Wall, installed by its legionary constructors in the period A.D. 140-3. The frieze portrays the victorious Twentieth Legion (represented by both the standard bearer and the boar below) being crowned by a female deity, within a temple. Shown in poses of defeat to either side are two captive yet quintessential barbarian figures − spiky-haired, muscular and near-naked − emphasising the military accomplishments of the legionary wall builders (cf. Ferris 2011:185).

Figure 3.2. The Bridgeness distance slab (after RCAHMS 2011; *RIB* 2139, *CSIR* I.4.68).

Figure 3.2, another distance slab from the Antonine Wall, uses a similar binary representation of the barbarian and the civilised Roman. Here the relief divides the figures into two scenes. On the left, the heroic cavalryman rears his horse over four further defeated barbarian figures; on the right, the ritual cleansing of the legion (*suovetaurilia*; cf. *Chic.* LIII) is depicted (Breeze 1989:133). The achievement of the construction of a stretch of the Wall is celebrated with a double-hit of Roman military superiority, of victory in warfare through bravery and religious piety. These images reflect a metropolitan ideology regarding the role of the soldiers, and this is perhaps not surprising given the legionary status of the dedicators (cf. Kampen 2006).

Roman sculptural art on the northern frontier reflects this classical inspiration. However, it does not necessarily follow that, as Henig has argued, 'the culture and artistic taste of the new

order was uncompromisingly Roman' (1999:151). For auxiliary communities, this art was also aspirational; without the status of Roman citizenship for the most part, they remained positioned below the legionaries in status. It will be argued here that the use of triumphalist Roman imagery by non-Roman citizens was done in the context of this inequality, and indeed served as a deliberate act of negotiation of identity.

In this section, the representation of and reference to discrepant identities within stone monuments is examined in detail (for key studies on this topic see Hope 1997, 1998, 2000, 2001, Carroll 2006; cf. Mattingly 2004:11). Because of space limitations, it is not possible to address all forms of iconography or epigraphy on stone (such as the wealth of religious dedications); however, focusing on funerary monuments is an effective compromise, as these are extremely important signifiers of identity for the deceased. As I am primarily interested in the relationship between soldiers and non-combatants, I am specifically looking for signifiers of military and non-military roles, and familial affiliations.

3.2.2. *Discrepant identities of the living and the dead.*

Tracing the dead of the northern frontier zone is a task beset with difficulties; not the least of which are the limited number of cemeteries discovered and the poor preservation of organic material in the typically acidic soil. The monuments associated with the burial of soldiers and their dependants can however provide an insight into the social context of the deceased and the form of identity which was favoured by them or by their survivors (Hope 2001:7-9). As Carroll has described, 'the form and size of the monument itself, and the written text on it, made it possible to display and negotiate status, belonging, and social relations in the community' (2006:30). These markers stood outside the gates of forts and civilian settlements, lining the roads, and communicated the identity of the deceased to all (2006:48).

As these were public monuments, it is worth remembering that 'the dead do not bury themselves' (Parker Pearson 2000:3) and that the treatment of the dead was as much about the identity of the living as of the deceased. The remembrance of the dead through such funerary monuments was an important social obligation for the heirs of the deceased in the Roman world (Carroll 2006:33), and the epitaphs can correspondingly reveal a host of potential identity networks, including family members, heirs, patrons, and *collegia* membership (2006:48). A tombstone from Housesteads indicates the types of relationships that may be communicated in this way:

'To the spirits of the departed and to Hurmius, son of Leubasnus, soldier of the First Cohort of Tungrians, *beneficiarius* of the prefect. Calpurnius, his heir, had this set up.'

(*RIB* 1619, Housesteads.)

Here the soldier is remembered for his connections to his family (his father, Leubasnus), his military unit and potential ethnicity (the First Cohort of Tungrians), his status within the regiment (as bodyguard to the commander), and for his social circle (if we take Calpurnius to be a fellow soldier). Often it was only the names of the heirs of the deceased who featured in the epitaph; these could be family members or fellow soldiers, but the presence of one does not necessarily exclude the other. Soldiers who died far from their families may only have the names of their fellow soldiers on their memorials, but that does not mean their families were not significant in life (Carroll 2006:180).

Figure 3.3. The tombstone of Regina, South Shields (after BBC 2010; *RIB* 1065).

The information communicated through the inscriptions of funerary monuments was typically sparse. There are rarely any allusions to religion beyond an address to the *Dis Manibus* ('spirits of the dead'), abbreviated to *DM*; funerary rituals too are generally beyond recovery (Hope 2001:9, 23).   However, monuments bearing iconography allow for a fuller representation of the deceased to be made, from which archaeologists can in turn glean more

information to complement that provided by the text (Hope 2001:7). In his study of identity in Roman Britain, Mattingly outlined a range of forms of identity expressed within the tombstone of Regina from South Shields (2004:11; see *fig.* 3.3).

'DM Regina, his freedwoman and wife, a Catuvellaunian by tribe, aged 30, Barates of Palmyra (set this up). Regina, the freedwoman of Barate, alas.'

(*RIB* 1065).

Regina was the slave, then freedwoman, and subsequently wife of a Syrian named Barates, who may have been a soldier or merchant on or near Hadrian's Wall. As Mattingly argues, the distinction is unimportant as either way he will have been a member of the military community (2004:11, n.41). It is possible that his tombstone is present at Corbridge, although hehas a common Syrian name (*RIB* 1171). The last line in this tribute to Regina is in a Palmyrene script, and presumably demonstrates a very personal addition to this tribute. Within this memorial, Mattingly identified the following factors affecting identity (see *tab.* 3.1).

Identity Type	Regina's Profile	Indicator
Status	Freedwoman (non-citizen).	Inscription.
Wealth	Modest wealth (aspirational?).	Dress and accoutrements.
Location	Northern frontier.	Find spot.
Employment	Slave, freedwoman then wife of soldier.	Inscription.
Religion	Pagan.	Inscription formulae.
Origin	Catuvellaunian (SE Britain).	Inscription.
Links to Roman state	Implicitly part of military community.	Tombstone by *vicus*.
Legal jurisdiction	Civil/military law?	
Language and literacy	Trilingual (British, Latin, Palmyrene).	Latin and Palmyrene script.
Gender	Female.	Relief sculpture (Roman elite female).
Age	30 (middle-aged).	Inscription.

Table 3.1. Status indicators of Regina (after Mattingly 2004:11, *tab.* 1).

As has been discussed, the military community contained people of many different backgrounds, and a couple from opposite ends of the Empire (Britain and Syria) are an excellent example of this multiculturalism (cf. BBC 2011). The categories established by Mattingly provide an effective means of breaking down the different factors relating to identity that may be expressed through funerary iconography and epigraphy; they also demonstrate how tombstones can provide contexts unavailable with documentary sources. The use of standard formulae on tombstone inscriptions means we know something about the

history of the individuals represented (Carroll 2006:28), including age, and from the epitaphs of soldiers, the length of their career in service (Hope 2001:39).

To Mattingly's analysis, we may also add the use of material culture in presenting a gender identity; Regina utilises symbols of domesticity to appear in a matronly role, with her spindle and distaff, balls of wool, and secure lockbox. Mattingly alarmingly includes her marital status under 'employment', but this is a realistic appraisal of the initial stages of their relationship, reminding us that the role of women within the military community was often tenuous and based on extreme inequalities of status. Regina was clearly mourned, but other women, lacking an expensive tombstone, may not have been held such a status (cf. Mattingly 2006:175, Brandl 2008:59; for concubinage see Driel-Murray 1995a, 1997, 2008, Stoll 2008; *CJ* 3.44.5).

> 'To the spirits of the dead; Victor, a Moorish tribesman, aged 20, freedman of Numerianus, trooper of the First Cavalry Regiment of Asturians, who most devotedly conducted him to the tomb.'
>
> (*RIB* 1065, *CSIR* I.1.248.)

A similar process may be applied to another tombstone from South Shields, representing another member of the military community. This is the second century tombstone of Victor, a young freedman of North African origin who was commemorated by the Asturian cavalryman Numerianus (*fig.* 3.4). Like Regina, Victor was a member of the military community who had likely entered in a servile capacity (perhaps as groom of Numerianus). Perhaps also as with Regina, the bond between the two was more than professional: Victor was carried to the tomb 'with great devotion' (*piantissime*) by Numerianus. This indicates his directing role during the burial ritual, undertaken without the compulsion of a will that a freedman could not make.

Victor was a low status member of the military community, but his iconographic representation does not reflect this; he is shown in a feasting pose (*Totenmahl*) more often associated with the cavalry soldiers themselves (this tombstone notably lacks the usual small figure of a *calo* leading a horse, for obvious reasons, but does include a servant offering a drink: Bishop and Coulston 2006:9-10; cf. Hope 1997:253, 2001:42, Stewart 2009:257). This form of iconography originated with Greek civilians in the Balkans, before spreading to

the Rhineland amongst soldiers, then eventually reaching Britain in the second century A.D. (Stewart 2009:256-7).

Figure 3.4. Tombstone of Victor the Moor, South Shields (after TWAM 2013).

We therefore have a Spanish cavalryman commemorating his North African freedman following a Balkan/Germanic fashion, on a monument that also references Palmyrene art, the iconography of which portrays the quintessentially civilised Roman practice of dining (Stewart 2009:268-9). That these varied cultural influences were brought together to produce a composite image is befitting of a military community that united diverse elements through incorporation (cf. James 1999). Victor's professional role is entirely absent from this idealised depiction, and we are reliant on the inscription to know that the commemorated individual was a former slave at all. Again, however, the emphasis is on cultural distinction; Victor is shown in a manner appropriate for a wealthy Roman citizen, even if this is contrary to what he was in life, and his past as a slave is carefully excluded. Tombstones therefore offered an opportunity for social advancement of the deceased even after death, showing them as they (or their heirs) wished them to be seen (Hope 1997:258). This aspiration was configured around an ideal established within a Roman cultural context.

3.2.3. *The* Reitertyp *Tombstones*
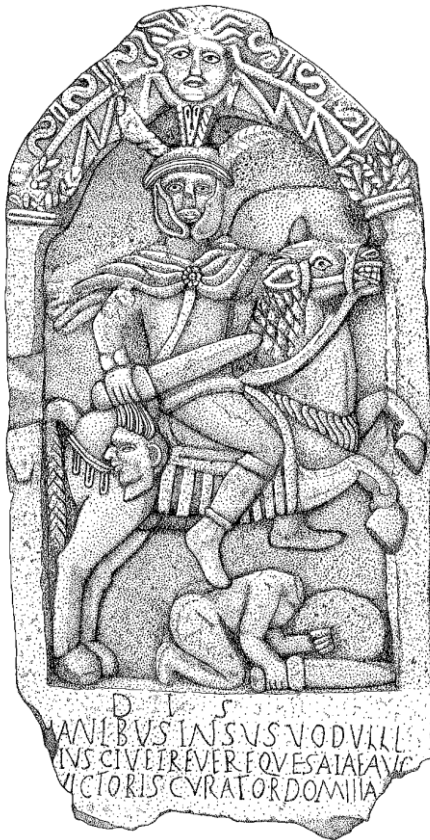
Figure 3.5. The memorial stone of Insus, Lancaster (after Shotter 2009:69, *fig*. 4.15).

The tendency to present exaggerated or idealised versions of the deceased within iconography can also be noted in monuments dedicated by and to soldiers. The most distinctive forms of monument were the *Reitertyp* ('horseman type') tombstones, erected for cavalrymen and portraying them in dramatic, victorious poses, usually in opposition to the prone figure of a defeated barbarian (see *fig*. 3.5; cf. Schleiermacher 1984, Rosso 2008). As noted above, military epitaphs were formulaic, providing basic details such as name (that of their father for auxiliaries, voting tribe for legionaries and citizens), rank, military unit, age and length of service (Hope 2001:39). To this may have been added details of any heirs, which can provide a further insight in the family structures of soldiers (cf. Phang 2002). However, in contrast to the tombstones of Regina and Victor, it was the military identity of the deceased that was placed at the forefront of their identity; institutional membership had after all governed their lives, providing them with wealth, status, and a peer group, as well as provided context for all other social bonds they had formed (Hope 2001:38-9). This was especially the case in the context of the *Reitertyp*, which accompanied this epigraphic focus with a quintessential image of the triumphant Roman warrior. Of course, the Roman cavalryman was also an

auxiliary who would be otherwise excluded from the political and legal benefits of Roman citizenship (an irony noted by Hope, 1997:252). The use of this image therefore requires some unpacking to explain how and why it was utilised by men born as foreigners within the Roman world.

Table 3.2 below is a catalogue of the extant *Reitertyp* tombstones within Roman Britain, showing that most of the stones of this type feature the 'triumphant rider' pose (cf. Shotter *et al* 2009:72). These were monuments of significant size; the tombstone of Flavinus, now in Hexham Abbey, stands 2.64m high. The form was introduced to Britain from the German provinces, especially the Rhineland, although it had its origins in Greek monuments such as the Dexileos memorial (Hope 1997:252, Mackintosh 1986). There is also a clear chronology to the use of these monuments, with peaks in the mid-to-late first century A.D. and post-dating the third century A.D. The early peak, which falls into the period covered by this thesis, may be considered as part of the broader conquest pattern of emphasising Roman military might within newly conquered areas. Funerary monuments, by Roman law, occupied liminal land on the outskirts of settlements. They were, accordingly, the first overt statement of Roman identity encountered by those approaching fort sites and *vici*, and the message sent was a powerfully militaristic one.

The contrast between the classical image of the warrior and the barbarian had a long history within Roman colonial discourse, as discussed in **2.5.5**. The appropriation of this imagery may therefore be interpreted as a deliberate subversion by auxiliary troops in whose interest it was to emphatically lay claim to an identity that was fully incorporated into the Roman hierarchy – especially for the ethnic units that had been involved in the Batavian revolt of A.D. 69. The Treveri, of whom Insus was a member, had been dispatched to Britain under a cloud after having sided with the rebels in that revolt; they had previously revolted against Caesar during his conquest of Gaul (Shotter *et al* 2009:73; Tacitus *Histories* 4.54, 4.69, 4.73-4, 5.19, Caesar *Gallic War* 2.24, 2.4, 4.6). The Thracian regiments too had a history of conflict with the Romans and so may also have felt under pressure to emphasise their position within (Roman) civilisation. That they were able to do so reflected a core component of Roman colonial ideology: that it could incorporate other peoples into its cultural system, so long as they saw fit to defend Rome militarily as well (Giardina 2008:58).

Reiter Stones of Roman Britain:

Name	Type	Current Location	Rank/Unit/Origin	Date (AD)	Schleiermacher number/ Reference
Insus, son of Vodullus	Rider, barbarian	Lancaster	*Curator*, *Ala Augusta* (Treveri)	c.75-120	-, Bull 2007
(Unknown)	Rider, barbarian	Ribchester	(Uninscribed)	c.75-120	-, (Ribchester Museum)
Sextus, of Fabian voting Tribe	Rider, attendant	Chester	(Brixia, Northern Italy)	c.200	71, *RIB* 538
Dannicus	Rider, barbarian	Cirencester	Trooper of *Ala Gallorum Indiana* (Raurici)	c.50-80	74, *RIB* 108
Sextus Valerius Genialis	Rider, barbarian	Cirencester	Trooper of Thracian Cavalry (Frisian)	c.50-80	75, *RIB* 109
Longinus Sdapeze	Rider, barbarian	Colchester	*Duplicarius*, First Thracian Cavalry (Thrace)	c.50	76, *RIB 201*
Flavinus	Rider, barbarian	Hexham	Standard bearer of *Ala Petriana*	c.70-90	77, *RIB* 1172, *CSIR* I.1.68
Rufus Sita	Rider, barbarian	Gloucester	Trooper of Sixth Cohort of Thracians	c.50-80	79, *RIB* 121
Marcus Aurelius Victor	Rider	Newcastle	(Lived 50 years – veteran?)	c.200-250	68, *RIB* 1481
Vitellius Tancinus	(Missing)	Bath	Trooper of Cavalry regiment of Vettones (Caurium, Spain)	c.50-80	69
(Unknown)	Rider	Bath	-	(Unknown)	-, *CSIR* I.2.44-5
Julius Severus	Rider	Chester	Horseman of Twentieth Legion, *Valeria Victrix*	After 100	70, *RIB* 499
(Unknown)	Barbarian	Chester	-	c.100-200	72, *RIB* 551
(Unknown)	Rider	Chester	-	After 200	73, *RIB* 550
Marcus Valerius Martialis	Rider	Chester	-		*RIB* 541
(Unknown)	Rider	Dorchester	-	c.200-300	78, *CSIR* I.2.114
(Unknown)	Rider	Carlisle	-	c.100-200	80
Claudius Tirintius	Rider	Shrewsbury	Trooper of the Cohort of Thracians (57 years old?)	c.75-150	81, *RIB* 291
(Unknown)	Rider	Unprovenenced (British Museum)	-	c.200-400	82
(Unknown)	Rider, barbarian	Unprovenenced (British Museum)	-	c.200-400	83
(Unknown)	Rider	Unprovenenced (British Museum)	-	(Unknown)	84
(Unknown)	Rider	Maryport	-	c.200-400	-
(Unknown)	Rider	Chesters	-	(Unknown)	-
Crescens	Rider, barbarian	Inveresk	Trooper of *Ala Sebosiana, Equites Singularis*	c.140-160	Tomlin 2008:372-4

Table 3.2. The cavalry memorial stones of Roman Britain (adapted from Bull 2007:39-46, Shotter *et al* 2009:78, *tab.* 4.4., Schleiermacher 1984).

Although the auxiliaries came from ethnic backgrounds comparable to the people they faced in battle, I would therefore argue that they definitively cast off that identity on these monuments through opposition to a polarised archetype of the 'barbarian', which reduced the significance of their own revolt in contrast (cf. Chauvot 2008:156). The prone figures of the barbarians are twisted, utterly defeated; they could be seen to represent the complete death of defiance to Rome on the part of the auxiliaries as well, as the barbaric Other is wholly suppressed (see **2.5.5**; cf. Van Alphen 1991:3, Rosso 2008:164-5, Ferris 2011). The cavalrymen are not naked barbarians, but are depicted clad in recognisable elements of Roman militaria, from their face-obscuring helmets to the distinctive harness of the horse from which their status derived (see **5.3.5**). Through the *Reitertyp* tombstone, the role of material culture, especially militaria, in representing the primary identity of the soldier was sustained (although as chapter five will address, the form and appearance of these military items could carry multiple complex levels of signification within the fort community as well).

The message sent by these monuments was one also one clearly intended for the locals; the Roman military community was in control, and it would not tolerate dissent from native Britons. The Boudican revolt (A.D. 60/61) was a recent memory when the late first century tombstones were erected, and the need to present a powerful image of martial dominance to native Britons is likely a factor in the use of this iconography. The significance of this monument type could be understood even by an illiterate audience. That this message was not always appreciated may be suggested by the collapse and splintering early after its erection of the monument of Insus; although this could be the result of shoddy foundation work, the possibility remains that it was an iconoclastic act by aggrieved locals (Shotter *et al* 2009:70). By the second century however, Roman control over the broader landscape was much more established; formerly hostile frontier zones became, if not pacified, at least controlled. The decline of the *Reitertyp* may be seen in correlation to this development, as the relationship between fort communities and native peoples became implicitly less confrontational (cf. Stewart 2009:272).

3.2.4. *Summary: Meaning in the making.*

So far in this section the focus has been upon the presentation of identity within stone epigraphy and iconography. However, the focus of much past discussion of Romano-British stonework has been on the quality of the artwork – or rather the perceived lack of such. The two *stele* to Regina and Victor cited above are, according to Henig, the exceptions that prove

the rule with regards to the quality of sculpture on Hadrian's Wall (1999:159). Mattingly has described the stonework of the northern frontier as 'aspirational and representative', but also as showing a 'lack of first-rate artists' (2006:211). Exactly who was responsible for creating these monuments has been the subject of much debate, with credit being given to either local craftsmen (Henig 1999) or to soldiers or masons that travelled with the unit (Mattingly 2006:210). The conclusion is often a miserable one; Roman Britain is considered poorer for lacking the finely detailed art of the Mediterranean. This perspective has been challenged in recent years by Kampen who argued that sculptors were indeed a part of the military community and quite probably soldiers themselves, as the art associated with military sites is not found on civilian sites nearby (cf. Adamklissi, discussed in the previous chapter; 2006:130). He also argues that the discussion over the relative qualities of Romano-British sculpture to that encountered in Rome is essentially irrelevant. Soldiers on the northern frontier in the first and second centuries A.D. had little experience of the art of the capital, or the perspective available to the modern art historical scholar. As such they were able to appreciate local forms of classical art as appropriate (2006:132). In addition, military communities on the frontiers of the Empire absorbed local artistic influences; increasingly abstract human forms reflected the lack of concern over anatomical accuracy that was characteristic of Celtic art. The funerary art of the Frontier was a response to the request of those commissioning them, as judged by their own criteria (2006:134). For those commemorated, the *bricolage* of art styles represented in these monuments also reflected their own disparate origins. If craftsmen who were part of the unit or based within the fort community were regularly commissioned to produce them, the monuments also gained an authenticity, as a statement of conformity within this regional military community (cf. Carroll 2006:91, Stewart 2009:268).

The ability of local craftsmen to customise the representation to present personal traits of the deceased may also have been significant. The possibility that the details on some *Reitertyp* tombstones may have been carried out by request is raised in the context of the memorial to Insus by Shotter *et al* (2009). The Treveri cavalryman is portrayed as a headhunter, complete with decapitated foe, severed head, and bared sword. It is possible, they argue, that Insus has been presented in a distinctively Treverian manner; they were renowned barbarians prior to their incorporation into the *auxilia* (Caesar *Gallic War* 8.25, Tacitus *Germania* 28.4), and it is implied in a letter by Cicero (*Letters to his Friends* 7.13.2) that they had a reputation for decapitating their foes, reflecting Iron Age beliefs regarding the power contained within the

head (Shotter 2007; for the role of headhunting in European prehistory see Armit 2012). Headhunting as practice would become normalised within the Roman *auxilia* and the military as a whole in the period following the death of Insus, demonstrated by its multiple occurrences on Trajan's Column (see *fig.* 3.6-7; that war ended with the decapitation of the Dacian king Decebalus by the legionary scout Tiberius Claudius Maximus; *AE* 1969:583). To be considered acceptable in this propaganda context shows that any barbaric connotations it had had been successfully contained (Armit 2013: 40-1; a skull recovered from a Severan ditch at Vindolanda may show that the display of severed heads (*fig.* 3.13) continued at that site a century after the Dacian wars; Birley 2003b:239-74).
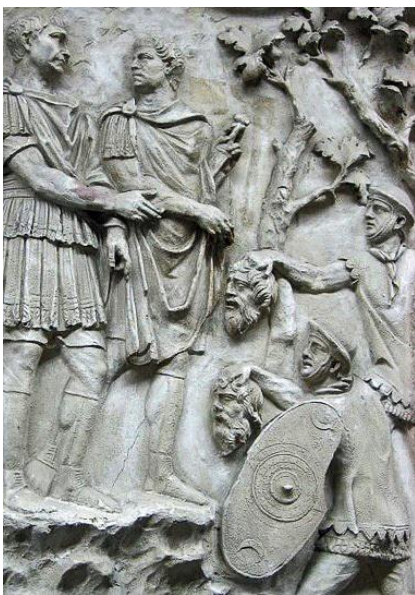
Figure 3.6. The Emperor Trajan being presented with severed Dacian heads by two auxiliaries (*Chic.* XXIV, image: Harney 2013).
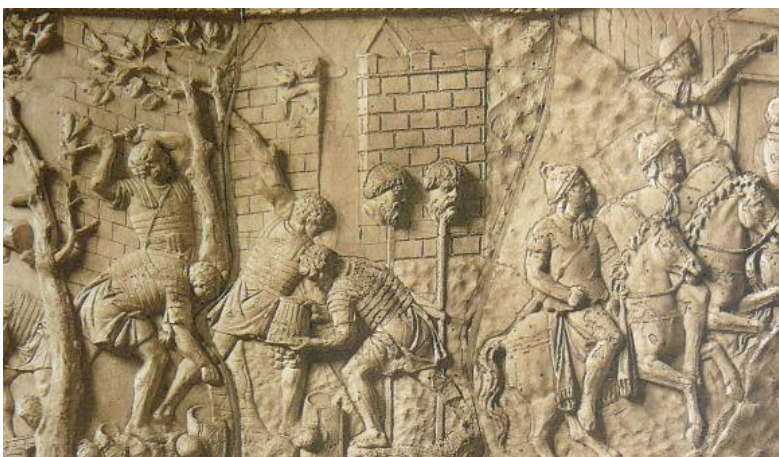
Figure 3.7. Soldiers building a road; two Dacian heads top poles outside the camp gate (*Chic.* LVI, image: Harney 2013).

The torc or armlet shown on Insus' arm is also a classic 'Celtic' item (cf. Fraser 2006; albeit one that had been co-opted by the Romans as a trophy: **2.2.3**). Having been displaced from his homeland following the revolt, Insus (or his heirs) may have sought to affirm the non-Roman elements of his identity through dress, posture and actions, manipulating a traditionally Roman mode of expression - without overtly contradicting Roman values. The influence of native art styles on Roman art in the context of funerary monuments is difficult to identify beyond an emergence of abstraction in human forms. (This is also evident in in religious statues from this region, such as the head of Antenociticus, found at Benwell in 1872, and a similar example recovered in 2013 at Binchester (Shanks 2013); these two heads have lenticular eyes and stylised, flowing hair in the Celtic style.) It is possible that further influences may have been observed in the paint schemes that will have adorned them.

As established, the epigraphic tradition was slow to take off in Britain compared to the continental regions of the Empire (Hope 1997:250). Funerary markers, being so rare, have gained in significance for the stories they do tell. Hope identified as the primary motivating factor for these monuments a desire for legitimisation, especially when established by those on the margins of Roman society, whose political or economic status was tenuous (1997:258). From the examples given above, I would argue that auxiliary cavalry troopers sought to prove their allegiance to the state in response to these pressures; the freedwoman Regina and the freedman Victor are also represented in positions of status and authority that exceeded what they could attain in life, yet were nonetheless coded to gender and status ideals of Roman citizens.

These funerary monuments are therefore a continuation of the processes involved in establishing identity in life, continued after death by the heirs of the deceased (cf. Jenkins 2004:5). This identity was at once individual (as shown in the personalised details in the iconography and epigraphy) and collective, as the identities coded into the monument established a connection between the site and people of the fort community, and the broader military community. A form of communication that emphasised permanence and security over time was a perfect medium for this message. However, this was also a highly dogmatic form of media, operating under particular constraints and restricted to those with the ability to afford it. Fortunately, another form of documentary evidence is available for analysis.

3.3.1. *Literacy and letter writing in the Roman military community.*

> 'How glad I was to get your letter from Britain! I was afraid of the ocean, afraid of the coast of the island. The other parts of the enterprise I do not underrate; but yet they inspire more hope than fear, and it is the suspense rather than any positive alarm that renders me uneasy. You, however, I can see, have a splendid subject for description, topography, natural features of things and places, manners, races, battles, your commander himself—what themes for your pen!'

> (The first known letter sent to Britain, during Caesar's A.D. 54 campaign. Cicero, *Letters to his Brother Quintus* 2.15.)

This letter marks for us the inclusion of Britain into a remarkably efficient and reliable Empire-wide system of literate communication. In this section, the role of literacy and the writing of letters as a media for identification within the auxiliary fort communities of the northern frontier is introduced and discussed. As Britain is becoming a significant source of new Latin texts (Adams 1992:1; cf. Tomlin 2002), this topic is particularly relevant within Roman archaeology. The primary data set analysed here is the collected archive of the Vindolanda tablets. These provide a voice for the soldiers and other members of the military community on the northern frontier of the Roman Empire (they have been published in three volumes and two journal articles: Bowman and Thomas 1984, 1994, 2003, Bowman *et al* 2010, 2011; cf. Vindolanda Trust 2003, CSAD 2010, **II.1-39**; *tab.* 3.3). This was however a voice that was exclusively Latin, and such documents existed to serve the needs of the Roman military institution, not local speakers of native langages. As I will argue, this system of communication contributed to the alienation of Roman soldiers from natives, and vice versa, in a manner expected of a 'greedy institution' (cf. Coser 1974:9); however, this was not an impermeable barrier and a literary education could allow outsiders access to this Roman cultural tool of communication.

If these wooden ink-written letters do not contain descriptions of battle that would have impressed Cicero (notwithstanding **II.3** and the '*Brittunculi*'), they do provide an insight into the bureaucracy of the Roman military from the perspective of troops and dependants living on the northern frontier. They demonstrate the complex social and economic networks of the soldier, as they show communication between friends, comrades, family members, and traders both locally and across the Empire (Pearce 2007, Breeze 1984:282). Although wax stylus tablets are known on Roman sites – and Vindolanda has produced over 200 of these

(Birley 2009:265) – the majority at this site were ink-written tablets the size of a postcard, written in Old Roman Cursive by soldiers of Batavian and Tungrian origin as well as their dependants, during the period c.A.D. 85 to c.A.D. 105 (Bowman 2003:8; there is also one outlier, *Tab. Vindol.* III 670 = **II.36**). These are our best source for understanding the interactions between individuals and groups within the context of this fort community.

Period	Date(AD)	Fort size	Garrison	Prefect
I	c.85-c.90	c.1.4ha/ 3.5ac	*Cohors I Tungrorum*	Iulius Verecundus
II	c.90-c.100	c.2.8ha/ 7ac	*Cohors VIIII Batavorum* *Cohors I Tungrorum* (?)	Flavius Genialis
III	c.100-c.105	-	*Cohors VIIII Batavorum* *Cohors III Batavorum*	Flavius Cerialis
IV	c.105-c.120	<2.8ha/ 7ac	*Cohors I Tungrorum,* detachment from *Cohors I Vardullorum,* legionary detachments	(Unknown)
V	c.120-c.130	-	*Cohors III Nerviorum* (?)	(Unknown)

Table 3.3. The occupation periods and garrisons of Vindolanda during the period of the writing tablets.

The majority are too fragmentary to provide significant data, with only a few visible letters or portions of names surviving from which nothing further could be deduced. A total of 255 tablets remained which were judged suitable for further analysis, representing a mix of personal and official documents. These were divided into categories following the precedent set by Bowman and Thomas (see *tab.* 3.4; for the complete data set see **Appendix IV.1.1**). Of these, the largest category was 'Letters', at 54% of the total assemblage, followed by 'Reports' at 24% and 'Accounts' at 17%. 'Writing exercises' made up 3%, and 'Petitions' just under 1%, with 'Miscellaneous' making up the remainder at just over 1%. These categories are described in greater detail below.

Tablet types	Number
Letters	137
Reports	63
Accounts	43
Writing exercises	7
Petitions	2
Misc.	3
Total:	**255**

Table 3.4. Vindolanda Tablet document types.

These 225 tablets provided sufficient detail for a range of characteristics and references to be identified, relating to social and official communal events, to trade, personal petitions, and to messages of friendship and solidarity, each of which show different routes through which

Roman military identities – and thus the social institution of the military - were communicated and sustained over distances. In this section I analyse the ways in which this form of writing was used to delineate identities within the fort community, as well as assess the behaviours implicit within the act of writing and record keeping. The diverse activities referenced within the tablets provide an appropriately broad context for such a study.

A total of seven different networks of identity were therefore sought within the textual sources: institutional, Roman cultural, non-Roman cultural, familial, social, craft/industrial, and economic. These categories are developed from Mattingly's approach as outlined above, although the emphasis has been changed to practices of behaviour. These are summarised in table 3.5 below. Markers of institutional and Roman cultural identity follow those addressed in chapters one and two, directly referencing official military activities, legal processes and religious events as a baseline for identification or differentiation. Non-Roman culture as a category encompasses aspects of identity which run counter to those expected from a normative Roman military context; evidence for native customs, or interaction with locals fall under this category. Familial and social identities relate to interactions between family members and friends, with the caveat that some crossover is inevitable given the Roman habit over the first century A.D. of addressing colleagues or friends of equal social status in familial terms (cf. Dickey 2002:45, 125). Craft/industrial identities relate to the use of skill in the production or maintenance of material culture. Finally, the economic category encapsulates identities involved in the supply, movement or control of resources, and covers traders, tax collectors and quartermasters alike (cf. Grønlund Evers 2011).

Identity Category	Description
Institutional (**I**)	Institutional document. Related to matters of military administration, referencing hierarchy and official activities.
Roman culture (**RC**)	Reference to core Roman cultural practices or events outside normal military practice, as well as interactions with Roman citizens or through Roman law.
Native/non-Roman culture (**NC**)	Reference to local cultural practices or events, to local individuals or groups, or to local/non-Roman law.
Familial (**F**)	Relating to communication between family members or referencing family members/familial relationships.
Social (**S**)	Relating to communication between friends or relating to social events or gatherings.
Craft/industrial (**C**)	Relating to a specific craft or trade (profession), and to industry.
Trade/supply (**T**)	Relating to trading activities, as well as to storage and distribution of supplies through taxation, requisition etc.

Table 3.5. Categories of identity within the documentary sources.

I acknowledge that these categories are not necessarily exclusive of each other, as a multitude of different identities can be referenced in any given activity. Trading relationships between

friends and family can be identified in the tablets, and official and social roles often coincided. This multi-levelled approach enables us to see how different identities are presented within different media, indicating the weaknesses of addressing only one form of evidence, and providing a range of perspectives on the distributed community of the soldiers.

Each tablet examined was associated with one or more of these criteria based on whether or not a reference was made within the text to that form of identity (**Appendix IV**). Those that made reference to only one were generally simple lists, such as the morning reports, or accounts such as household inventories. Others, such as letters, had the potential to reference multiple forms of identity. Interactions between people living within a complex community depended upon tacit understandings of multiple discrepant identities, as discussed in the last chapter, and letters allowed multiple roles to be sustained over distances. Many activities referred to within the reports also referenced multiple networks of identity, such as construction work carried out by named soldiers or units; these referenced institutional identities as well as invoking participation in shared collective labour.

3.3.2. *Results.*
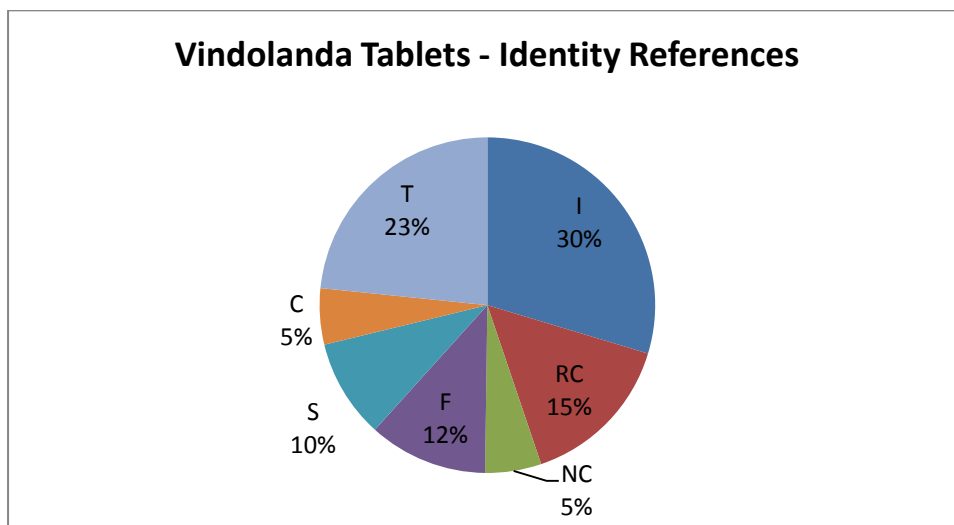
Figure 3.8. Identity references within the Vindolanda tablets (462 total, from 225 tablets).

Within the tablets, I was able to identify: 137 references to institutional identities; 70 references to activities or actions representing Roman cultural traditions; 25 references to activities or interactions with non-Roman cultural practices, activities or individuals; 53 references to familial interactions; 44 to other forms of social interaction; 25 references to interactions or activities based upon crafting ability; and 108 references to interactions based upon trade and supply (*fig.* 3.8). Over the rest of this chapter I shall discuss the institutional

forms of identity expressed within the tablets as well as the social interactions. The tablets relating to cultural practices will be analysed in the next chapter, in which I discuss the social construction of space within the fort community. The tablets are also utilised in the fifth chapter, in which I discuss material culture; the interactions relating to trade and supply are especially pertinent here.

It is important to acknowledge the limitations of this form of analysis. The Vindolanda archive we have is solely thanks to fortuitous preservation of the archive of Cerialis and assorted miscellaneous lost items. However, viewing the data in this way does allow a comparison to be drawn with the extant documentary archives of other sites in the Roman Empire (see *figs* 3.9-12). In order to demonstrate the widespread use of literacy and letters to sustain personal and institutional connections over great distances, it is also important to provide counterexamples from across the Roman Empire.

Carlisle, 27 miles (43.5km) from Vindolanda, has provided a comparable assemblage of wooden tablets of which 24 (dating to the late first to early second century A.D. in date) were judged as suitable for detailed analysis (*Tab. Lugoval.*: Tomlin 2003; cf. Tomlin 1991b, 1997, 1999). The closest parallel in northern Europe to the Vindolanda tablets is the archive of wax stylus tablets from Vindonissa, a mid- to late-first century legionary fortress in Switzerland occupied by both legionary and auxiliary soldiers, which has provided evidence for the daily activities and social relationships which existed at that site; however, little more than the addresses survive from these tablets (*Tab. Vindon.*: Speidel 1996; cf. Trumm and Brogli 2008). This assemblage provided 63 tablets suitable for analysis.

Documentary evidence forms a significant field of research related to Roman military identity in the eastern Empire, of which this study can only address a small part (Fink 1971, Alston 1997). Military archives on papyrus and parchment from the Eastern Empire were therefore also consulted in order to demonstrate the extent of Roman administration. The third century archive of the *Cohors XX Palmyranorum* at Dura-Europos in Syria provided 57 documents (*P. Dura.*: Welles *et al* 1959), while the fourth century archive at Dionysios in Egypt of the cavalry prefect Flavius Abinnaeus provided 78 (*Abb.*: Bell 1962; this assemblage proved the most problematic to quantify however, as some individual entries contained up to 50 letter fragments).

Despite their origin in contexts varyingly removed in terms of time and distance from first and second century Vindolanda, the daily accounts, receipts, reports and letters within these collections have sustained the bureaucratic image of the Roman military of which the Vindolanda tablets are a part (cf. Alston 1999). The latter three sites are also notable for incorporating legal documents not clearly represented at Vindolanda or Carlisle, such as contracts, as well as providing further examples of references to social and institutional relationships and gatherings. It is important to acknowledge that soldiers had other means of communicating over distances, from oral messages to wax stylus tablets, the contents of which are now lost. Alongside papyrological evidence, broken pots also provided a durable medium for inscribed messages and records (*ostraca*) in the context of the garrisons of Roman Egypt (Maxfield 2003). Although they were apparently not used in the northern provinces for this purpose, amphorae and plates were nonetheless often marked with graffiti or painted inscriptions (*dipinti*) identifying contents, volumes, dates of manufacture, or ownership, providing an additional glimpse into the market networks of northern Britain (Pearce 2007, cf. *RIB* II.4.2492-3).
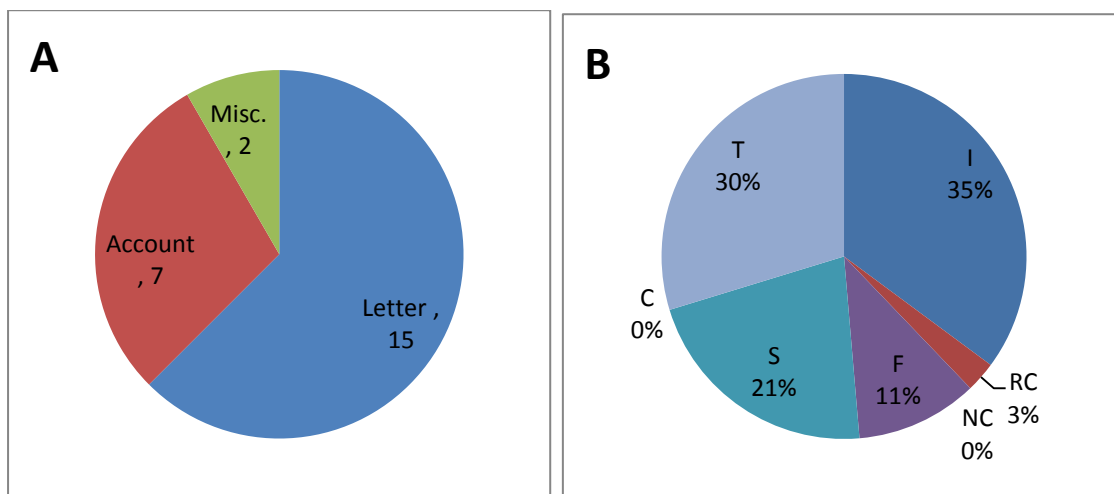
Figure 3.9. Carlisle writing tablets: types (A) and references (B). See Appendix **IV.1.2.**
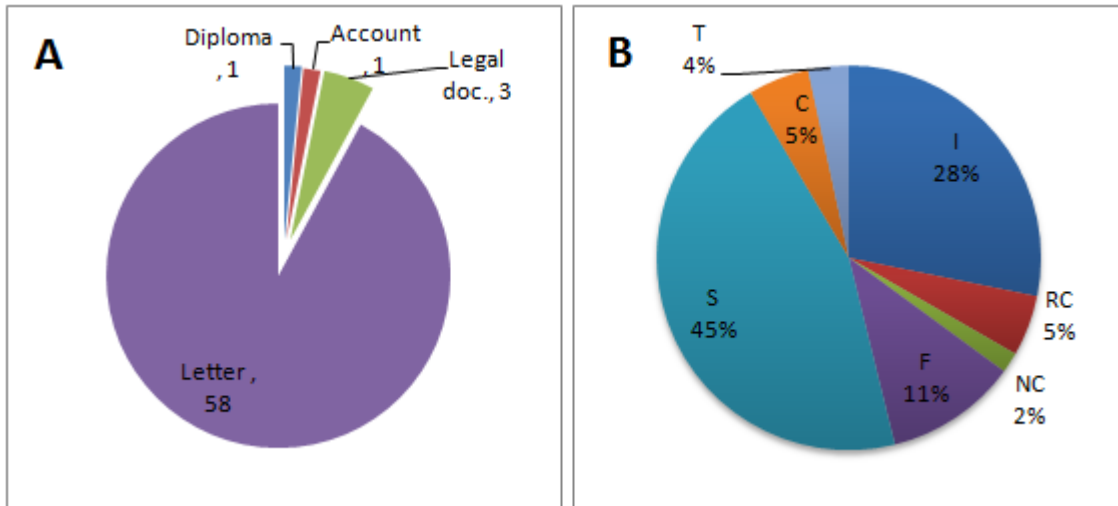
Figure 3.10. Vindonissa stylus tablets: types (A) and references (B). See Appendix **IV.1.3.**
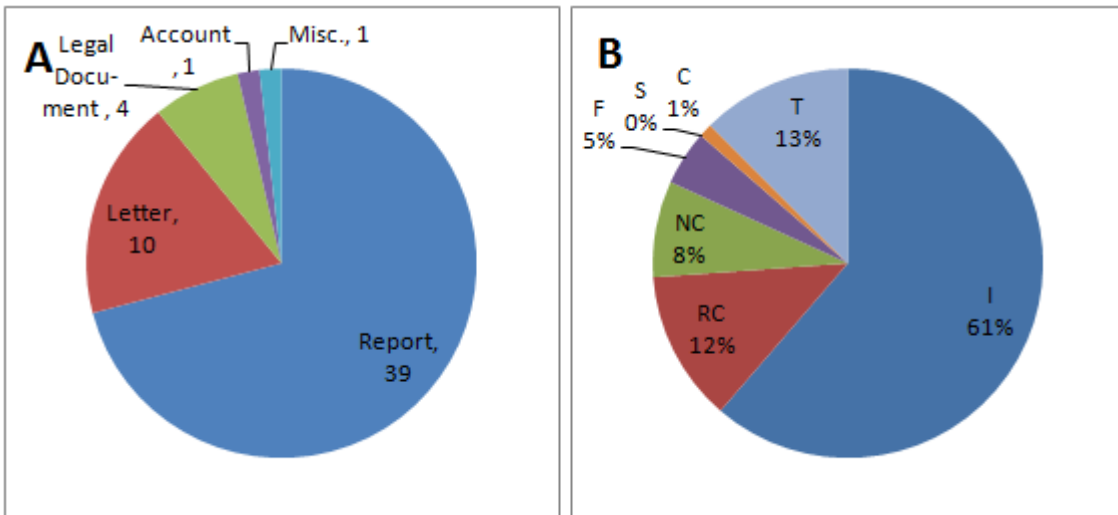
Figure 3.11. Dura-Europos papyrus: types (A) and references (B). See Appendix **IV.1.4.**
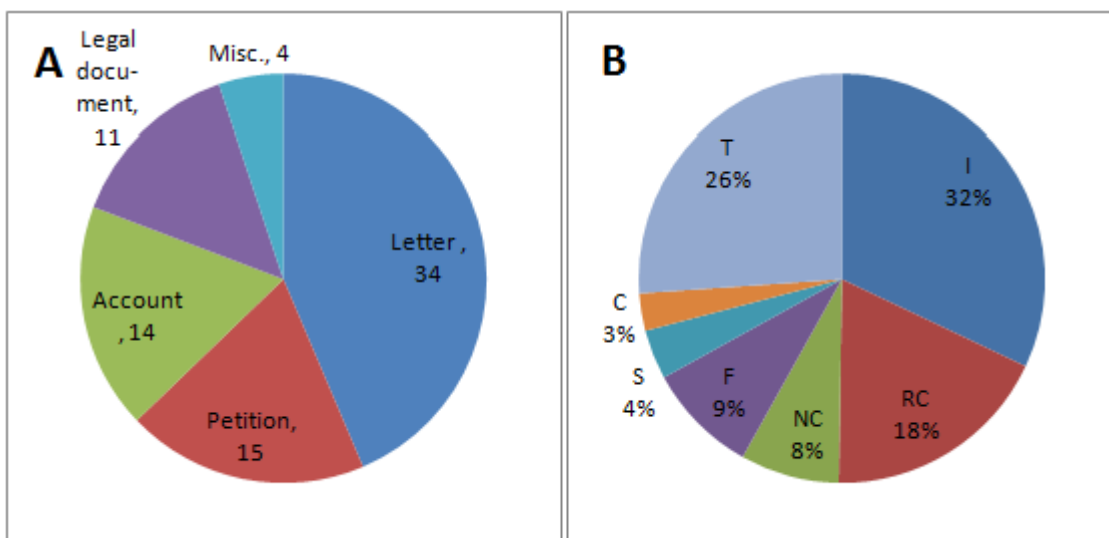
Figure 3.12. Abinnaeus archive: types (A) and references (B). See Appendix **IV.1.5.**

Despite the clear distinctiveness of each site's document assemblage (given the circumstances of the deposition of each, it would be more remarkable if the same pattern applied to all), a number of common themes can be clearly established. First is the prominence of institutional and trade references within the documents – most notably for the former at Dura-Europos, which is to be expected given the high proportion of 'report'-type entries from that site. Documents relating to trade and supply are tangential firstly to institutional identities, as military settlements (as discussed in the last chapter) required long distance supply to function, but also to social and familial identities, as these supply chains provided a means of supporting both family members and other dependants, and the network of traders who facilitated such systems. Second is the high proportion of letters at each site, demonstrating the importance of this form of communication across the Empire in maintaining social and economic connections. Third is how insular each site appears when the references to native society are compared, supporting our impression of Roman military communities as isolated from surrounding native populations on the northern frontier of Britain (cf. Mattingly 2006:174). Whether relationships with natives were not judged suitable for mention in correspondence with fellow members of the military community, or if we simply see less of them because they were negotiated with verbally are also possibly factors in this. The possible reference to an interpreter in a Period I tablet at Vindolanda in the context of barley supply also raises the possibility of a language barrier, perhaps especially during the earlier years of the occupation (*Tab. Vindol.* II.213; cf. Haynes 2013:304). These themes are explored further in the remainder of this section.

3.3.3. *Institutional analysis.*

First, the role of literacy within the institution of the military is discussed in order to provide context for this analysis. It has been recognised that the act of creating records can send a powerful message of dominance over the subjects, and the soldiers of the Roman military were no exception to this (Bowman and Woolf 1994b:1, Haynes 2013:318). From their recruitment, Roman auxiliaries were incorporated in a literate system of administration that kept permanent records of each soldier – indeed, soldiers were identified by the date on which they joined, as well as by their age and distinguishing physical characteristics (*RMR* 87, cf. *P. Dura* 121, 122). Subsequently they were known by the unit of which they were a member: the century or *turma* for a common soldier or cavalryman; the legion, cohort or *ala* for officers (Fink 1971:4). These records were used to allocate pay, leave, and eventually discharge diplomas and final disbursements (pay: *RMR* 68-73, diplomas: *RMD* I-V,

disbursements: *RMR* 77). As Haynes has argued, this system fulfilled a broader institutional need:

> '…[I]t was first and foremost about keeping soldiers under command, detailing their duties, overseeing their movements, delivering their pay, and ensuring that their material needs were met. A Roman army without bureaucracy would not have been a Roman army…Writing was at once the guardian of a soldier's entitlements and the instrument of his control.'

(Haynes 2013:318-9)

This control over the soldier's time reduced his ability to interact directly with others outside the military, but also validated his status within that community. As such I would develop upon Hayne's argument by making the 'greedy institution' aspects of this process clear. The keeping of records ran in conjunction with the military's disciplinary systems of course, and infractions could be harshly punished. However, the soldier gained materially and socially from his incorporation within this system of record-keeping, as did his dependants. This non-physical boundary on the soldier's activities and interactions therefore had a significant impact upon his socially constructed identity relationships (cf. Coser 1974:6).

At Vindolanda, the clearest indication of the control of individuals in this way comes in the form of the morning reports, strength reports, and work reports (*Tab. Vindol.* II 127-159, III 574-579). The soldiers' day began with a formal roll call, at which messages were read, daily tasks assigned, and watchwords announced – these seem to have been simple words or phrases such as 'Jupiter' or 'Security' (*P. Dura* 83, 89), invoking Roman culture and ideology with regards to the function of the camp (Speidel 1996:77-8; cf. *Tab. Vindol.* II 155). Religious festival days (e.g. *Saturnalia,* in Tab. Vindol II 301; as prescribed in the *Feriale Duranum*; cf. Fink *et al.* 1940; *P. Dura* 54/*RMR* 117) offered respite from the tedium of regular duties; feasts allowed for a break from monotonous diets, and the social gatherings that accompanied them reinforced collective identities through the assertion of broader social and cultural bonds. That these were held simultaneously, across the Empire, would have helped distant communities feel closer to one another, by means of a shared point of reference.

Only a tiny proportion of the written records created in each period and context of the Roman Empire have survived (cf. Pearce 2007). The documents created on a daily basis by the clerks and centurions of the Roman military (including daily reports, lists of supplies, brief messages between soldiers, officers, and family members) would total in the millions if they

survived. However they so rarely do that Roman scholars are fortunate to have single examples, such as *Tab. Lugoval.* 1, a record of the 3-day ration of barley and wheat allocated to cavalry troops at Carlisle. Tomlin has calculated that a million of these documents would be created over the course of a century; yet this tablet is, currently, unique (2003:178; cf. Fink 1971:242).

Entry into this military administration had an immediate effect on the identity of an individual. For some auxiliaries, taking on a military identity also meant losing an old one. An Egyptian soldier named Apion was given the name Antonius Maximus upon joining the army; in his letters to his family he signed with his new name, indicating the degree to which this had become part of his privately expressed identity (*BGU* 432, 632; cf. Davis 1989:20, Speidel 1996:83-4, Carroll 2006:258). I would identify this as a striking example of the Roman military acting as a 'greedy institution', staking claim to its recruits very identities and so isolating them from their former communities (cf. Coser 1974:9). However, this argument must be presented with caution. Many auxiliaries also retained their old names so as to preserve their familial connections, using their 'Roman' names in official military contexts (cf. Alston 1995:64-5, Burns 2003:257). Whilst there is an illusion of disparate ethnic identities represented in the mix of the mix of German, Greek, Roman and Celtic names given for Batavian and Tungrian soldiers named within the Vindolanda tablets, I would argue that this may still indicate ethnically homogeneous units with strong senses of common ethnic identity – a notion supported by the references to women with Germanic names (Sattua: *Tab. Vindol.* II 346, Thuttena: *Tab. Vindol.* II 310; Lafer 2008:81). Meanwhile the continuation of Greek names within the Batavian unit at Vindolanda following the dissolution of the imperial bodyguard suggests the retention an established tradition within Batavian culture (Birley 2002:99-100; cf. Birley 2001:253, 259-9). There is also no reason to assume that soldiers forgot their original languages, even if they could not use these in writing (Haynes 2013:302).

The extent to which military garrisons in northern Britain in the first two centuries A.D. were reinforced with recruits of local origin is a contested issue; it has traditionally been held as axiomatic that auxiliaries were recruited locally, or from the children of soldiers (e.g. Dobson and Mann 1973, Shaw 1983, Breeze 2006:41). This state of affairs would certainly support the notion of the Roman military as an enclosed, 'total' institution (Shaw 1983, 1984). This has however been contested in recent years (see Haynes 2013:123-9). True figures are difficult to quantify, given an absence of epigraphic or skeletal evidence for place of birth for

Roman fort community members in this region. However, the case for continued recruitment in the homeland for the Batavians at least in this period is strong (Derks and Roymans 2006, Driel-Murray 2009).

As noted above (**2.4.5**), the traditional identity of an ethnic military unit could be sustained through practices carried out by the institution; they were not necessarily reliant on a steady influx of recruits from the same geographical region. With little indication within the contents of the tablets of internal divisions within the fort community here on the basis of place of origin, this is an aspect of community that is poorly served within this case study (cf. Mattingly 2006:124).

The Roman military in peacetime did not operate continuously en masse; the breakdown of coherent units into disparate working groups was an everyday reality in the context of the bureaucratic operation of the fort (Saddington 1997:495, cf. Wilkes 2003). Although administrative documents appear impersonal and abstracted from personal statements of identity, the act of creating them was as much a part of daily routine within the fort communities as the actions and work reports they detailed, and due to their importance, to be entrusted with their upkeep must have been a position of significant authority – reflected in the close proximity of the administrative offices of the *principia* to the *aedes*, at the centre of the fort. This emphasised a connection between literacy and official power that must have been a recognised fact of life for members of the fort community (Bowman and Woolf 1994b:6-7, Bowman 1994:111-112).

To engage with and advance within this literate context, auxiliary soldiers must have learned how to speak and read Latin fluently, if they had not done so prior to recruitment (cf. Vegetius 2.19). How they did so remains an unanswered and infrequently addressed question, but educated slaves and fellow soldiers may have provided formal or informal education during their free time (Speidel 1996:81; for literate slaves at Vindolanda see *Tab. Vindol.* II 301, 302, 347). I support the suggestion that the writing exercises found at Vindolanda (*Tab. Vindol.* II 119, 121, IV 854, 856), that have been attributed to the children of Flavius Cerialis (Bowman 2003:88), may also indicate the education of illiterate soldiers (cf. Pearce 2004:45, Mattingly 2006:200-1, Birley 2009: 277-8). If so, I would further suggest that the fact that these exercises are passages of Latin texts such as Virgil's *Aeneid* and *Georgics* may be reinterpreted as uniting the elite of Rome with the soldiers of the frontier in a manner hitherto unexpected in Roman Britain (cf. Scappaticcio 2009). A few

references to Virgil's work had been found in the south of the province prior to the discovery of the tablets, but these had been few in number and restricted to civilian contexts (Barrett 1978; for the Vindolanda tablets in the broader British context, see Hanson and Connolly 2002, Cooley 2002). The use of these works in this context, with their particularly Roman martial and imperialist themes, may therefore be seen as a form of indoctrination of an appropriate auxiliary identity that reflected Roman cultural ideals; comparable to the ideology expressed through monumental and funerary art as discussed above. This holds true whether these particular exercises were carried out by the children of the commander (whose presence within the military community was marginal and temporary, and who were already Roman citizens) or by recruits of peregrine status. In either case, the pupil was incorporated into an exclusive system of communication that privileged the Latin language and literary tradition, even if it is not clear how this scribal training was organised (cf. Haynes 2013:327).

The effect of literacy on the soldiers was to enable efficient management of resources, and to allow them to form and maintain the long distance social, economic, and political relationships which sustained the broader military community. I would also emphasise here the benefit of such sustained communication with regards to offsetting the trauma of displacement that would have accompanied the movement of units between garrisons (cf. Segal 1986:18; for the function of architecture in this role see chapter four). As Cicero's letter to his brother above makes clear, relationships could be actively sustained over distance through such letters. It is likely for related reasons that literacy also expanded in the Batavian homeland under Roman rule, helped in part by the return of educated veterans at the end of their term of service (Derks and Roymans 2002:102, 2006). As will be discussed below, the use of literacy in this role at Vindolanda and other sites extended to those outside the military hierarchy as well, including the families of the soldiers. This process of dissemination weakened the role of literacy as a boundary for the military community, but would have enabled the smoother incorporation of recruits from this region into the military hierarchy. Language and literacy in this context provided a further social incentive for recruits to the *auxilia* (cf. Coser 1974:6). Of course, Latin fluency did not always ensure smooth relationships within the military; during the civil wars following the death of Nero, the boasts and insults of Batavian auxiliaries attached to the legions of Vitellius almost led to conflict between the two forces (Tacitus *Histories* 2.27). Civilis, the leader of the Batavian revolt and a former auxiliary commander, also used his knowledge of Latin to challenge Roman troops

(including his brother) to battle (*Annals* 2.10; Haynes 2013:302). As Haynes has noted, a universal language had its downside (2013:303).

3.3.4. *Literate communication, and social and familial bonds within the* auxilia.

Higher levels of literacy were an essential component of the identity of equestrian officers in the *auxilia*. On a practical level, they were expected to perform organisational duties, requiring knowledge of Roman law, politics, and logistics. In the absence of military academies, it was expected that this knowledge would be gained during the child- and young adulthood of aristocratic Roman males (Birley 2003a:5). An educated background served to connect the commanders within the fort community to a broader social network of peers, unavailable within the hierarchical confines of the fort itself, and drawn from across the military community as a whole. When young Roman equestrians sought commissions to command an auxiliary unit, they did so through patrons who entreated the emperor or provincial governors for positions on their behalf. These patrons described their clients' competence, and also emphasised their social accomplishments. Letters of reference from the lawyer and magistrate Pliny the Younger (A.D. 61 – *c*.A.D. 112), written on behalf of his clients, demonstrate the qualities that commanders hoped for in their subordinates. In one, he outlines the personal qualities of a friend, Voconius Romanus, who he is recommending for a commission:

> 'When we were students together, he was my close and intimate friend, my companion in the city and in the country… His conversation, his very countenance and facial expression, have a wonderful charm. Besides this, his intellect is outstanding, penetrating, gracious and easy, trained by his practice at the bar; indeed, the letters he writes would make you believe that the Muses speak Latin.'

> (*Letters* 2.13.5-9, trans. A.R. Birley 2003a:13).

It is unsurprising that for Pliny, a noted author and friend of the historian Tacitus, literacy was an important virtue, and within the social and economic context of Rome the client-patron relationship based on personal bonds was a long standing tradition (Curchin 1991:86, Alston 1995:126, Grahame 2000:86). That this was true across the command level of the Roman military may be suggested by some of the Vindolanda tablets. The Period III prefect, Flavius Cerialis, was probably himself a native Batavian noble, inheriting a command role which continued despite the revolt of A.D. 69 (Birley 2002:126). Given his likely age as an

auxiliary commander with a young family (around thirty), he would have not yet been born, or been only very young when the revolt ended and a peace agreement reached between the Romans and the Batavian people. The tensions of that period are reflected in the origins of the prefect's name – his *nomen* after the emperor Vespasian, his *cognomen* in honour of the general who had put down the revolt, Petillius Cerialis – but otherwise it seems that he and his peers among the Batavian aristocracy were incorporated into an educated order of Roman elites, which shared a common appreciation for Mediterranean culture, including literacy (Birley 2003:7).

Although Cerialis already occupied an official position, two letters associated with his tenure demonstrate his active participation in this reciprocal system of organisational advancement facilitated through social contacts. **II.12** is a draft of a letter written to a high-ranking official named Crispinus, in which Cerialis appears to be appealing for favourable appointments for his friends to enable him to have 'a pleasant military service' spent with his peers, engaging in appropriately aristocratic pastimes (Bowman and Thomas 2003:200-2). The close friendship he and his wife Sulpicia Lepidina seems to have enjoyed with fellow auxiliary commander Aelius Brocchus and his wife Claudia Severa, with the two men hunting together and the families meeting for meals, suggests that Cerialis was not lacking for such company (*Tab. Vindol.* II 233, 243, 244, 248, 291, 292; cf. Birley 2003:9-10. The social context of these encounters is analysed in chapter five, part three). Elsewhere in the tablets, Cerialis was the recipient of an appeal from a peer, requesting his support in delivering a petition of a client to the Centurion of the Region, Annius Equester, at Carlisle (**II.15**; cf. *P. Mich* 468, Campbell 1994:33).

Through these letters Cerialis engaged with the broader contexts of the Roman military's organisational structure and provincial elite society. The high standard of the written Latin in his letters (the product of much effort, if the studied use of archaic formal language in *Tab. Vindol.* II 225 is anything to go by) was a necessary component of the interactions between the higher ranks of the Roman military. The later Period IV context at Vindolanda also produced a fragment of a commendation letter, which described its subject as 'a good man [who has] added moral progress through a love of liberal pursuits…' (*Tab. Vindol.* III 660; Bowman and Thomas 2003:118-9). The standard of handwriting on this tablet is excellent, but it is not clear who wrote this, or on whose behalf it was written (although probably an auxiliary commander; cf. Birley 2003:5). However, it serves to demonstrate that the

maintenance and practice of patron-client relationships as practiced by Cerialis was not restricted to him and his immediate peers but continued in use amongst later occupants of the northern military zone.

I would argue that these letters of recommendation between commanding officers and elite civilians do not contradict our view of the Roman military as a 'total institution' that sought to prevent contact between institution inmates and outsiders, as such interactions were necessary to sustain a flow of ideologically appropriate recruits to the military's officer class – the 'supervisory group' within Goffman's model (1961:17-19) – and as authority figures representing the imperial power, commanders enjoyed the highest level of personal and political autonomy within the unit. As they were only temporarily resident within the fort community, they were also less bound by the restrictions on personal loyalties implicit to the 'greedy institution' model. This is especially emphasised by the commonplace presence of their family members within the *praetorium*. Commanding officers were separated from the elite civilian world by a slim margin compared to most of the soldiers beneath them, and so it is therefore not surprising to see a correspondingly looser grip on their time and loyalties. Given that their social status and prestige were sustained by the imperial and military systems, they could be expected to be the most reliable group within the military community, a point discussed above in relation to the family of Flavius Cerialis. As such they could be trusted overseers of 'ethnic warriors', even when their ethnicity was shared (see **2.4.3**).

For lower ranked members of the fort community, the situation can be expected to be somewhat different, as soldiers, their families, slaves and other dependants were fully incorporated within the institution of the military. The Vindolanda tablets also provide voices for these that demonstrate how literacy and literature delineated their identity within this institution. The subsequent analysis addresses the assemblage and identifes the forms of identity that were expressed through written communication at Vindolanda by the community as a whole, and assesses how representative these examples are of identity communication within the military community. This approach allows for the analysis of documents that survive as fragments as well as complete documents.

3.3.5. *Forms of address: reading the social and institutional hierarchy at Vindolanda.*

In this section, I analyse the data collected from the Vindolanda tablets, as discussed above and recorded in **Appendix IV.** It must be acknowledged that this data set represents only one

site, and that deposition biases affect the types of document that were preserved (a factor that will be returned to in chapter 5). However, as an insight into social networks within an auxiliary fort within the Northern Frontier it is nonetheless an invaluable resource. I begin by examining the forms of address used within the letters, as these provide an insight into the relative social statuses of the correspondants, and how the author identified themselves in relation to the recipient (see **Appendix IV.2.1** for the collated forms of address tables).

The tablets contain a number of standardised Roman forms of address which provide an indication of perceived status relationships within the fort community here. The Roman title *dominus/domina*, meaning 'master' or 'owner' is used in 60 addresses within the Vindolanda tablets, but this must be viewed alongside the fact that by the Imperial period this form of address had taken on a mainly generic meaning, indicating a polite acknowledgement of roughly equal status (Dickey 2002:89). The term *collega* ('colleague'), used in 10 letters primarily between prefects, may also have been used in this sense.

Frater ('brother') has 60 occurrences within the Vindolanda tablets. This was a common form of address between two men of equivalent social status, and was less obsequious a term than *dominus* (Dickey 2002:125). The term did not imply any great degree of intimacy, but appealed emotively to a broader connection – at Vindolanda it may frequently be seen as a term referring to a shared identity between soldiers, a 'band of brothers', and the invoking of a familial bond should also be seen as significant (Birley 2002, Dickey 2002:220; cf. Speidel 1996:80-1). The equivalent term for 'sister', *soror*, is used by Claudia Severa in her messages to Sulpicia Lepidina, the wife of Cerialis (*Tab. Vindol.* II 291, 292, 635). The relationship between Severa and Lepidina is reflected in the position and role of officer's wives within contemporary militaries; constrained by their husbands' duties and movements they have limited opportunity to sustain personal relationships outside the military community, but are provided the opportunity to do so within it (Segal 1986:22). In these interactions we can see a subversion of familial forms of address, as primary group networks and social relationships utilise the same language. Soldiers – and women following the military – were able to form connections with peers using this form of language when the 'greedy institution' of the military had isolated them from their original families.

There is an inherent ambiguity with regards to the usage of these familiar forms of address. Cerialis is referred to as both *frater* and *dominus* on two occasions in letters from fellow prefects (*Tab. Vindol.* II 248, 250). The use of obsequious language may reflect an intention

to flatter their recipient however; *Tab. Vindol.* II 248 (**II.14**) is a letter of recommendation whilst *Tab. Vindol.* II 250 (**II.15**), a letter conferring the authors' best wishes, refers to a meeting with the governor of the province. In both, an appeal is being made to Cerialis for the benefit of the authors. A further striking form of address is found in **II.29**, the request by Masclus for instructions (and beer). He addressed Cerialis with the phrase *regi suo*, 'to his king', a title that has caused some speculation as to the prefect's status amongst the Batavians under his command. This honorific has been interpreted as either referring to the continued role of the royal household of the Batavians even after the revolt of A.D. 69 (cf. Birley 2001, Cuff 2011), or as simply a polite form of address towards a patron (cf. Dickey 2002:106). As discussed in chapter one and above, the two did not necessarily have to conflict with each other and Cerialis may be viewed as having operated both as a symbolic reminder of the Batavians' heritage, yet also as the patron of his soldiers and supplier of securities in the form of food, drink, clothing and income. Requests for leave (*commeatus*) are in a standard form, but are addressed directly to Cerialis and make it clear that it is to his judgment to which they are appealing, rather than demanding a right (e.g. 'I ask, my lord Cerialis, that you consider me worthy to be granted leave'; cited in Bowman 1994:120). The use of '*rex*' within such a relationship demonstrates an acknowledgment of higher status without making an overt reference to rank – perhaps comparable to our 'boss' (cf. *praepositus*, the generic Late Roman military title for the commander of an irregular unit; Webster 1979:150). At the other end of the social scale, common soldiers and civilians also used both *soror* (e.g. 'sister Thuttena' in **II.18**) and *frater* (e.g. **II.18**, **II.36**, *Tab.Vindol.* III 646, 667, IV 868) in their letters, but there is difficulty in distinguishing genuine familial relationships from the broader use of these terms, especially considering the commonplace adoption of new names upon entering the military community. **II.32**, a letter concerning trade in grain, refers to the writer's father and is one of the few certain references to a blood relative (but cf. CSAD 2010, II 310 n.1-2).

For soldiers, the memories of personal connections were also communicated through the use of the address *contubernalis* ('messmate'), which occurs 10 times within the tablets. By invoking the memory of shared experiences (as Chrauttius did in **II.18**), the bonds established by sharing in military activities could be sustained despite separation in space and time, and regular communication through letter writing was a core part of this (as the Batavian Sollemnis tersely reminds his lax 'brother' and messmate, Paris, in **II.19**). Soldiers, especially veterans or those close to retirement, may have spent many years separated from

their original families, so it is not surprising that the primary group of the *contubernia* should take that role and rely on comrades for moral and practical support (e.g. the shipment of socks to *contubernales* in **II.22**; cf. Mattingly 2006:164).

The fort community at Vindolanda may also have included *collegia*, clubs formed by soldiers of junior officer rank or of a particular profession, and which are frequently associated with banqueting and collective drinking (Phang 2012). The evidence for these in northern auxiliary contexts is slight; potential clubhouses (*scholae*) have been identified at Corbridge and Vindolanda (A. Birley *pers. comm.*; cf. Birley 2003b:37-56), but written evidence is restricted to one Vindolanda tablet (*Tab. Vindol.* III 656).

> 'And yet I want it to be clear to you that I am withdrawing neither from the mess nor from the club unless that to the chief. But he saw me, perhaps(?), at the goldsmiths' or the silversmiths' and this is… '

> (*Tab. Vindol.* III 656. Period III.)

Collegia entrenched military identity by ensuring that members of the military community who may not have been able to rely on the support of *contubernales* could form their own primary bonds based on shared experiences and social status (cf. Ginsburg 1940, MacMullen 1984:445; a tombstone from Camulodunum implies the presence of a burial club there: *RIB* 205). Clubs could also be formed by soldiers seconded away from their home garrison, as a means of preserving these social connections over distances (Pegler 2000:39; it is possible that the Tungrians from Vindolanda acting as bodyguards (*singulares*) of Ferox sustained their relationship through such a group bond; **II.1**). *Collegia* also excluded those who did not qualify for membership, and so demarcated an exclusive sub-community within the settlement (cf. Burford 1972:161). Common soldiers were prohibited from joining such clubs due to the fears of ill discipline that came from socialising in this way, but promotion to the *immunes* and *principales* demonstrated enough loyalty and effectiveness to warrant this allowance (for auxiliary *collegia* see Pegler 2000:37-8). The unnamed writer of *Tab. Vindol.* III 656 feared he had seen by his commanding officer at a silversmith and a goldsmith, and that as a result – perhaps for breaching some internal code of behaviour – he would be excluded from this identity group. The *collegia* may therefore be seen as demonstrative of a powerful incentive to soldiers to dedicate themselves to the military way of life, whilst providing a means of physical and emotional support that they did not have to leave the fort

to find. In this sense, they may be seen as a facet of the 'greedy institution' of the Roman military as a whole.

Although women were marginalised within much of military life (see **2.3.2**), they nonetheless are represented within the tablets in a number of roles.   Relationships between female members of the fort community are alluded to in a Period III tablet, **II.34**.   This letter discusses a surprise gift for the *domina* ('mistress') of the correspondents, with the author warning the recipient to not have the message read aloud in the *domina*'s presence. Does that (indirect) form of address used in this context signify that the correspondents were slaves or servants of the unnamed mistress (given the context, perhaps Sulpicia Lepidina)? It has been suggested that the apparent illiteracy of the recipient (who requires another to read the message aloud) indicates that the correspondents were women (Bowman and Thomas 2003, CSAD 2010). Were they seeking to impress a woman with significant control over them? If so, what resources did they have to hand to acquire a gift in the first place? If not servants or slaves (following Dickey's argument against the use of *domina* by slaves; 2002:77), then might they have been other freeborn women living within the fort community – perhaps the wives of centurions, who may be expected to have interacted with the wife of the commanding officer (cf. Phang 2001, Giles 2012:80)?   Identifying the social status of subjects within the tablets is fraught with such difficulties.

In this section, I have examined the forms of address utilised within the tablets, and described the social relations that may be expressed through the use of these. However, this has not provided an uncomplicated image. We often do not know the full context in which letters were written, or what the precise status of the authors or recipients was (unless rank or relationship to the commander is explicitly stated).   However, we can see that written communication was utilised by all ranks of soldiers, as well as women and slaves in order to maintain social connections within the military community. In the next section, I identify references to interactions with locals, or non-members of the military community, in order to assess the extent to which personal connections were maintained or rejected – in keeping with the ideals of the 'greedy institution'.

3.3.6. *Interactions with locals.*

As noted above, interactions with local peoples and customs are rarely referenced within the Vindolanda tablets. The Period III report on the *Brittunculi* ('wretched Britons'; **II.3**) is a

frequently cited example of a negative representation of locals; this tablet has been varyingly interpreted as a military report on an enemy (cf. Bowman 2003:22-3) or as a report on the suitability of locals for conscription (Birley 2002:95-6). This hostile perspective is reflected in the draft petition from a grain trader in Period IV, (**II.21**) seeking redress for harsh treatment at the hands of a centurion (see **5.2.2**). Because he is a *homo transmarinus* ('man from overseas'), he believed it was inappropriate for him to receive corporal punishment despite being innocent of any crime, with the implication being that a local Briton may indeed expect such treatment (Grønlund Evers 2011:18-19; cf. Juvenal *Satires* 16). The fact that Britons are referred to in the broadest possible sense, by region rather than by tribal affiliation, may indicate that they are being essentialised as a barbaric (and apparently inadequate) Other. Unlike the Batavians, they did not appear to meet the requirement of being worthy foes or allies (see **2.4.2**).

This focus on the *Brittunculi* may have obscured other examples of benign interaction, however. **II.21** was written on the back of an account of minor transactions, *Tab. Vindol.* II 180, which shows that despite being an 'overseas man', the trader was closely involved with many members of the fort community; disbursements are shown to 'the oxherds at the woods' and 'Amilis at the shrine' (l.9-10). The possibility remains that the oxherds were locals, but still excluded for the most part from the fort community. **II.33** (Period II) discusses the use of *de carris Brittonum* ('the carts of the Britons') to transport grain to the site, although it is not clear if these were requisitioned or hired, an important distinction (Bowman 2003:39; see **3.5.5**). Carts or 'chariots' were a core element of funerary ritual in Iron Age North Yorkshire (Giles 2012:190-3; cf. the cart burial at Newbridge, Fraser *et al* 2010); although it would be dangerous to compare the Roman period significance of wheeled transportation to this earlier manifestation, it is worth considering that this transaction may have had more than a mercantile significance for the natives. If the carts were requisitioned, the imposition may have been viewed as a cultural attack, leading to further resentment. If not, the carts can be viewed as a source of both cultural and economic capital, with which locals could negotiate more favourable treatment. In either scenario, by Period V carriages were being made and repaired within the workshops of Vindolanda (*Tab. Vindol.* III 600, IV 862 = **II.38**). The extended supply network of the Roman military has been discussed at length recently (cf. Grønlund Evers 2011, Mairs 2012), but the tablets provide an insight into the otherwise invisible stages of this process.

The evidence for interactions with locals presented within the tablets appears indicative of a form of economic expediency on the part of the garrison, rather than any significant rapprochement. It is notable that the carts – whether requisitioned or hired – belonged to the 'Britons', rather than to members of a particular tribe. This amalgamation of regional identities into a whole in this late first century context is suggestive of a social distanciation between military communities and the populations of surrounding settlements. This could be seen as a consequence of the Roman military acting as a 'greedy institution' as outlined in chapter one. This distanciation between military and local communities will be interpreted in greater depth in subsequent chapters.

3.3.7. *The evidence of the other case studies.*

The Vindolanda tablets constitute by far the best document assemblage from a single site in the northwestern Roman Empire. However, the other assemblages discussed above have also produced documents that contribute to our understanding of the communication of identity through letters and other records. At Carlisle, the letters complement those sent between soldiers at Vindolanda, with frequent reference being made to 'brother' and 'colleague' soldiers, as individuals and as groups (*Tab. Lugoval.* 18, 19, 27, 42-3) – although with the two sites so close together this is hardly surprising.

 The tablets from Vindonissa too reveal a range of social relationships that were sustained through the writing of letters. *Tab. Vindon.* 40 is a letter written to fellow soldiers in the garrison by an auxiliary who had returned home on furlough, but is homesick for life in the fort (Speidel 1996:82). Another, *Tab. Vindon.* 45, is an invitation to a soldier to a social gathering involving feasting, wine and gaming with dice (1996:79). The presence of good morale within a fort is rarely so clearly attested as it is in these two tablets; the camaraderie that must have existed and been supported through such shared activities (or the remembrance of such, in the case of the soldier on leave) was an important aspect of military life and a clearly positive side effect of military membership (1996:81). As at Vindolanda, women are authors and recipients of letters (Secundina: *Tab. Vindon.* 41; Vindoinsa: *Tab. Vindon.* 42; Belica: *Tab. Vindon.* 44; a romantic liaison is alluded to in *Tab. Vindon.* 30), but it remains difficult to ascertain whether they were family members, slaves or freedwomen.

The archive of Dura-Europos, consisting mainly of administrative documents, contributes much to our understanding of the bureaucratic character of the Roman military. The *Feriale*

Duranum (*P. Dura* 154) indicates the central role the Roman religious and political calendar played in military timekeeping. Other documents relate to the management of soldiers; not just morning reports (such as *P. Dura.* 82-9), but also letters of recall to soldiers stationed elsewhere (e.g. *P. Dura.* 66). In Egypt, the fourth century archive of the prefect Flavius Abinnaeus provide an insight into his involvement in the supplying of food to the cavalry garrison at Dionysius, his role in the taxing of nearby communities, and his client-patron relationships with the Emperors Constantius II and Constans I, and with his peers (Bell 1962; food: *Abb.* 4, 78, taxation: *Abb.* 4, 5, 9, 27, 66, 67, 68, patronage: *Abb.* 1, 25, 31, 59). Abinnaeus was also involved in local legal cases, sometimes involving his own soldiers (*Abb.* 44-57; cf. Alston 88-92).

3.3.8. *Summary*

The documents of the Roman military are the closest we can get to the conversations held between the inhabitants of fort communities and between members of the broader military community, and they reveal a broad set of relationships and identities referenced over distances. Letters between old mess-mates reaffirmed primary group bonds (see **1.2.2**), whilst those between senior officers referenced a distinctively Roman process of social advancement. These letters also contextualise our understanding of the social implications of the reciprocal exchange of gifts and other forms of trade within military communities (Grønlund Evers 2011; cf. Mauss 1990).

By their nature, records of individual soldiers could be kept for long periods of time within the archives of the fort, as they provided a necessary basis for identification, important for the payment of wages, for savings, and eventually for allowing retirement after 25 years. (Records relating to building plans may have been kept longer. The uncompleted first century elliptical building in the fortress at Chester was rebuilt and completed in the third century, perhaps indicating that the original building plans were retained; Mason 2000, 2001:77-9). Most letters were however fleeting examples of communication, with references to identity inferred rather than explicitly stated.

3.4. *Discussion.*

In this chapter, I analysed a broad variety of epigraphic and iconographic sources for their function with regards to communicating identity over distances of time and space. This was done with the aim of analysing the institutional boundaries of the fort community – the 'total'

barriers of the walls and restrictive regulations, and the 'greedy', socially constituted and self-applied, labels. By examining text and iconography in a range of contexts, a cross-section of discursive techniques could be attained. This approach best enabled me to examine the validity of the 'greedy' institutional model in the context of the Roman military community.

The first subject of study was epigraphy and iconography on stone, in the form of Roman military and funerary monuments. This category of artefacts emphasised communication of some of the traditional ideals of Roman culture, within a context of military and political pressure. It was noted that in Roman Britain, such representations on funerary monuments were not representative of the elite of Rome, but represented a means by which the socially disadvantaged could establish a stronger position in death than they had when alive (**3.2.4**). This is a reminder of the culturally transformative effect attributed to the service of 'martial races' within an imperial military, and to the social cohesion that emerged from such statements (see **2.5.5**). In incorporating 'greedy institution' theory into this analysis, I contributed to the existing research by addressing the underlying motivations and broader social context behind these acts (a perspective lacking from e.g. Haynes 2013). This also allows us to re-examine the relationship between the identity categories as established by Mattingly (2011:217). Epitaphs and dedications indeed allowed particular forms of identity to come to the fore, and in the case of memorials such as that of Regina at South Shields, even some that appeared to run contrary to the norms of the military community. Key to this process was the adoption by those of non-Roman origin of symbolic markers originating in the Roman cultural context. As Coser explains:

> 'Being insulated from competing relationships, and from competing anchors for their social identity, these selected status-occupants find their identity anchored in the symbolic universe of the restricted role-set of the greedy institution.'

> (1974:7-8)

Even the expression of non-Roman origins could be manipulated into membership of this particular role set. The humble origins of Regina, as a British slave then military wife, may seem to conflict with her visual representation as a Roman matron; yet this process of reinterpretation of identity into the 'symbolic universe' of the military community has already been made clear through her commemoration in text, in this Roman fashion. That it was a medium that allowed her ethnic identity to be displayed is nonetheless significant, especially

when compared to the *Reitertyp* tombstones which, like the military monuments, emphasised a resistance to non-Roman identity.

Following this, I analysed the documentary archives of Vindolanda and Carlisle within the region of the northern frontier, and parallel sites from further afield. This was done in order to acquire an understanding of the symbolic and functional boundaries of the fort community as expressed through quotidian forms of communication, and as such provide a counterpoint to the overt expressions of identity made through epigraphy. I identified and categorised a range of identities extending from association with the Roman state, to familial and social connections, to identities associated with craft, industry, and trade. The letters and archives were a central aspect of Roman life, and a medium through which identities based on correspondence and shared experiences could prosper. The effect of military membership extended the importance of literacy to family members and other dependants of the military community, including traders. Letters enabled the military to function as a cohesive community, despite being spread out along the length of the frontiers of the Roman Empire. Most importantly of all, they also required soldiers to actively engage with Roman language and culture; not only was literacy essential to career progression within the military for all ranks (cf. Haynes 2013:328), it was also an essential means of framing and displaying social identities, both within the fort community and to outsiders. Through these, soldiers positioned themselves firmly within the military institution; yet they were also able to sustain relationships with friends and family members, despite geographical separation. This is incompatible with a'total institution' interpretation of the Roman military, but entirely in keeping with the 'greedy institution'. Soldiers could sustain these social and familial relationships, whilst devoting their time and energy to the military institution.

These written sources in isolation can tell us only a little of the daily practices of everyday life carried out by members of the fort community. To discuss the latter we need to address the archaeological record of the northern frontier in more detail. The following chapters cover the physical contexts in which these textual identities were created, displayed and maintained; firstly in the form of the physical ordering of space, and subsequently in the arenas of embodied material culture. The identity categories introduced within this chapter also provide a framework for this analysis.

Chapter four: Space and identity in Roman auxiliary forts: a re-examination of the development of the built environment and institutional architecture of the Roman military.

4.1. *Introduction*

The fort, as an icon of Roman civilisation, has been seen as a means of communicating Roman values across the empire (e.g. Collingwood Bruce 1851). This paradigm has been called into question as Roman military scholars increasingly view the military as being a coherent identity group in its own right, distinct from the civilian world (Goldsworthy 1996, Haynes 1999a, 1999b, James 1999, Roymans 2004, Nicolay 2007, Mattingly 2011:221). It is argued here that the built environment of the Roman military was central to the establishment and negotiation of identities within these communities. The forts of the Roman Empire were not simply workplaces but were rather complex living environments which owed much in form to Roman urbanism. This argument has been presented before (cf. Speidel 1999, Lendon 1997:247, Haynes 2013:146). However, it is important to note the specific, culturally transformative aspects of these environments on members of the fort community. Like contemporary Forward Operating Bases they covered a range of functions; they were strategic centres, sheltered accommodation, supply depots, recreation hubs, even industrial sites (Wong and Gerras 2006; see *fig*. 4.1). Buildings contained the social life of the fort, and were themselves socially constituted objects (cf. Markus 1993:*xix*).

I argue here that the architecture of the Roman military community was the product of a Mediterranean urban ideology which contrasted with that of the indigenous populations of the frontier regions. It will show that non-citizen recruits to the Roman *auxilia* were integrated into a way of living over which they had little control. First, I will outline the origins and development of the built space of the Roman fort communities of the northern frontier of Britain, and examine the 'standard plan' context in relation to key case studies in this region. I discuss how fort architecture shaped social interactions and thus relational identities within these sites. I then interpret these sites as institutional architecture, and draw upon urban and institutional archaeology in order to resituate the design of the 'standard plan' fort within this framework. It will be demonstrated that the 'standard plan' fort design did not form an absolute barrier restricting movement of soldiers or non-combatants (although controls were certainly in place), and that its most significant role was in framing all professional, social

and economic relationships in a manner attributable to the character of a 'greedy institution' – by imposing the ideology of the Roman military as a common reference point.

The social role of architecture is often lost in the passive understanding we have of buildings we encounter in everyday life, interpreting them solely in the context of their primary function. This functionalist approach to built environments does not allocate any specific meaning to the forms of buildings themselves. Grahame has identified the influence of Goffman's dramaturgical analogy behind this perspective in modern academic opinion; within this framework human beings are actors who play roles within a biological narrative, or 'drama' (Grahame 2000:1; Goffman 1959, 1963). Built environments are 'stages', which are meaningless without the actors or the archaeological or historical reminders of their actions (2000:1). I follow Grahame in instead arguing that buildings should be seen as active constituents of identity; in Giddensian terms, as both the medium and outcome of social interaction (cf. Giddens 1984:281-4). The ubiquitous nature of the architecture of the Roman fort within the military community, as a mundane physical setting, also means its influence over members was universal and subtle (cf. Eco 1997:195).

Figure 4.1. Reconstruction of the auxiliary fort of *Segedunum* (Wallsend), at the eastern end of Hadrian's Wall (after English Heritage 2007).

Although auxiliary forts, especially those of the Hadrian's World Heritage Site, are amongst the most prominent of Britain's Roman sites, the architectural remains of military communities have rarely been analysed from a theoretical perspective. James' description of the study of Roman forts as a 'stale and introverted' discipline (2006:35) has held true for many years, with only recent works challenging orthodox functionalist interpretations that originated with colonial military authors (cf. Allison 2006b, 2013, Becker 2006, James 2002, 2006). Discussions of Roman military sites are often dominated by identification of building-types, garrisons, and dating; the key reference work on Roman auxiliary forts, Johnson's *Roman Forts* (1983) does not stray significantly from these aims. Recent studies (e.g. Shirley 2001, Richardson 2004, Walthew 2005) have furthered our practical understanding of fort and camp design, but are rooted in an interpretative approach based upon the exigencies of construction. For Richardson, the building of camps was governed by the educated understanding of a core of engineers of the principles of ergonomics, work-rates, and standard operating procedures (2004:67). This approach rationalised the actions of the Roman military, but did little to bring us closer to understanding the lived experience of individual soldiers, why these sites took the form they did, or what influence they had on the people who lived within or alongside them (Becker 2006:36; cf. Brewer 2000, Johnson 1983).

The reluctance with which Roman military studies has incorporated theoretical approaches from other disciplines, as discussed in chapter one, is especially felt in this area of research. This may be contrasted with the archaeology of civilian sites in the Roman world, where there has been greater use of methodologies such as spatial analysis (e.g. Lawrence and Wallace-Hadrill 1997, Clark 1998, Grahame 2000, Allison 2004). The wealth of archaeological data represented by the forts of the northern frontier provides an opportunity for the use of such analytical techniques that address the importance of built space to the social life of the inhabitants of these sites; indeed, there have been significant recent advances in this regard (e.g. Gardner 2007a, Allison 2013).

The affective properties of architecture within a Roman military context have rarely been addressed; the most significant recent contribution has been by Gardner, who argued in his discussion of military identity in Late Roman Britain that whilst Roman forts have been examined on a morphological basis, 'relatively little critical attention has been focused on the social consequences of the relationships of different types of buildings to each other, and the

arrangements of groups of buildings across sites' (2007a:99, cf. Davison 1996:180, Wells 1999). Utilising Giddens' Structuration theory (1984), Gardner addressed how the military community in Britain changed during the decline of the Empire in the fourth and fifth centuries. His study of the affective role of architecture is a key influence on this chapter (2007a: 99-105, 223).

Another important recent work which has utilised spatial studies in the context of Roman military spaces is Allison's *People and Spaces in Roman Military Bases* (2013). Allison sought to utilise archaeological evidence to identify and locate activities carried out within different spaces within the fort based on the presence of small finds such as tools and dress fittings, an approach based upon her research on Pompeian households (2004, 2006a). As in her previous work on this topic, she was particularly concerned with identifying the presence and activities of women within Roman military spaces (cf. Allison 2006b); this research goes some way towards normalising their presence within German forts and fortresses (2013:342). Her methodology is returned to in the next chapter, when I discuss archaeological approaches to material culture, but her findings regarding the gendered use of space within forts provides an important parallel for my discussion below. This chapter develops this research by analysing the institutional setting of the auxiliary fort, in order to identify how the key characteristics of the forts of the northern frontier of Roman Britain may have affected the construction and maintenance of identity within the associated communities. The aim is not to describe the construction of frontiers such as Hadrian's Wall, or of the forts themselves (although some building processes are addressed in **5.4.2**), as this topic has been addressed comprehensively by recent scholars (e.g. Taylor 2000, Shirley 2001, Hill 2004, 2006). Instead, this chapter explores the ideological underpinnings of fort architecture, situating the discussion within its historical context, and drawing on contemporary debate concerning institutional and military identities, as well as the use by archaeologists of the 'standard plan' model.

In the first section, the evolution of the permanent Roman military fort on the northern frontier from the fortresses and camps of the Republic and early Empire is discussed. The plans of a number of forts in Britain are compared in order to evaluate the strengths and weaknesses of the archaeological concept of the 'standard plan'. The analysis then turns to the architectural elements of the fort community and their role in social and official life, utilising the Giddensian concept of 'encounters' or day to day interactions with others

(1984:72). The final section of the chapter reassesses the institutional character and underlying principles of the Roman military. The development of Roman urbanism is discussed in this section, and utilised to establish a new framework of understanding of 'fort-life', contrasted with 'life in forts' in Roman Britain (cf. Wacher 1997:408). As life in Roman towns was shaped and directed by the architectural rules that governed them, so too was life in Roman forts. It is true that the Roman military was an occupying force; an institution that utilised martial violence (threatened and actual) to control the indigenous population of frontier provinces, including Roman Britain (cf. Mattingly 2007, 2011, James 2011). It must also be appreciated that this institution also exerted considerable control over its constituent members, through both threatened and actual violence, and through the incorporation and exclusion of certain forms of social encounter. In this context, we may return to the concepts of the 'greedy' and 'total' institutions and assess how these may be applied to this architectural context.

4.2.1 *Defining the institutional environment: The history and development of the auxiliary fort.*

> 'The recruit should also learn how to build camps…since if a camp is properly constructed, soldiers spend days and nights secure behind the ramparts, as if they seemed to carry a walled city about with them everywhere.'
>
> (Vegetius 1.21.)
>
> '[The camp] is a second abode for the soldier, its ramparts take the place of city walls and his tent is the soldier's dwelling and hearthside…'
>
> (Livy 44.39.5.)

From the earliest periods of Roman imperial expansion, castrametation, the daily construction of camps, was an important ritual for soldiers on campaign (see **2.2.3**). Providing shelter and defence for entire armies, these were simple enclosures, consisting of a ditched embankment surmounted by a palisade of stakes. Within these, the leather tents of the soldiers were arranged in ordered ranks, in the manner of the early colonies founded by Rome during her expansion into Italy (Johnson 1983:1, 222; cf. Frontinus *Stratagems* 4.1.14, Plutarch *Pyrrhus* 14). These early marching camps left little archaeological evidence of their occupation (Welfare and Swan 1995:1), but a number of historical sources tell us how they were laid out, and by what names interior areas were known to the Romans. These descriptions cover over three hundred years, but demonstrate that there was an exceptional level of continuity in the organisation of space within the temporary fortified camps of the Roman military.

4.2.2 *The Polybian Camp*

The Greek historian Polybius provides our earliest account of the Roman marching camp. Writing in the mid-second century B.C., he described a theoretical camp designed for two legions and associated allied troops within a consular army – 16,800 infantry and 2,400 cavalry (Polybius *Histories* 3.26: troop total, Richardson 2004:11, *tab*.2.1, *contra* Johnson 1983:27; cf. Dobson 2008:66-121). The square camp, 2017 Roman feet per side, was surrounded by a ditched embankment with four gates (see *fig*. 4.2). The focal point of the camp was the general's tent (*praetorium*), from which the surveyors (*metatores*) took their initial measurements. Three roads divided the plan of the camp: the *via principia*, which ran in front of the *praetorium*; the *via quintana*, in parallel to this road; and a further road passing directly between the main gate and the *praetorium* (*Histories* 27-9, Johnson 1983:27-8). The tents of the two legions take up half the space either side of this road (arranged by their battle positions – see Appendix **I**), along with their attached allies, and the remaining space was taken up by the bodyguard of the general (1983:28-9). The rampart was separated from the tents by a 200 foot gap, to which Polybius assigned a defensive function, but also allowed the sheltering of cattle and booty within the palisade (*Histories* 31, Johnson 1983:29).
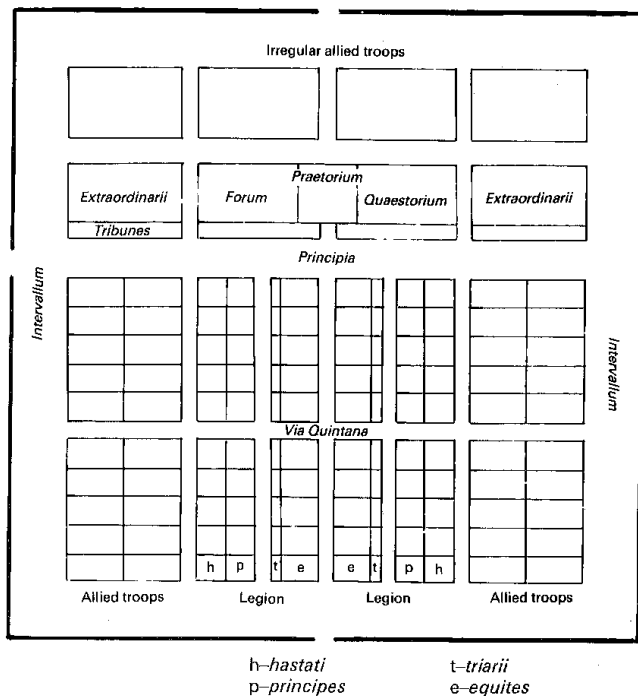
Figure 4.2. The Polybian camp (after Johnson 1983:28, *fig*.15).

Polybius sought to explain the dominance of Rome within the Mediterranean world to a Greek audience (Dawson 1996:111, Richardson 2004:11). He attributed this to the differing

practices of the Greek and Roman armies. Whilst the Greeks took advantage of the defensive properties of landscape features, the Romans imposed order over nature – demonstrating their domination over the natural world (Phang 2008:70). A regularly planned fort, its layout maintained between sites as the campaign progresses, is better suited to the organization of large numbers of men than the *ad hoc* approach used by the Greeks, Polybius argued (*Histories* 42). He drew parallels between the camp and the Roman town; the regular street plan characteristic of both enabled the individual to position himself within a predefined spatial hierarchy. The camp was, for Roman legionaries raised within an urban context, a home away from home (*Histories* 31, 41). Its form from this point took on an ideological function, inextricably linked with Roman urban space even when the practical logic for this no longer applied.

4.2.3. *The (Pseudo-)Hyginian Camp.*

The Polybian plan endured within the Roman military. Preserved in a manual for military surveyors dated to the third century A.D., *De munitionibus castrorum* ('On the Fortification of Military Camps') describes a vast marching camp of the Imperial period. Its authorship by Hyginus Gromaticus (or 'Pseudo-Hyginus') during the reign of Trajan (A.D. 98-117), is controversial, as is its date (Johnson 1983:27 and Richmond 1925[2004]:77 support a third century origin; cf. Lenoir 1979:111). Despite these difficulties, it provides a standardised organisation of Imperial legion and auxiliary units (Gilliver 1993:33; **Appendix I**).

Designed to accommodate three legions and associated auxiliary units (c.40,000 men), the Pseudo-Hyginian camp held over twice the population of the Polybian camp (Pseudo-Hyginus 30; Johnson 1983:29, Gilliver 1993:33, Richardson 2004:29, *tab*. 3.6). Although attempts have been made to place this enormous army within the context of an historical campaign (e.g. Domitian and the Danubian wars in A.D. 85-9 (Frere 1980), Marcus Aurelius and the Marcomannic wars (Birley 1981)), this was most likely a theoretical exercise demonstrating the rules of camp construction in the author's period (Richardson 2004:25).

Like the Polybian camp, this was an orthogonal enclosure punctuated by gates (2320 x 1620 Roman feet), with the interior divided into four regions by two roads (the *via principia* and the *via decumana*), and another running from the the *praetorium* to the front gate, the *porta praetoria* (Johnson 1983:29-30). There are additional features too, including a *valetudinarium* (hospital) and a *veterinarium* (Johnson 1983:30). However, the arrangement of the soldiers within the camp also reflected changes in the Roman military. Although the

tents of the officers remained the focal point of the camp, the arrangement of the citizen- and non-citizen soldiers is distinct from the Republican precedent. Whereas the Polybian legionaries occupied the central regions of the camp, here they occupied the perimeter; the *auxilia* are restricted to the interior. For Pseudo-Hyginus, the citizen troops could be relied upon to maintain the integrity of the camp, whereas the non-citizen auxiliaries could not (Pseudo-Hyginus 2). The latter were contained and distinguished within the camp by architecture and location compared to the citizen soldiers. They did not yet hold a position within the political and military hierarchy that allowed them to be trusted (see **2.4.3**).
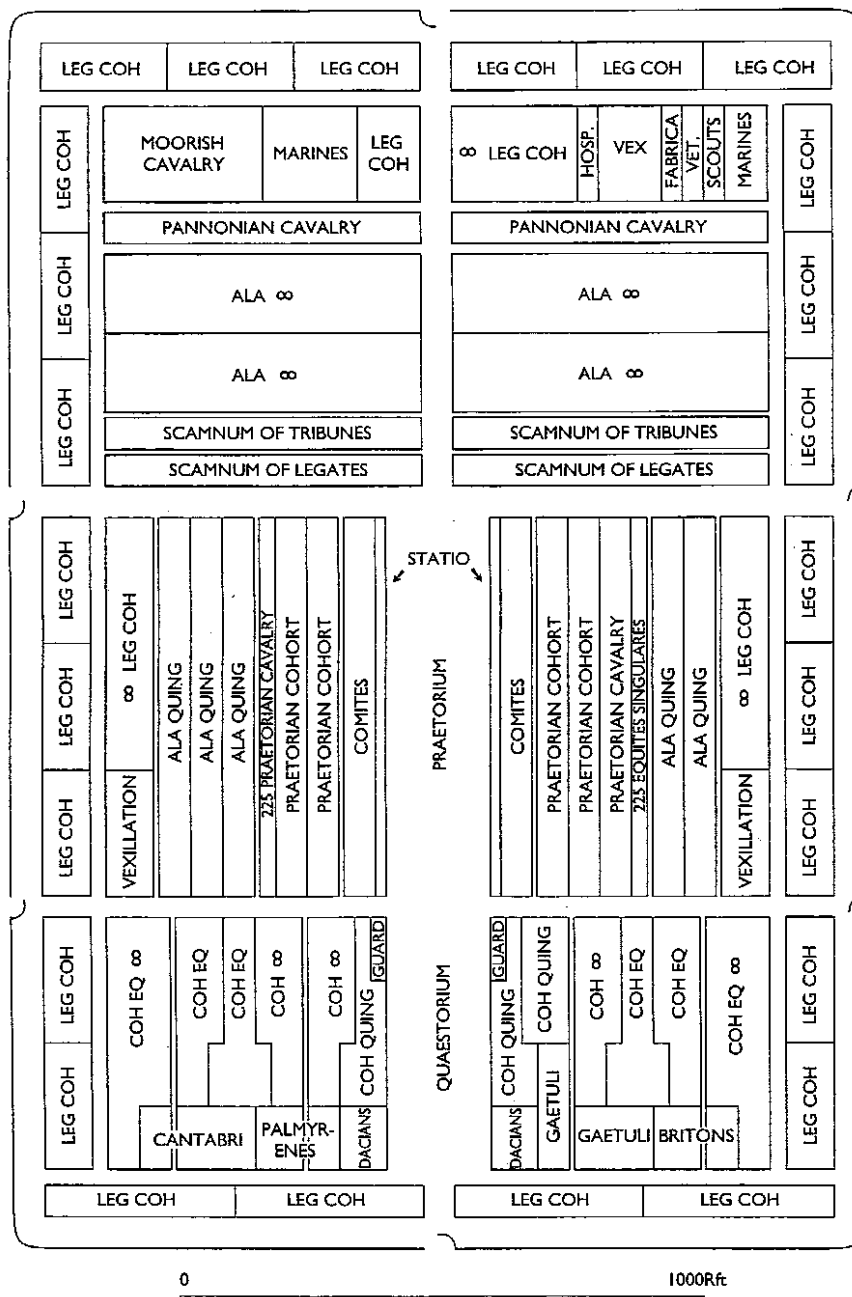
Figure 4.3. The Pseudo-Hyginian camp (after Gulliver 1993:36, *fig*.2).

Other discussed aspects of fort design included the defences (48-54), and orientation and placement - the *porta decumana* should be on high ground, the *porta praetoria* should face the enemy (56) – but Pseudo-Hyginus also emphasises the minute details. The amount of space occupied by each category of soldier is given in precise detail; the implication being that these may be used to plan the size of camps for smaller subdivisions of military units (cf. Richardson 2000, 2004, Walthew 2005).

4.2.4. *Life in camps, or camp-life?*

These two accounts provided archaeologists with a framework and vocabulary with which to study the organisation of the armies on campaign. As theoretical models of the Roman military, they offer an idealised perspective of the behaviour of the soldiers. For these authors, the strengths of the regular camp plan in both the Republic and Imperial periods lay in how it rationalised space and allowed the rapid encampment and deployment of troops and animals; the utilisation of such a system required soldiers sufficiently disciplined to take advantage of it, and the process of constructing the camp was one means by which such discipline was instilled – equivalent to the drill of modern armies (Phang 2008:69; see **1.3.5**). That ancient authors recognised this function is clear from the emphasis given to constructing camps even in safe regions (Pseudo-Hyginus 49, Vegetius 1.21-5; cf. Phang 2008:67-70).

For foreign observers of the Roman military on campaign, the camp served as a powerful metaphor for Roman imperial dominance; it also justified their subordinate position. A later counterpart to Polybius is the Jewish historian Yosef ben Matthias, also known as Titus Flavius Josephus (Shaw 1995:360; cf. Eckstein 1990). Josephus was born in the province of Judaea, and commanded Jewish forces during the Jewish revolt (A.D. 66-73). Following the siege of Yodfat in A.D. 67, he surrendered to the future Flavian emperors Vespasian and Titus, and subsequently dedicated his account of the conflict to them (Shaw 1995, Phang 1998:74). Josephus emphasised the role of Roman discipline in the defeat of the Jewish forces; he had even attempted to apply Roman military organisation and discipline to his own soldiers (*Jewish War* 2.577-82). In one section, he describes Roman soldiers on campaign, setting up camp and organising the watch, and embarking the following day after dismantling and burning their camp (*Jewish War* 3.70-109). Josephus, like Polybius, likened the camp to a city, the exemplar of rationality and good order, reconstructed within the wilderness (cf. Stambaugh 1988:250, Shaw 1995:371). Within this discourse, Roman soldiers (legionary and auxiliary were not distinguished) are disciplined and well-ordered; no action was taken

without a command, and leadership is emphasised throughout (3.72-87). What Josephus describes is essentially the model of mechanical obedience favoured by early modern military strategists (Foucault 1977:143, Phang 2008:70, James 2002; cf. Whiston 1899:567). Josephus contrasts this with the barbaric disorganisation of his own people, which ultimately caused their defeat (*Jewish War* 3.475).

Josephus was not unbiased. Following the war he enjoyed a close association with the Flavians, receiving land, houses, money and citizenship from Vespasian. His name reflects this debt to his Roman patron (*Vita* 422; Shaw 1995:366-7). It is therefore not unexpected to identify in his work an idealisation of the armies commanded by his patrons (cf. Goldsworthy 1999:198-200). Like Polybius, he was an outsider seeking both to explain the Roman hegemony in the Mediterranean world and to justify the inability of his home nation to counter the Romans in the field. Both attributed Roman successes partially to divine blessings but primarily to their discipline, especially as displayed in the construction of marching camps. Against an unstoppable force, the only rational path was acquiescence (*Jewish War* 109; Eckstein 1990:208). Accounts which praise Roman discipline can also found in works such as the *Oration* of Aelius Aristides and the *Epitoma rei militaris* of Vegetius. These are eulogies to Roman military excellence; in the case of the latter (written in the late fourth/early fifth century A.D.), for a period in Rome's history that had long since passed (1.28, 2.3).

These accounts reflect an idealised view of the Roman military written by those separated from the practice of castrametation by space (being non-Roman) and time (discussing non-contemporary events, in the case of Vegetius). The representation is of ordered, rational discipline, expressed within and formulated by the construction of the marching camps, in complete obedience to the social hierarchy (Alston 1995:5). Yet Roman writers were aware that the Roman military was by no means as controlled a body of men as these writers suggest. The discipline made manifest through the regular construction of camps was not simply a training exercise, but a means of actively controlling the soldiers through the repeated reconstruction of an area of space that could be watched and regulated to prevent unmonitored assemblies; the work required to level the ground and excavate the ditch draining them of excess energy (Phang 2008:67-70, James 2011:170). Here the 'greedy institution' of the military was at its least subtle.

The strength of the standardised plan of the marching camp lay in its simplification of the complex social, cultural and organisational hierarchy that existed within the Roman military, assigning each a physical location within a mental map of the imagined camp – laid out by the *groma* of the surveyors and the measuring rods of the centurions - that could be speedily relocated. Castrametation gave each soldier a clear role, from clearance to guarding the site. The digging of the perimeter ditch in particular was an arduous task that emphasised the role of the individual in a group accomplishment, repeated whenever the army moved. These temporary sites represented the bringing together of labour in a communal act of construction, with the end result a fortified, inhabitable space, in which the communal identity of the soldiers (within the military as a whole, but also within the subgroups of the cohort, the century, and the *contubernium*) was both implicated and located. The positive associations of this action with regards to the soldiers' sense of place and identity, and the establishment of *esprit de corps*, have been discussed by Driessen (2007). Driessen argued that the construction of the marching camp also entailed the reconstruction of the encamped community's identity as whole unit, with the largest camps – such as those of the Augustan campaigns in Germania in the late first century B.C. – representing the culmination of training and validation of the soldiers themselves (2007:161). Display of martial identity was not restricted to battle but could be constructed, expressed and validated through regularly repeated acts of communal labour (*contra* Goldsworthy; see **2.2.4**): primary group bonds were enforced when working shoulder-to-shoulder on these massive feats of architecture. Indeed, this could be their primary function. Driessen cites the Augustan legionary camp at Nijmegen (*c*.16B.C.); the defences were greatly out of proportion to the threat posed by locals (especially if native Batavians lived in and around the camp itself). These were not so much functional barriers against enemy attack as a physical reification of Roman, communal, military identity within the social context of the Batavian region, impressing this identity upon the local auxiliaries present at this site (2007: 157, 161). Roman camps were not unusual in the context of the Late Iron Age for this fundamentally symbolic value. The debate over the intended purpose of hillforts in Britain has similarly moved on from functional, defensive interpretations (James 2007, Sharples 2007). Military accommodation was not restricted to these temporary sites. The same essential rules of layout were to be repeated in the permanent developments of the camp.

4.2.5 The winter-camps and permanent forts and fortresses of the Empire.

As Roman imperial expansion extended into Spain, Gaul, Greece and North Africa during the mid- to late-Republic and into the Empire, it became necessary to provide winter quarters for soldiers to maintain garrisons in these distant lands (Johnson 1983:222, Salvatore 1993:23). These were more comfortable and secure than camps; some internal buildings were made of stone, and turf or stone foundations were sometimes provided for tents to facilitate drainage (Johnson 1983:223; the Augustan legionary fortress at Oberaden contained timber buildings for centurions, although their men remained tented, Davison 1996:164). These features can also be traced to fortified siege camps outside walled towns (Johnson 1983:228). The few examples of Republican winter forts known demonstrate that the theoretical model of Polybius was not always followed. During the early- to mid-second century B.C., a number of fortified camps were built during the siege of Numantia in Spain, including a hilltop camp at Renieblas that held two legions and their auxiliaries (Salvatore 1993:24; cf. Dobson 2008). Although features such as the *praetorium* were present, the layout of the legionary barracks conflicted with the Polybian description, with each taking the form of a square - three rows of double-rooms surrounding a central courtyard (probably used to tether pack animals or mounts), in contrast to the regular rectangular blocks seen in the auxiliary area of the camp (Johnson 1983:223-5). This camp and others at Numantia in this period have irregular perimeters to fit natural features in the Greek manner, again in contrast to the Polybian ideal in which landscape was levelled in accordance with Roman rationality (Dobson 2008:414).

The difficulties archaeologists face in tracing the presence of the Roman military also apply to the late Republic and early Principate. Although Caesar campaigned extensively in Gaul and the Rhineland, few of his camps (and no internal buildings) have been identified. His literary output is of marginal use; his focus was usually on the fortifications (e.g. *Gallic War* 7.72-3, 8.9, *Civil Wars* 1.41-2, 2.24-5). As an experienced commander writing at a time when many of his peers had seen military action, the camp layout was too mundane to discuss at length; the disciplinary function of the ditch was however emphasised within these passages.

The campaigns of Augustus, Drusus and Tiberius in the late first century B.C. and early first century A.D. provide scant evidence of camp layouts (Schnurbein 2000:29). Traces of interior buildings at Dangstetten, Rödgen and Haltern do however demonstrate gradual developments in camp layout. At Haltern, the administrative offices and the commander's

quarters were divided between two buildings – the *principia* and the *praetorium* respectively – and at other Augustan forts, the barracks adopted a standardised ground-plan of back-to-back rows of *contubernia*, as in the Polybian and Pseudo-Hyginian plans (Johnson 1983:230-4, Blagg 2000:139, Schnurbein 2000:34). Fortresses of this period were primarily campaign bases, intended only for short term occupation, and followed the terrain rather than engineer around it (2000:37).
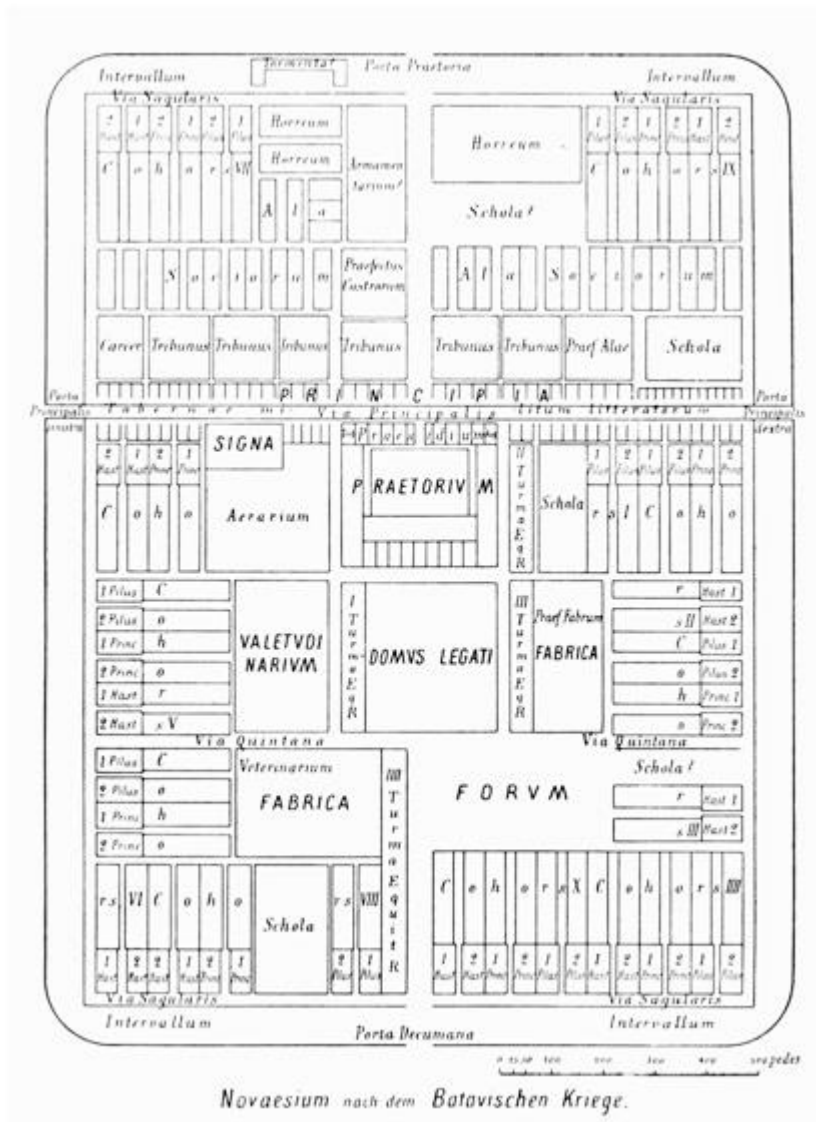
Figure 4.4. The late first century fortress of Neuss (after Koenen 1904:111-2, *fig*.89).

Significant developments to the fort plan came in the Claudian period (A.D. 41-54), when a policy of consolidation led to the establishment of permanent military bases. These adopted the 'playing card' form of the Pseudo-Hyginian camp and its 2:3 plan ratio (Johnson 1983:234. Pseudo-Hyginus 21), and were initially timber built. Novaesium (Neuss) in Germania demonstrates the ordered layout of the first century A.D. fortress at its clearest; the

fortress features the tripartite division of districts (*praetentura, latera praetentura, rententura*) that is distinctive of military architecture in the Empire (see fig. 4.4). This establishes the development of the fort plan by the invasion of Britain in A.D. 43. Having examined their origins and ideological underpinnings, the analysis now turns to the continuation of these design trends on the northern frontier.

4.2.6 *The invasion and occupation of Britain.*

The Roman conquest and occupation of Britain have been discussed at great length in a number of volumes in recent years (e.g. Salway 1997, Mattingly 2007). The focus here is on the changing patterns of camp and fort construction, between the invasion of Claudius in A.D. 43, the campaigns in the north by Petillius Cerialis and Agricola in the later first century A.D., the establishment of the northern frontiers of the Stanegate, Hadrian's Wall and the Antonine Wall in the second century A.D., and the Severan campaigns in Scotland in the early third century A.D.
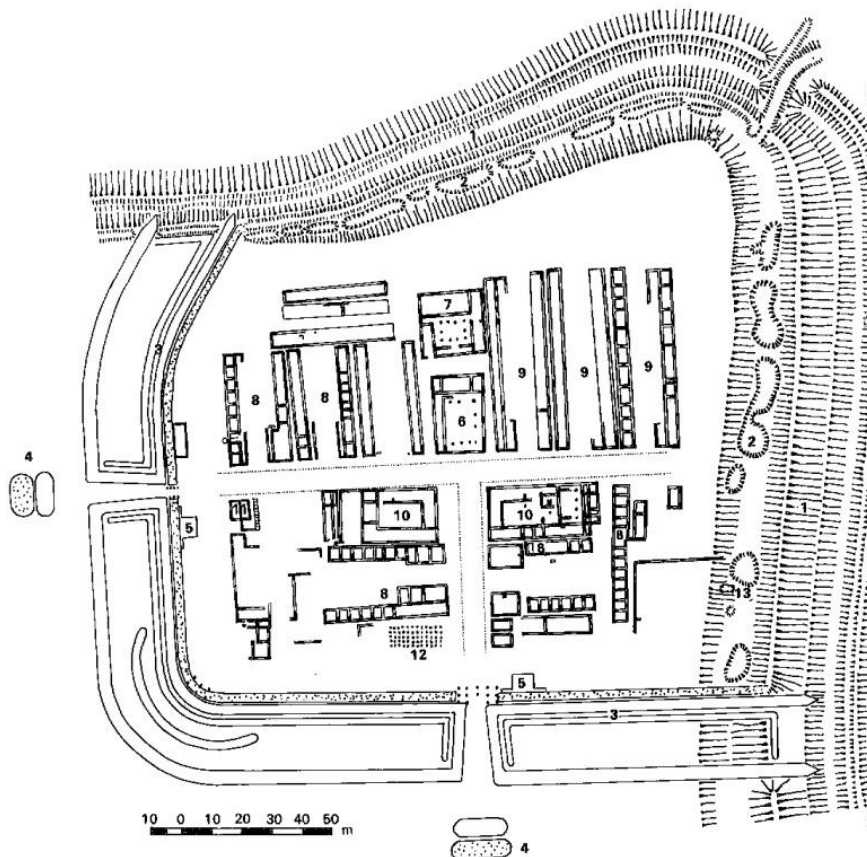
Figure 4.5. Hod Hill (after Johnson 1983:242, *fig*.182).

In A.D. 43, the marching camps and permanent forts were not yet fixed in plan. The campaigns of the future emperor Vespasian, commanding the Second Legion Augusta, along the south coast of Britain left archaeological evidence of conquest period encampments (Suetonius *Lives of the Caesars* 8.4.1). At Hod Hill in Dorset, the fortifications of the hill fort were reused to provide two sides of a winter fort (see *fig*. 4.5). The fort garrison was a mixed force of legionary infantry and auxiliary cavalry (based on small finds), and the street plan, as with Valkenberg, was oriented around the longitudinal *via principia* (Johnson 1983:241; Richmond 1968). Hod Hill demonstrates the pragmatism typical of the planners of marching camps in this period, again opposing Polybian order (*fig*. 4.6[1], cf. Welfare and Swan 1995, Dobson 2008:414).
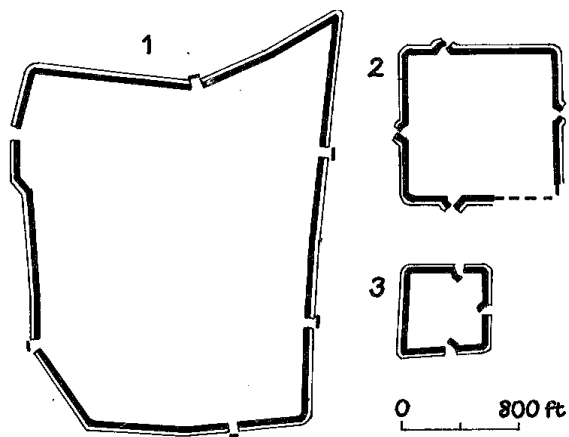
Figure 4.6. Plan of marching camps at (1) Raedykes (2) Dalingrass and (3) Swine Hill (after Wilson 1980:11, *fig.*7).

Hod Hill was part of a system of vexillation forts in which both legionary and auxiliary troops were stationed (certain auxiliaries, including Batavian units, may have been stationed *en masse* in some; Hassall 2000a:64). These forts were occupied for short periods of time, as winter-camps or mustering stations during the initial period of conquest, and little evidence survives of their internal plans (Johnson 1983: 243-4, cf. Hassall 2000a).

The reign of Nero (A.D. 54-68) saw a continuation of the pacification policies of Claudius throughout the north-western Empire. Despite a number of setbacks in Britain (including the Boudican revolt and continued resistance among the Welsh tribes) that called for an intensification of military activity, there is limited archaeological evidence for sustained campaigning (Johnson 1983:247-9). A number of atypical fort plans can be traced to this

period; including the fort at Bagington (*c*.A.D. 60) which contained an unparalleled circular wooden arena (*gyrus*), possibly used to train cavalry horses (1983:249).

The next significant period of standardisation of fort plans came during the Flavian period. Following the civil wars in A.D. 69, the legionary emplacements along the northern frontier were reorganised and reconstructed in stone. The modified fortresses, such as Vetera (II), Mainz, Bonn and Neuss, adopted a standard form intended to hold only one legion; this plan was to become typical of fortress plans over the course of the first and second centuries (see *fig*. 4.5; Johnson 1983:250). This standardisation also applied to auxiliary forts.

4.3.1 *History and variation of forts in Britain: case studies from the northern frontier.*

By the late first century A.D., the auxiliary fort had adopted a (relatively) standardised plan that accommodated the requirements of military life. Being based on the marching camp, this would have been immediately familiar to any soldier within the Roman military. The advantages of this system during campaigns, where large numbers of people and animals need to be relocated on a regular basis without losing their organisational coherency, were significant. As garrisons became increasingly static, the traditional fort plan appears (to us) as anachronistic. Military organisation is typically conservative, but the lack of substantial development between the temporary camps and the permanent forts is as noteworthy as the establishment of a standard form in its own right.

My analysis here utilises multiple case studies from the north of Britain to demonstrate the heterogeneous nature of fort layouts, even within this generalised framework. A number of 'standard plans' of auxiliary forts have been offered over the years, often using well-excavated forts such as Wallsend or Housesteads as a basis for comparison (e.g. Wilson 1980, Johnson 1983:35, *fig*. 19). Each highlights principal features of the fort (albeit rarely all of them), focusing on the internal buildings and extending no further than the perimeter ditches. Despite the apparently universal nature of the 'standard plan', there were degrees of variation across the Roman Empire; it is now regarded as impossible to assign garrison types to forts based on their plan alone (Bennett 1986:712, Wells 1996:138, Hanson 2007b:655, *contra* Richmond 1955:304-6, Breeze and Dobson 1969, Hassall 1983). Nonetheless I argue here that the 'standard plan' remains useful as a means of understanding the structuring of space within a fort. The example provided below has been chosen for its inclusion of features such as the *valetudinaria* and the differentiation between infantry and cavalry barracks.
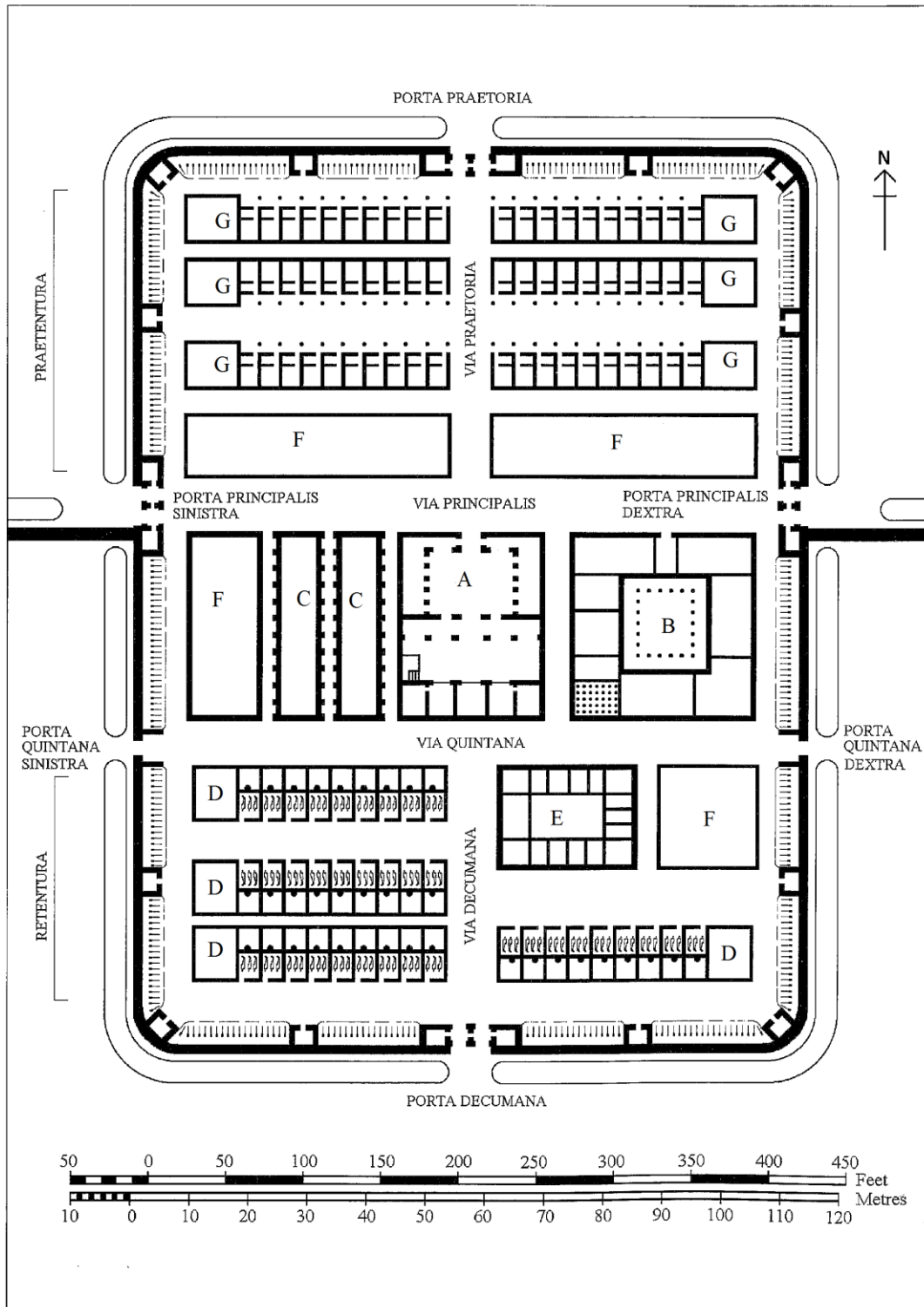
Figure 4.7. A generic auxiliary fort of Hadrian's Wall with a *cohors equitata* (part-mounted garrison), showing features and plan typical of 1st/2nd century A.D. forts – Wall forts having gates before and after the curtain wall (adapted from Hill 2006:30, *fig*. 7), with key components and streets labelled.   A: *Principia* (headquarters building) B: *Praetorium* (commander's house) C: *Horrea* (granaries) D: Cavalry barrack block (individual cells represent *contubernia* for three soldiers) E: *Valetudinaria* (hospital) F: Store buildings and workshops G: *Centuriae* (infantry barrack blocks).

The example shown here is not representative of all British forts but it serves to illustrate the key elements of the internal fort plan. The applicability of the 'standard plan' can be addressed through examination of forts from northern Britain, dating between the late first and early third centuries A.D.

4.3.2 *Issues with topographical and architectural reconstruction.*

A drawback of using reconstructed site plans from excavation reports is that they are often self-justifying. The existence of a fort plan, once taken as axiomatic, is applied to the archaeologically excavated contexts; the resultant plan is then used to justify the 'standard plan' model (the same applies to Roman towns; Kaiser 2011:2). Hanson highlighted these shortcomings by contrasting the reconstructed plan of Fendoch fort with the area actually excavated (2007a:45-6, see *fig.* 4.8 below; cf. Hodgson 2009:365). The regular rows of the barrack blocks in this plan were reconstructed with the form of the overall structure already accepted; an understanding of the Roman military that emphasised efficiency completed the rest (Richardson 2000, 2006, Walthew 2005; *contra* Davison 1996:174).
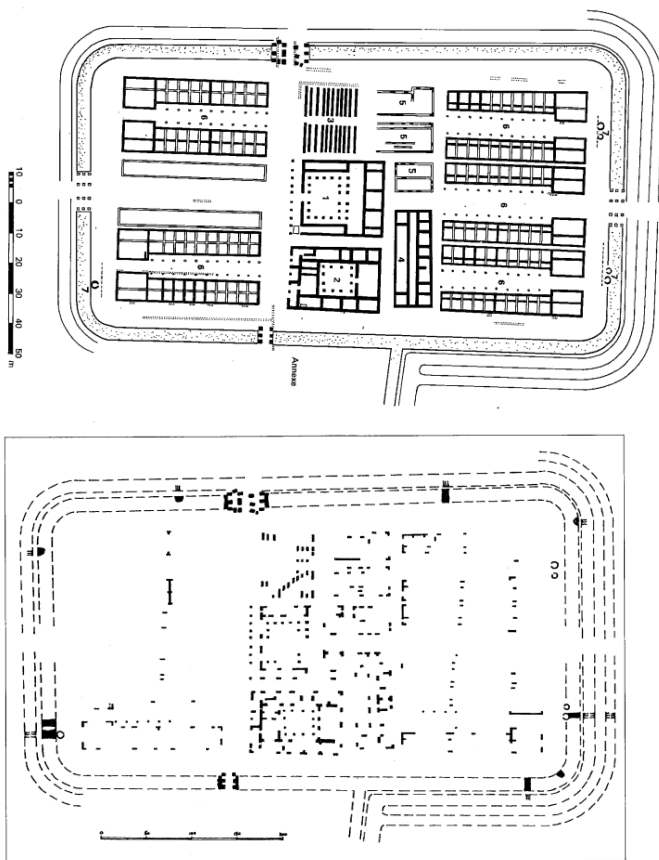
Figure 4.8. Two plans of the Agricolan fort at Fendoch: above, the reconstructed plan (after Johnson 1983:256, *fig.*191), below, the area actually excavated (after Hanson 2007a:46, *fig.*13).

Similar reconstruction problems exist with the above-ground appearance of military architecture. Whether or not Hadrian's Wall had a wall-walk has been one topic of contention; such debates tie into the perceived role of the structure (cf. Bidwell 2008a:129-43). Elsewhere on the Wall, the reconstruction of the watch towers is problematic, with multiple proposed forms considered viable (see *fig*. 4.9; the absence of large nails from turret sites may preclude the timber galleries of (b) and (c); Allason-Jones 1988:218-9). As Roman military architecture rarely survives much above foundation level, reconstructing the visual and spatial properties of Roman buildings remains a matter of informed speculation.
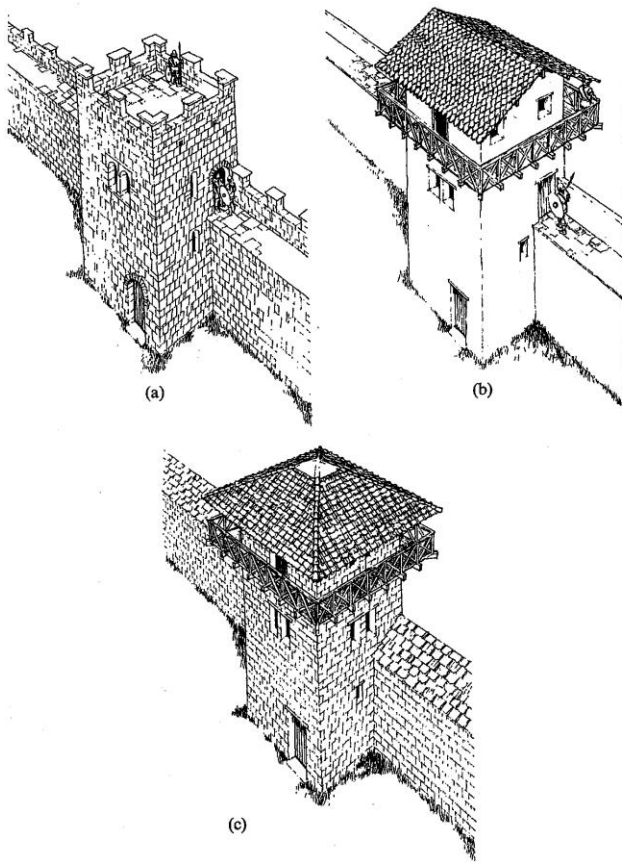
Figure 4.9. Proposed reconstructions of Hadrian's Wall interval towers. These are conjectural, reflecting different responses to adverse weather conditions (after Symonds and Mason 2009a:49, *fig*.63).

In the following section, several key fort sites on the northern frontier of Britain are analysed. These sites have been excavated to varying degrees of completion and each offer a specific insight into how the 'standard plan' has been developed, applied, and challenged. The history of each site is also summarised, to contextualise the discussion of small finds in chapter five.

4.3.3. *Case study one: Elginhaugh.*
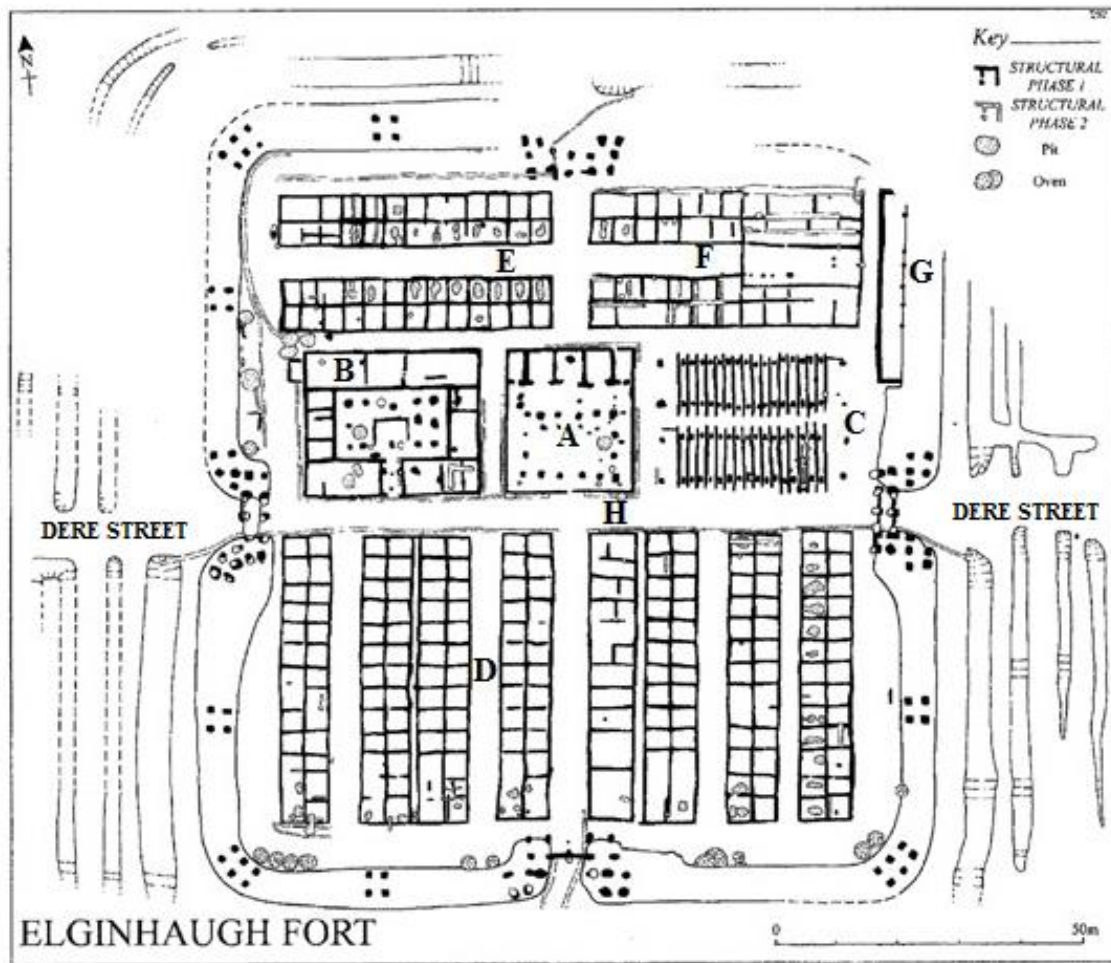
Figure 4.10. Elginhaugh fort, in Midlothian, Scotland. 'The most complete fort plan'. **A** = *Principia.* **B** = *Praetorium.* **C** = *Horrea.* **D** = Barracks 5-7, 9-12. **E** = Barracks 1-2. **F** = Barracks 3-4. **G** = Workshop. **H** = Building 8, strip building (after Hanson 2007a:47, *fig*.14).

The timber fort of Elginhaugh, in Midlothian, Scotland, was built and occupied from *c*.A.D. 78 to *c*.A.D. 86, corresponding to the Agricolan campaigns in Scotland. Following the death of Vespasian, a period of consolidation saw permanent forts being established along Dere Street, the main north-south road on the east coast (Tacitus *Agricola* 23). Elginhaugh was built to guard this road, which formed the *via principia* of the fort (2007a:48). Hanson argued that the garrison was a detachment from a quingenary cavalry wing (2007a:79). This was based on the interpretation of all the barracks being occupied by cavalry; an alternative view put forward by Hodgson was that only the five barrack blocks in which urine soakaways were found were certainly occupied by cavalrymen, and that the others may instead be interpreted as infantry barracks (similar soakaways have been identified at South Shields and

Wallsend; Hanson 2007a:67-9; cf. Sommer 1995). The fort could therefore accommodate a part mounted garrison (Hodgson 2009:367).

Elginhaugh is exceptional due to the nature of its occupation and how it was excavated. As the site was only briefly occupied, the usual palimpsest of forts visible at other sites did not accumulate; the metalling of the fort interior following the withdrawal of the garrison also preserved the foundations of the internal buildings (Hanson 2007b:650). The site was subsequently used for the corralling of livestock, whilst the *fabricae*, the well of the *principia*, and the embankment and ditch possibly remained in use (Hanson 1997:374). The site was completely excavated by Hanson in 1986-1987 as a rescue dig (Hanson 2007a:2-4). Unlike similar excavations in Scotland, at the legionary fortress of Inchtuthil and the auxiliary fort of Fendoch, the plan of the fort was completely uncovered, rather than extrapolated from keyhole trenches (Hodgson 2009:365; cf. Richmond and MacIntyre 1939, Pitts and St. Joseph 1985). The fully excavated internal plan of Elginhaugh makes it an excellent benchmark for comparison of auxiliary fort plans, especially for the earlier timber forts.

4.3.4. *Case study two: Vindolanda*

> *Haec tibi a Vindolanda scribo...hiberna* – 'I write this to you from Vindolanda where my winter-quarters are.'

> (*Tab. Vindol.* II 225 = **II.12**; Bowman 2003).

Vindolanda, the find place of the tablets discussed in the previous chapter, lies near the centre of the Tyne-Solway isthmus, on the Stanegate supply route and linear fort network, and so was a strategically important location for the Romans (Hodgson 2000; cf. Dobson 1986). Its Celtic name translates as 'white lawn', possibly a reference to the shadow cast by nearby Barcombe Hill that sheltered the plateau from the morning sun in winter, and was likely local in origin (Birley 2002:50). The first timber forts were built in the late first century, replaced by a stone-built fort in the mid-second century (2002:61, Bidwell 1985, Birley 1994:3, 2009:183). The focus here is on the early timber forts rather than the stone forts, due to the nature of the material culture excavated from these contexts. Anaerobic conditions at Vindolanda have allowed for exceptional preservation of organic material, (Birley 1994:11). These include the wooden writing tablets, discussed at length above (**3.3.-**). The leather assemblage is also substantial and significant, being relatively closely dated and clearly

associated with architectural features of the early wooden forts (Driel-Murray 1993:3; see **5.2.2**).
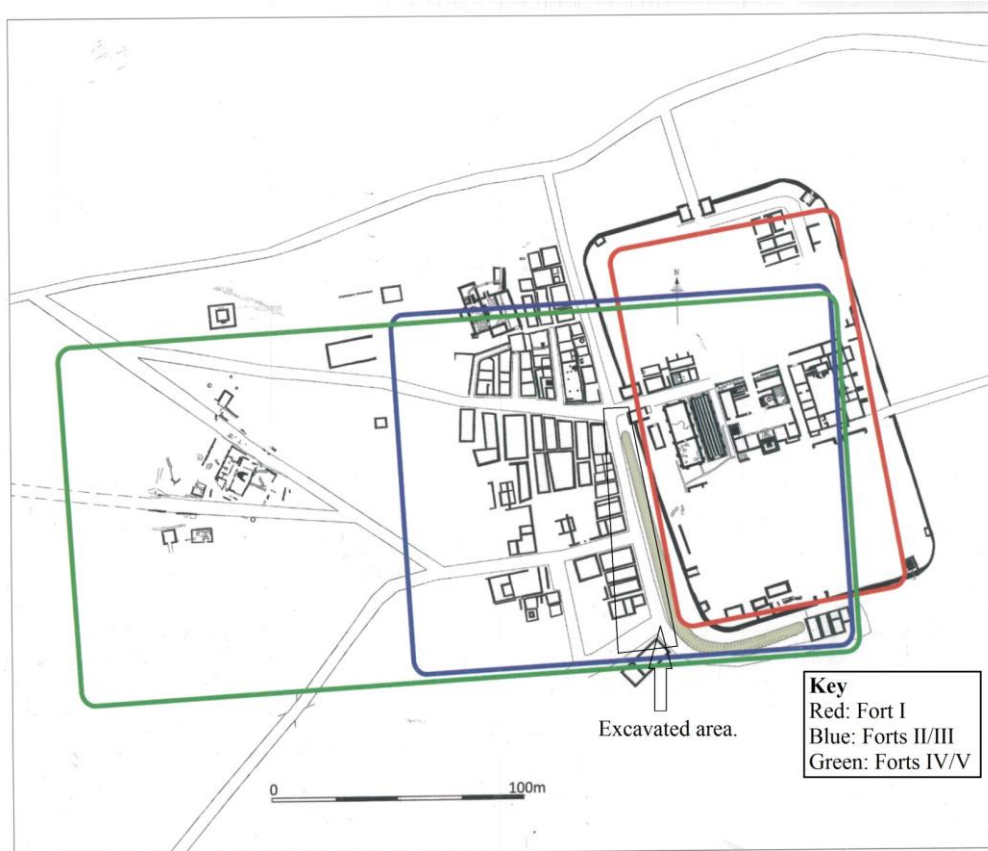
Figure 4.11. Vindolanda's wooden fort plans, with the extant third century stone fort superimposed (after Birley 2009:*pl.*6).

Archaeological excavations at Vindolanda have been carried out by the Vindolanda Trust and the Birley family since the site of Chesterholm ('stream-surrounded home by the fort') first came into the possession of Eric Birley in 1929 (Breeze 1996:*xi*). Successive generations of Birleys have excavated the fort, with reports published by Eric's sons Anthony and Robin (e.g. Birley 1993, 1994, 2002, 2009), his grandson Andrew (1997) and his partner Barbara (2006; cf. Rix 2010). The Vindolanda Trust and the reputation of Eric Birley have ensured that this has been one of the best excavated sites on the northern frontier (see **1.1.4**).

Period	Dates (AD)	Fort size	Garrison	Function of excavated area	Prefect
I	c.85-c.90	c1.4ha / 3.5ac	*Cohors I Tungrorum*	Ditch/gate	Iulius Verecundus (*TV* II 154, *TV* III 857)
II	c.90-c.100	c.2.8ha/ 7ac	*Cohors VIIII Batavorum Cohors I Tungrorum* (?)	*Praetorium* – western range, yard, kitchen, storeroom.	Flavius Genialis (*TV* II 301)
III	c.100-c.105	-	*Cohors VIIII Batavorum Cohors III Batavorum*	*Praetorium* – western range, yard, kitchen, storeroom.	Flavius Cerialis (*TV* II 225-290,
IV	c.105-c.120	<2.8ha / 7ac	*Cohors I Tungrorum,* detachment from *Cohors I Vardullorum*, legionary detachments	Barrack block, multi-storeyed building	(Unknown)
V	c.120-c.130	-	*Cohors III Nerviorum* (?)	*Fabrica*(?)	(Unknown)

Table 4.1 Periods of occupation of the early wooden forts at Vindolanda (adapted from Birley 1994b: 1-4, Bowman 2003:6, Breeze 2006:434, Birley 2009:183).

The key excavations at Vindolanda took place from 1972 onwards in a narrow area of land to the west of the extant Stone Fort walls (see *fig*. 4.12). These revealed substantial timber buildings with five successive periods of occupation (Birley 1994:10; *tab*. 4.1). Other areas of the Pre-Hadrianic forts are still undergoing investigation, but reveal the complexity of the site's occupation (Birley and Blake 2005, 2007, Birley 2007:1). The understanding we have of life during the early Periods at Vindolanda is unparalleled and consequently the fort is discussed further in **3.2.2** and **5.2.2**.

a. Period II *praetorium* over Period I ditch

b. Period III *praetorium* over Period II *praetorium*

c. Period IV barrack block over Period III *praetorium*

d. Period V *fabrica* over Period IV barrack bock
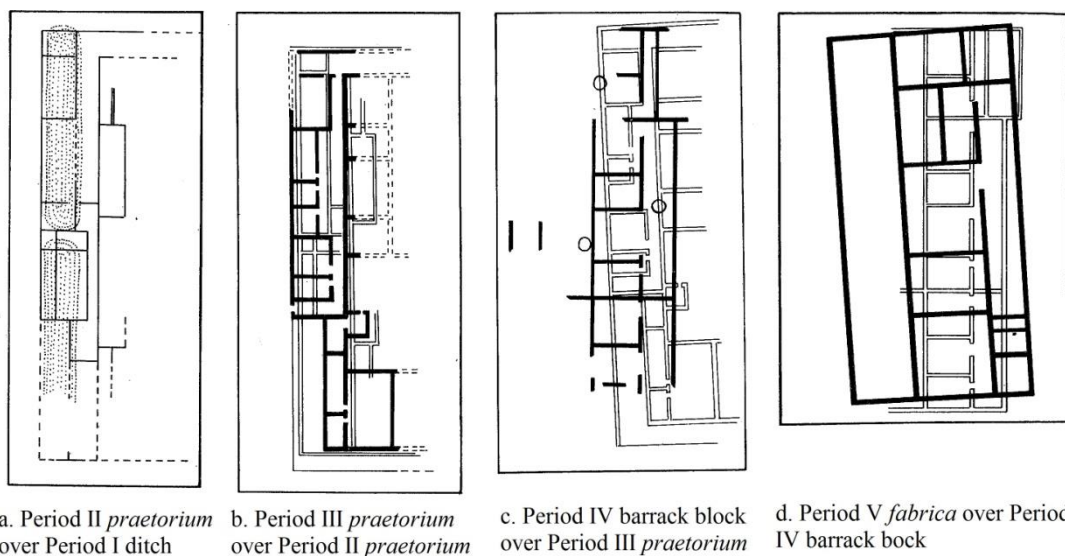
Figure 4.12. The excavated buildings of the early wooden forts at Vindolanda (after Birley 1994:41, *fig*.19; 57, *fig*.22; 94, *fig*. 29; 114, *fig*. 31).

Vindolanda presents a unique challenge for archaeologists. A key site within Roman military studies, the level of information provided by the writing tablets is not matched by a clear understanding of the plan of the earlier wooden forts (cf. Taylor 2000:86) although recent excavations and electromagnetic surveys elsewhere at the site have improved our understanding of earlier contexts (Birley and Blake 2005, 2007; Biggins and Robinson 2000). Discussions of the material culture from this site, and the social and economic data presented in these tablets, necessarily take place within a reconstruction of the fort that is heavily influenced by the 'standard plan.' However, the site also demonstrates the dangers of simplified interpretations. Each context provides a complex impression of building usage and significance, with activities dispersed broadly around the fort, even within the limited area excavated.

4.3.5. *Case study three: Housesteads (*Vercovicium*)*

> 'Housesteads, the grandest station in the whole line…Here lies the ancient splendour in bold characters'

> (Hutton 1802, cited in Rushworth 2009a:ix)

When Stukeley encountered Housesteads in 1725, he described it as 'the Tadmor [Palmyra] of Britain', in reference to its preservation and its cultural remoteness - this part of Hadrian's Wall being deep within the territory of the border reivers (Stukeley 1776, cited in Crow 2004:8, cf. Fraser 1989, Nesbitt and Tolia-Kelly 2009). William Hutton, who in 1801 (aged 78) walked the length of Hadrian's Wall, was similarly struck by the extant remains, hence his statement above (cf. Nesbitt and Tolia-Kelly 2009:379-83). Archaeological investigation at Housesteads began with the arrival of Hodgson in the 1820s (Rushworth 2009a:ix), but it was not until 1898 that a plan of the fort interior was produced (Bosanquet 1898; *fig*. 4.13 is a subsequent refinement; cf. Rushworth 2009a:3-8, Gardner 2007a:114). Housesteads lies atop the Whin Sill, an elevated ridge of dolerite that was utilised by the planners of Hadrian's Wall in its construction (cf. Hill 2004, 2006, Poulter 2010).

The fort was built at a time of consolidation; Hadrian's Wall formed part of an established frontier in A.D. 122 and the forts of Roman Britain too saw a transition to stone construction (Crow 2004:28-9). This differentiated it from the earlier Flavian forts of Vindolanda and Elginhaugh, but overall the standard plan remained largely unchanged – even where adaptations could be beneficial. For example, corner towers of timber forts supported the superstructure of the turf wall and palisade. Protruding stone towers would be better suited to

perimeter defence (enabling overlook of the wall exterior) but are absent from Roman stone forts of this period (2004:29); a potential reason for this is discussed below.
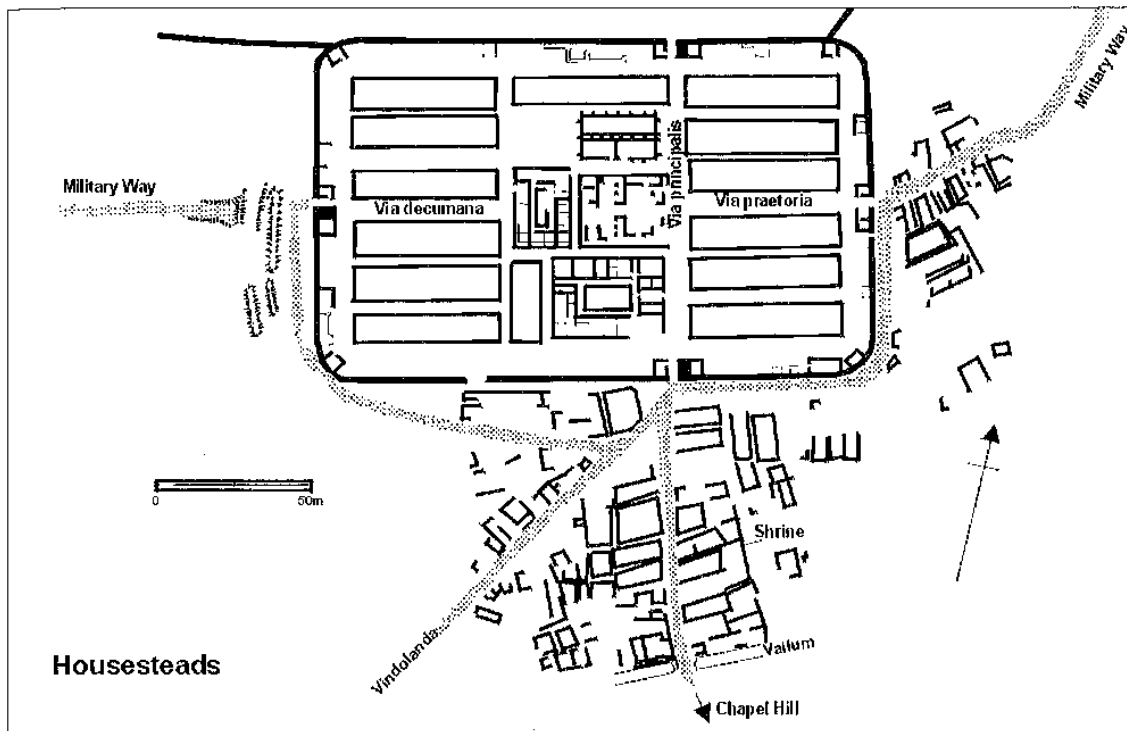
Figure 4.13. Plan of Housesteads fort (after Crow 2004:63, *fig*.33).

Housesteads is unusual in the context of Hadrian's Wall in that it lies horizontal to the Wall, rather than traversing it. It therefore does not 'face' the enemy in the normal manner of fort plans (see *fig*. 4.10; Crow 2004:20). The original garrison is unknown, but the First Cohort of Tungrians was present after A.D. 200 – the same unit stationed at Vindolanda in the late first century (Crow 2004:61). The Celtic name of Housesteads (*Vercovicium*) can be translated to either 'hilly place' or 'place of the effective fighters' – both appropriate appellations (Rushworth 2009a:3).

4.3.6. *Case study four: Wallsend (*Segedunum*)*

Wallsend lies on the eastern end of Hadrian's Wall, and like Housesteads was part of the Wall from the outset (Breeze 2006:131). It was garrisoned in the second century by the part-mounted Second Cohort of Nervians (2006:131). During the Hadrianic period, it was of timber construction, with only the defences and some central buildings constructed of stone. Later in the second century the timber buildings, including the barracks and *valetudinaria*, were rebuilt in stone, and the *principia* gained a distinctive forehall (2006:136; Hodgson 2003:5). Like Housesteads, Wallsend is a prominent tourist site, both as a well preserved

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auxiliary fort featuring a reconstructed bathhouse (based on that at Chester; Breeze 2006:136), and as a terminus of the Hadrian's Wall Walk (Natural England 2011). Unlike Housesteads, it is located in a formerly industrial area, and has been impacted by the presence of modern technology – including the A187 road which overlays the infantry barracks.
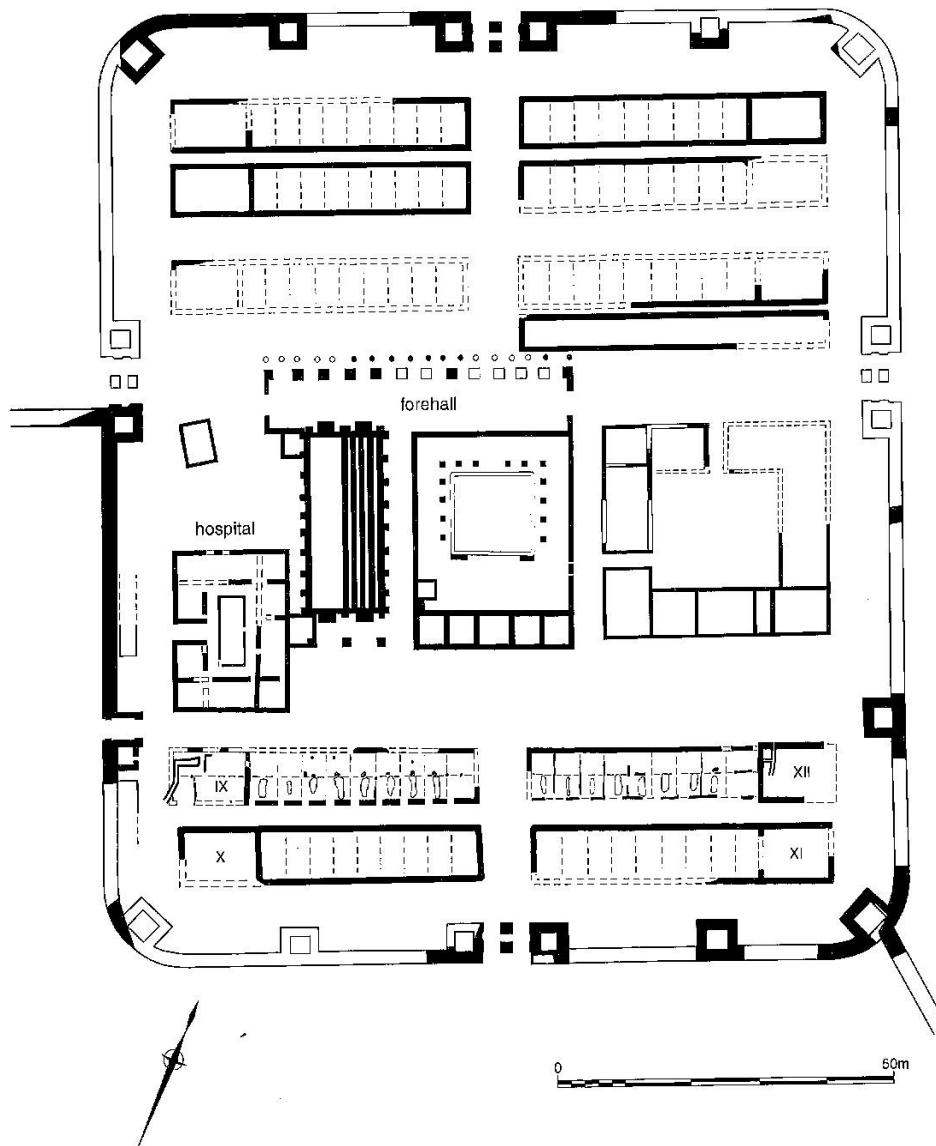
Figure 4.14. Plan of the Antonine fort at Wallsend (after Hodgson 2003:12, *fig*.10).

Wallsend is significant for the reconstruction of ground plans of the fort at each significant period during its excavation in the late twentieth-century by Daniels (Hodgson 2003:1-4; the Antonine reconstruction is shown in *fig*. 4.14). In many respects, the site presents a direct contrast to the fort of Elginhaugh; it is stone-built, on previously occupied land, had multiple periods of use and occupation (see table 4.2), and was not completely excavated; instead,

keyhole trenches such as those used by Richmond at Fendoch were used, showing continuity of archaeological practice between teacher and student (Hodgson 2003:4; see **1.1.4**). The fort plans created by Daniels have been the most thorough from Hadrian's Wall, and despite total excavation as at Elginhaugh being impractical, they provide a reasonably accurate representation of the development of Wallsend (excavations since Daniel's death have refined these further; cf. Hodgson 2003:5, *tab*.1).

Period	Dates (A.D.)	Garrison	Site context
0	Pre-Roman	-	Immediately pre-fort agriculture.
1	Hadrianic	*Cohors II Nerviorum*(?)	Stone central range, but possible Timber Hospital XXI. Timber barracks: 6 infantry, 4 cavalry.
2	Mid-Antonine/Late 2nd C	*Cohors IV Lingonum*	Stone hospital built. Barracks built in stone. Stone forehall with portico built? Rampart-back buildings flanking minor W gate and gate annexe.
3	Late 2nd/Early 3rd C	*Cohors IV Lingonum*	Stone barracks continue in use. Hospital reduced in size.
4	c.225-235	*Cohors IV Lingonum*	'Chalet-barracks' built in stone. Hospital demolished. Timber barrack(s) (for irregular troops?) in *retentura*?

Table 4.2. Chronology of Wallsend (after Hodgson 2003:5, *tab*.1).

4.3.7. *Case study five: Birdoswald (*Banna*).*

Birdoswald (*Banna*) is the eleventh fort of Hadrian's Wall, situated on a high spur overlooking the River Irthing (Wilmott 1997b:203). During the Turf Wall phase, a primary timber fort ran wholly behind the barrier (see *tab*. 4.3). The fort was rebuilt in stone during Period 2 to straddle the line of the Turf Wall, but was unoccupied for a period during which time the site became overgrown. The fort was subsequently reoccupied and completed. A further phase of reconstruction took place before or in the Severan period, marking Period 3 (Wilmott 1997b:73-6, 2009b:206, 393). The fort was not abandoned during the period of the Antonine Wall, but the remaining garrison may have been too small to occupy every building; some were left incomplete throughout Period 2 (2009b:404).
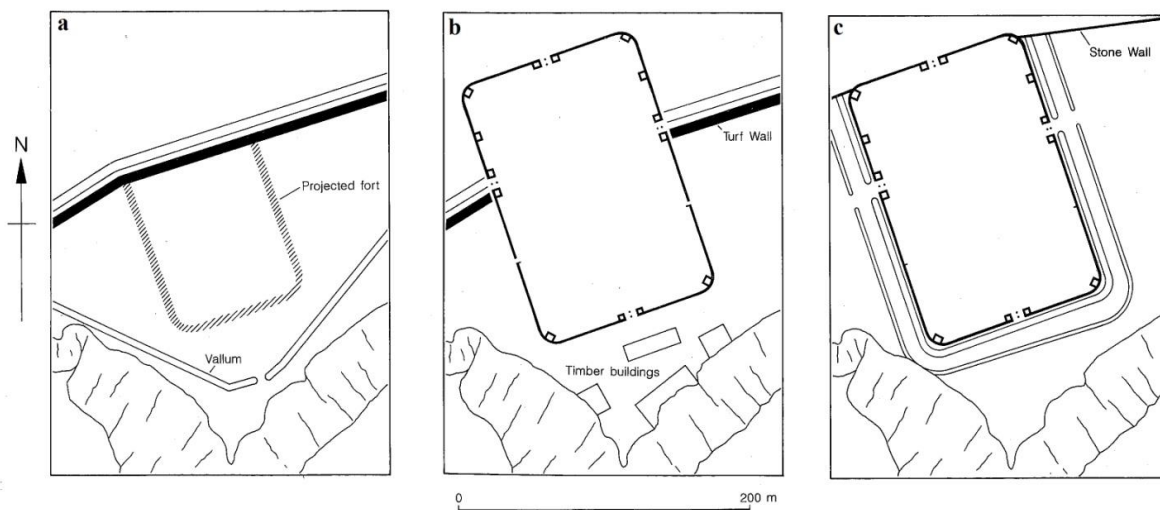
Figure 4.15. Outline plan of the forts during the first two Periods of occupation at Birdoswald. **a** = Period 1. Timber fort below Turf Wall. **b** = Period 2a. Stone fort, built across Turf Wall. **c** = Period 2b. Stone fort, Stone Wall built to the corners of the fort (after Wilmott 1997b:402, *fig*.287).

Period	Site Phase	Description	Dating
1	1	Turf Wall and ditch	Hadrianic (*c*. 120s)
	2	Structures above Turf Wall ditch	
2a	3	Beginning of Stone Fort defences	Hadrianic-Antonine (*c*. 120s-160s)
	4	'Hiatus horizon' – fort abandoned	
	5	Completion of Stone Fort defences, buildings, occupation	
3	6	Second major structural phase	Severan (c. 200s)

Table 4.3. Relationship between site phases and chronological periods at Birdoswald (after Wilmott 1997b:22, *tab*. 1).

Birdoswald is notable for its changing position in relation to the Wall. When the stone fort was initially constructed, it straddled the Turf Wall and required additional gates in the left and right walls to serve the roads to the south. These single-portal gates (*porta quintanae*) were filled in when the course of the Stone Wall deviated to the north of the Turf Wall, to meet the northern corners of the fort (Wilmott 1997b:3). This deviation has ensured the stretch of the frontier at Birdoswald has received much academic attention, preserving as it

does elements of the Turf Wall and associated Vallum as well as the later Stone Wall (1997b:3-8).
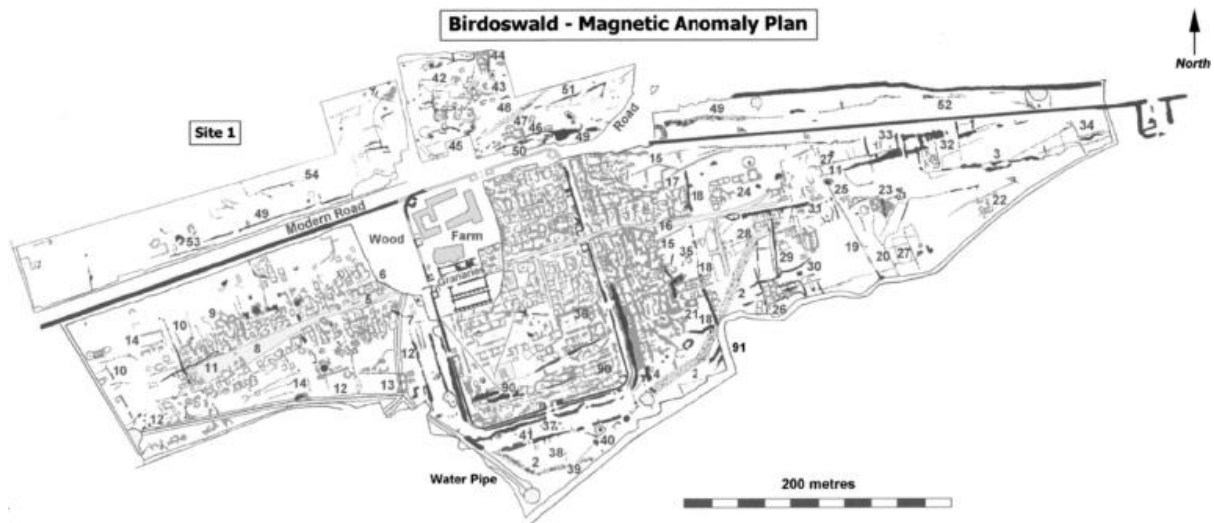
Figure 4.16. Magnetometric plan of Birdoswald (adapted from Biggins and Taylor 2004:163, *fig.* 3).

In contrast to Housesteads, excavations at the fort of Birdoswald have only recently begun to extensively explore the interior (Wilmott 1997a, 1997b, 2009a, 2009b). Prior to 1987, only two internal buildings had been excavated: a long strip building to the east of the *via principalis*, and behind it a barrack block, both dated to the Hadrianic period and discovered during excavations in 1929 (Wilmott 1997a:581). Between 1987 and 1992, a programme of excavation carried out by English Heritage uncovered further Hadrianic (Period 2) buildings (1997b). A recent surveying program has shown the extent of the settlement across the unexcavated area of the site, although areas to the south have been lost to landslides (Biggins and Taylor 2004:177; see *fig.* 4.16).

Excavations in 1990 revealed a basilica-style building on the west of the fort, north of the *via principalis* - hitherto unknown in auxiliary contexts in Britain (Wilmott 1997a:582). The function of this building is unclear, although a similar building at the fortress of Caerleon was identified as an exercise hall (*basilica exercitatoria*; Wilmott 1997a:585). This structure may have been an adaptation to the un-Mediterranean climate of the north of England, as it provided a sheltered place for soldiers to train with weapons, albeit not from horseback due to limitations of space (1997a:585; cf. Vegetius 2.23. For the *hippika gymnasia* cavalry exercise see **5.3.5**). The nearby cliff edge and proximity of the Turf Wall may have prevented outdoor training in such weaponry.

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The basilica building challenges the 'standard plan', as it takes up space that should be occupied by two barrack blocks. It is a reminder that the investigation of fort interiors cannot rely on diagrammatical assumptions (1997a:585-6). Excavation and geophysical surveying of the interior of Birdoswald have revealed details of the internal layout of the *praetentura* of the fort, enabling planning of the later, post-Severan periods with relative accuracy (Biggins and Taylor 1999, 2004; Wilmott 2009b:224-5). The Hadrianic garrison has not been identified, partially due to the limited investigation of the *retentura*. The Hadrianic infantry barracks and training hall imply a *cohors milliaria* based on the size of the fort, but if the evidence of coinage and a pottery sherd identifying a *Decurion* are accepted it is possible that the garrison was a part-mounted *cohors quingenaria equitata* (Wilmott 2009:390). If the latter is the case, then the zoning of infantry and cavalry troops at South Shields and Wallsend is replicated here (2009b:390). The small finds assemblage of the earlier forts (Periods 1 and 2) is very small, due to the selective excavation of contexts which were neither work nor domestic spaces (e.g. the *horrea,* the basilica, the strip buildings), and which were apparently kept clean whilst in use (1997b:405-6).

4.3.8. *The 'standard plan': summary.*

These case studies demonstrate the difficulties in interpreting fort interiors. Whilst the layout of each fort was subject to a great number of variables, the general level of continuity in the arrangement of the internal buildings conformed to a general standard, long established within the Roman military, which makes cross-comparison of sites plausibly sound on a first-principle basis. For the late first-century timber forts at Vindolanda, the plans can be assumed to follow a broadly similar pattern to that seen at Elginhaugh, and the archaeological record used to discuss life within the fort. It is still necessary to bear in mind that the 'standard plan' was not absolute and at this and other sites, further excavation may further change the picture, as it did at Wallsend.

The question then arises of how space within this architectural form was experienced and utilised by those living and working within it. In the next section, I analyse the application of the 'standard plan' principles examined through these case studies on the ground, and interrogate archaeological evidence to provide further insights into function and use.

4.4.1. *Anatomy of a Roman auxiliary fort*.

In this section, the 'standard plan' is examined in greater depth through a summative discussion of the key buildings of the fort community. The conceptual significance of each area of the fort with regards to the control of its population and the formation of identity is highlighted here. This section also provides context for the analysis of material culture in this role in chapter five.

4.4.2. *The fort boundaries: walls, ditches and gates*.

By the standards of medieval fortresses the fortifications of Roman forts were not especially substantial. Romans rarely faced opponents skilled in siege craft and preferred to face enemies on the open field in any case (Goldsworthy 2003:88-9). The ditch and wall system could nonetheless hinder an attacking force, leaving them exposed to missile weapons (Johnson 1983:45-95, cf. Gilliver 1993, Bidwell 2008), although the lack of protruding towers meant enfilading missile fire was impossible (Goldsworthy 2003:88-9). The gates of the fort were impressive monumental features, especially when rebuilt in stone (*fig.* 4.17).

Figure 4.17. The reconstructed West Gate of Arbeia Roman Fort (South Shields; after The Arbeia Society 2008).

The perimeter wall and gateways demarcated the boundary between the interior and exterior of the fort. This served to distinguish between occupants and outsiders; the institutional character of this division of space is returned to below. Within Roman British archaeology, the symbolic value of the boundary is widely acknowledged. Hingley argued that the

construction of enclosures around courtyard villas in the south reflected native concepts of power and status:

> '…the construction of a substantial and well defended enclosure provided one way of demonstrating high status and surplus manpower. It is also probable that the enclosure, as a symbol of status, has an origin in the social structure of later prehistoric communities. In other words, unlike the villa building, the enclosure boundary was an indigenous symbol of social status.'

> (1990:98)

Hingley addressed civilian settlement boundaries, but the similarities in function and capability between native hillforts and Roman forts has been noted elsewhere by James (2007:164). If the rational order and regular lines of the Roman camp and forts were not reflected in native architecture, the act of constructing a boundary carried a clear message for locals. There was a belligerence inherent to the boundary itself, especially if the site was previously a centre of power for the native elite, as in the case of Hod Hill and Maiden Castle (cf. Mattingly 2007:160, Peterson 1998:66). The fortifications were therefore an integral part of the communal identity of the fort, not simply a functional barrier, and the act of their construction emphasised this (cf. Guest 2002; the impact of this on the landscape and on local populations is returned to below: **5.4.7**).

4.4.3. *The Central Range: the* Principia.
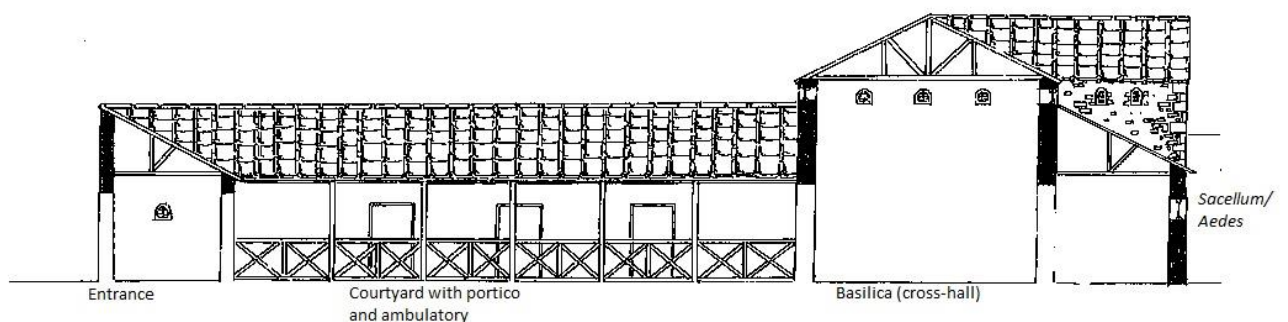
Figure 4.18. Key features of the *principia* (side view, after Johnson 1983:104, *fig.*78*).

Occupying the spiritual and physical heart of the fort community, the *principia* (headquarters) was the most significant internal building. Architecturally, it resembled the *forum* of the Roman town, taking the form of an enclosed courtyard with a single entrance, a basilica set at the rear and a range of rooms (usually of five) at the rear. The central room

was the chapel of the standards (the *sacellum*, or *aedes*), which also contained the strong-box which was the unit's treasury (Wacher 1997:42).

As in the forum, the basilica usually featured a raised tribunal (from which speeches could be delivered). The *principia* was aligned symmetrically around the line between the entrance and the *aedes,* ensuring a line of sight between the two points (Johnson 1983:104-32, Hanson 2007b:53; cf. Goldsworthy 2003:83). Because the *principia* of most Hadrian's Wall forts were orientated towards the north (facing the 'enemy'), these would have been poorly lit; in contrast, the south-facing *principia* of Elginhaugh may have enhanced this advantage with a roof over the ambulatory that was pitched away from the centre (Hanson 2007b:53; cf. Wallsend's north-facing *principia*, Hodgson 2003:132). This layout was shared by most forts and fortresses, with the key differences being in scale (1983:104, see *fig*. 4.19). The *principia* would have been an imposing building, as a result of its central placement as well as its architectural scale.
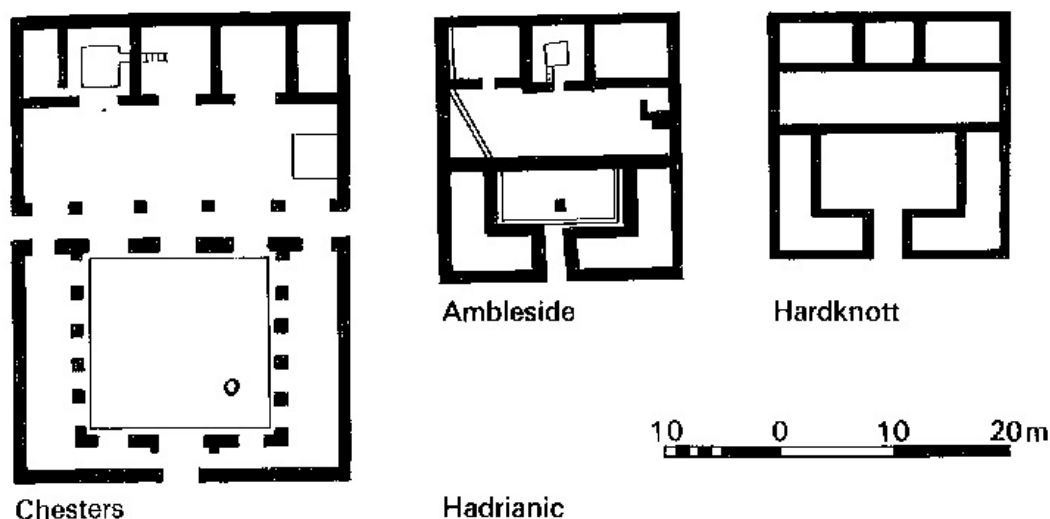
Figure 4.19. Comparative plans of Hadrianic *principia* (after Johnson 1983:131, *fig*.99).

In the auxiliary fort, the *principia* was the hub of daily life; it was here that commands were given, pay distributed, punishments decided, and addresses given by the commander to his men (Wilson 1980:15). The *principia* also had a religious function, as the centre for the imperial cult within the fort, in addition to forming the ritualised core of the unit itself. The well commonly located in the courtyard may have provided water for use in sacrifices during religious ceremonies (Johnson 1983:106). In combining the two functions, official orders gained a further ritual significance; it also demarcated an arena of cultural activity open only to those granted access to the *principia*.
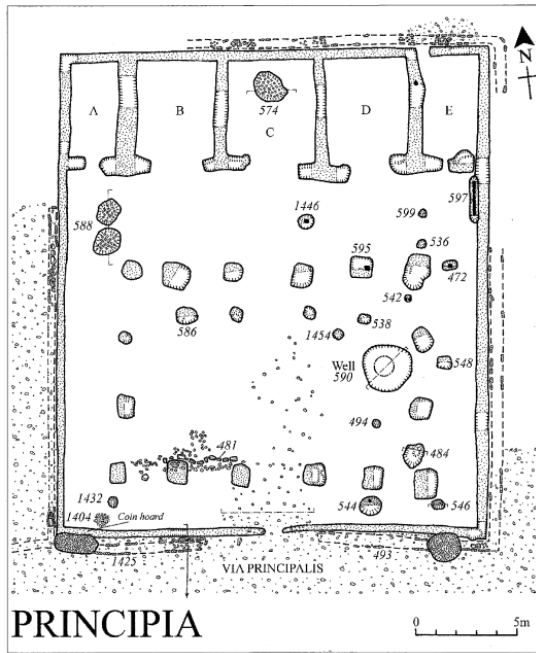
Figure 4.20. The Elginhaugh *principia* (after Hanson 2007a:54, *fig*.18).

Like the basilica of the civilian *forum*, the cross-hall served a variety of roles depending on the occasion. The observance of religious festivals such as those prescribed in the *Feriale Duranum* was focused around this communal space within the fort (Fink et al. 1940, Johnson 1983:111-2). The cross-hall and the courtyard would also have been the home to statues and altars reflecting these religious beliefs and political affiliations, as well as identifying those who dedicated them (cf. Guest 2002:77, Revell 2009:22-3).

The rear range of rooms in the cross-hall was centred round the axial *aedes*, but each room had a function within the administration of the fort – either archival (*tabularium*; for Roman bureaucracy see **3.2.2**) or as meeting places (*scholae*) for the junior officers (Johnson 1983:111). For the soldiers, the maintenance of their savings within the strong room of the *sacellum* ensured a collective interest in the security of this building; the *signiferi* (standard bearers) who kept financial records too would have been recorded due respect for this role, in addition to that afforded to him as protector of the material symbols of the unit (e.g. Vegetius 4.19; see **5.3.4**). In timber forts, the *sacellum* might also be the only structure within the fort constructed in stone – this sacred room thus possessed both a physical and symbolic defence against theft (1983:116, Campbell 1994:132).
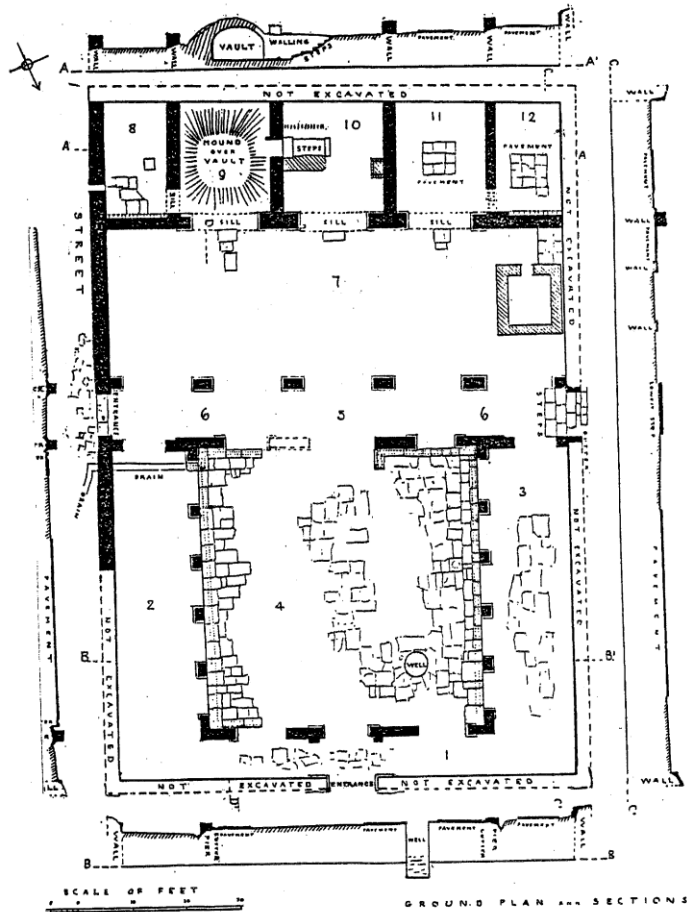
Figure 4.21. The Chesters *principia*, Hadrian's Wall (after Taylor 2000:180, *fig*.29).

4.4.4. *The Central Range: the* Praetorium.

The second key building of the central range, the *praetorium* was the home of the commanding officer and his *familia*. It resembled the distinctively Mediterranean single-courtyard town house, reflecting both the elevated social status and the implicitly civilian background of its principle occupant, the amateur but noble auxiliary commander (single courtyard houses: Grahame 2000; cf. Appendix **I**). The open design may be inappropriate for a northern European setting, but it projected a distinctively Roman architectural style. The winter cold was also mitigated by underfloor heating *via* the hypocaust (Johnson 1983:134).
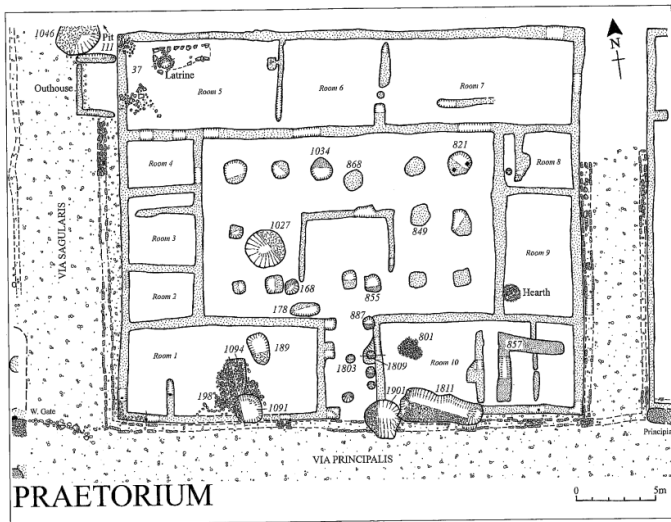
Figure 4.22. The *praetorium* of Eginhaugh fort (after Hanson 2007a:56, *fig*.20).
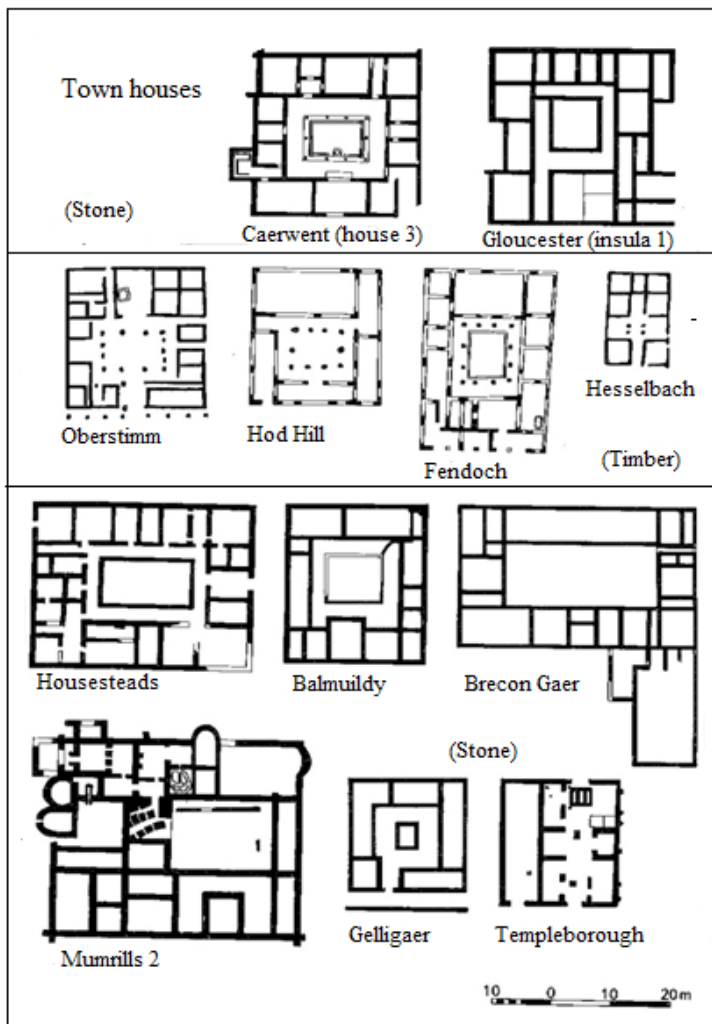
Figure 4.23. Plans of British and German auxiliary *praetoriae*, with urban parallels (after Johnson 1983:135, *fig*.101).

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Despite the separation of the *praetorium* from the administrative role of the *principia*, it retained its social importance. The Vindolanda tablets demonstrate the social connections that were maintained by the commander with his peers through the use of the *praetorium* as a social venue (see chapters three, five). The *praetorium* was among the most architecturally complex buildings within the fort; as with the bath house (see below) there was a great deal of variation in layout between sites, with plans more typical of urban houses (*fig*. 4.23). The ability of the commander to shape his immediate built environment exceeded that of his junior officers, and went greatly beyond that of the ordinary soldier; nonetheless he was a short-term tenant, and within well-established stone forts, he probably adapted to what he found (Johnson 1983:141). The significance of this building's urban form is returned to below.

4.4.5. *The Central Range - The* horrea *(granaries).*

The final buildings within the central range were the granaries. These long, rectangular buildings held the food supply of the garrison – grain and other foodstuffs – within a secure, well-ventilated environment. Keeping stores dry was of vital importance, so the granaries were often the sturdiest of the internal buildings with features such as an elevated floor, tiled roof, and buttressed walls to support the weight of the grain (Wilson 1980:17, Johnson 1983:144-56).
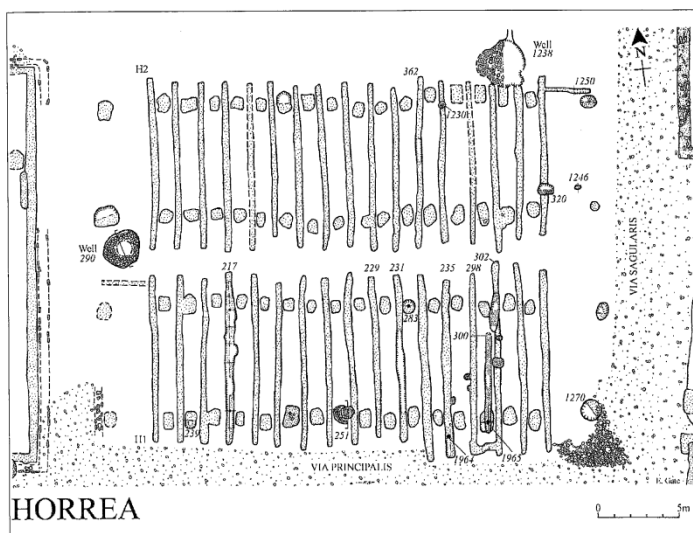
Figure 4.24. The Elginhaugh granaries, showing the longitudinal sleepers of the elevated floor (after Hanson 2007b:57, *fig*.21).

The *horrea* were usually paired and separated by a gap, perhaps to provide a redundancy in the event of fire or infestation. It may certainly have streamlined the process of unloading and loading supplies upon their arrival. The reconstruction of the interior of the granary shown in figure 4.25 below is speculative; grain may have been stored loose, in stone bins, or in sacks, the latter being the most practical (1983:156). The administration and care of these structures is returned to in subsequent chapters.
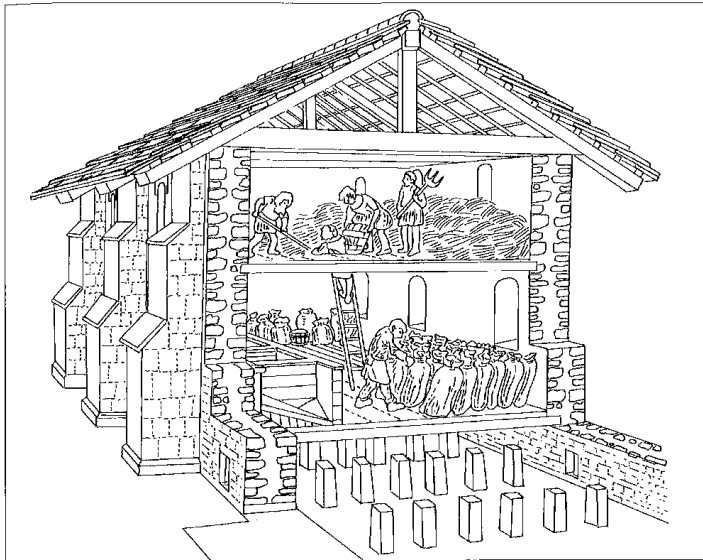
Figure 4.25. Reconstruction of the north granary, Housesteads (after R.Gardiner, in Crow 2004:207, *fig*.30).

4.4.6. *Workshops (*fabricae*) and storehouses.*

Of the internal buildings of the fort, these are the most problematic to identify, with the labels often applied to structures that do not easily fit into any other category (Johnson 1983:97). Workshops were however central to fort life, as the centre of the wide range of crafts and skills required for day-to-maintenance of the fort buildings and other materiel (see **3.4.2-4**). Craftsmen drawn from the soldiers had the rank of *immunes* and were exempt from general fatigues (Tarrutienus Paternus *Digest* 50.6.7, Vegetius 2.11; see Appendix **I**). Workshops in legionary fortresses were courtyard buildings (e.g. at Valkenberg, Wiesbaden, and Neuss; see *fig*. 4.3) but with a few exceptions they take the form of strip buildings within auxiliary forts (e.g. Oberstimm, Bearsden, South Shields; Johnson 1983:185-187). These buildings were multifunctional and rarely show any internal demarcation of space for particular tasks. The processing of raw materials by members of the fort community in spaces such as these is analysed further in chapter five (**5.3**.-).

4.4.7. *The Barracks (*contubernia*).*

> 'Soldiers' special pride is in their *castra*; that is their *patria* [homeland], that is their
> *Penates* [home].'

(Tacitus, *Histories* 3.84; cited in James 2011:171)
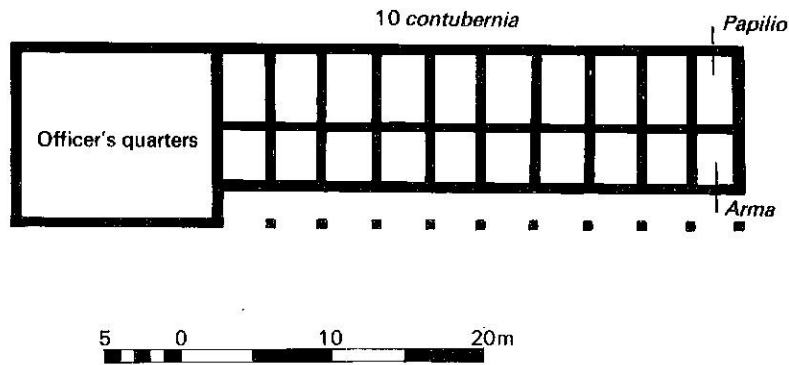
Figure 4.26. The 'typical auxiliary barrack block' (Johnson 1983:167, *fig*. 127).
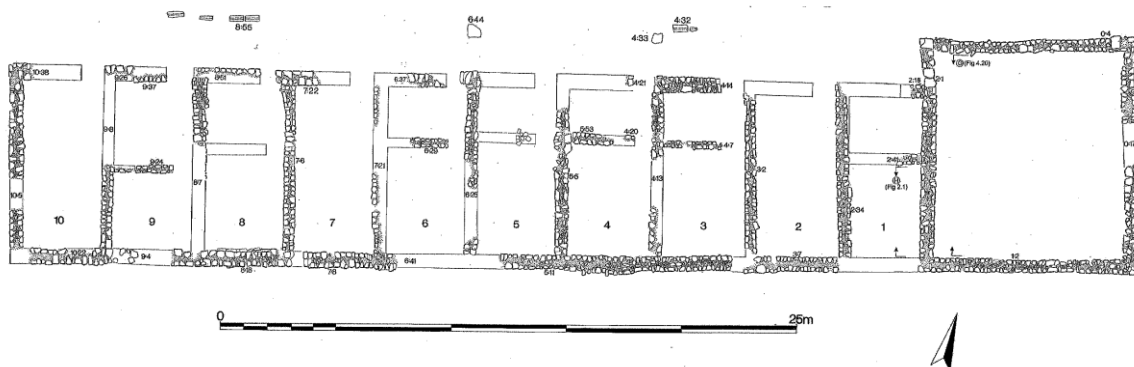
Figure 4.27. Barrack block XIII at Housesteads (after Rushworth 2009a:48, *fig*.3.15).

The direct successor of the tent rows of the marching camp, the barrack blocks of the
auxiliary forts embodied a similar division of space (*fig.* 4.26, 4.27). As in the camps, the
centuries (or *turmae*) were housed in rows of *contubernia*, with an extended terminal block
for the centurion's household (usually adjacent to the *intervallum* or the *via singularis*).
These blocks were grouped by cohort; in both fortresses and forts they were arranged in pairs
in the *retentura* and the *praetentura* (Johnson 1983:166-7). Each *contubernium* occupied two
rooms; the rear room or *papilio* ('tent', literally 'butterfly'; nicknamed within military argot
for their chrysalis-like shape when rolled; Haynes 2013:307) constituted living space, whilst
the front room or *arma* was used for storage (Johnson 1983:167; see *figs.* 4.26, 4.27). The
size of auxiliary barracks varied between sites; the average sized block was around 48m by

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9m, but could range from 15m to 80m long, 4m to 13m wide – smaller than legionary barracks nonetheless (Davison 1996:165).

The quarters of the centurion invariably exceeded in area the space allocated to the *contubernia* of his block, taking up around 25 per cent of the overall length; this was less than the 33 per cent of total length occupied by a legionary centurion, suggesting there was a difference in status between the two (Davison 1996:165-7). Excavations of the Renieblas siege camps showed the centurions were allocated considerably less space during the Republic, and excavations at Dangstatten indicate that this continued in the marching camps of the Empire, if not in the permanent accommodation (Salvatore 1993:30). The permanent accommodation of the centurions was therefore especially significant when it came to displaying status within the fort through control over space.

As with other internal buildings of the fort, reconstructing the original appearance of these buildings is problematic. Occasionally barrack blocks were placed back-to-back, an arrangement that severely reduced the light available to the *papilio*; it is possible that the roofs had two levels, providing a clerestory that could illuminate the rear room. At Carrawburgh on Hadrian's Wall, the partition wall between the two rooms of the *contubernium* was strengthened, suggesting this was the case here (Johnson 1983:172).
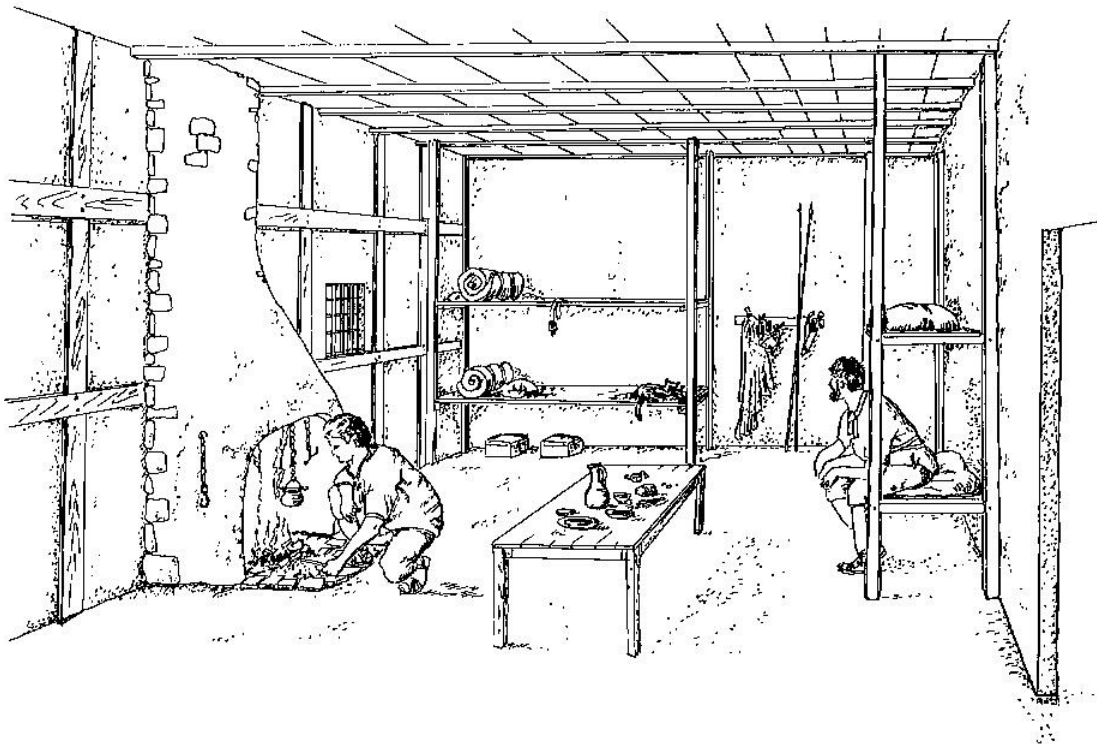
Figure 4.28. Reconstruction of a barrack *papilio* at Heidenheim fort, Raetia (after Johnson 1983:172, *fig.* 131).

The evidence for the internal layout of these rear rooms is considerably sparser. The sleeping arrangements of the soldiers (up to eight men in cramped quarters) have received multiple interpretations. Some have favoured the use of bunk beds (*fig*. 4.28), whilst at the reconstructed barrack block at Arbeia (South Shields), a number of reconstructions are offered, including a quadruple-bed arrangement (*fig*. 4.29; cf. Hodgson and Bidwell 2004:141. A further option is simple stuffed mattresses which could be moved to one side during the day, like futons, to provide extra space. It is possible that the preference for the 'bunk bed' arrangement reflects modern concepts of personal space (Croom 2007:178). However it is anachronistic to directly apply these concerns to the Roman period, and in cold northern winters, a system which enables the sharing of body heat may be preferable for the men themselves, especially given the deficiencies of timber buildings when it comes to retaining heat and resisting damp (cf. Shirley 2001:35). Since bedding material would have been organic (optimistically, a wooden frame and straw mattress, with textile sheets; Croom 2011:69) it does not survive archaeologically, but its character likely reflected the cultural tastes of the soldiers themselves. Modesty may have been less of an issue in back-to-back barrack blocks anyway, as artificial light sources will have been a necessity (Davison 1996:171-2).

Figure 4.29. Reconstructed third century *papilio* at Arbeia (image: Mabberly 2011).

The living conditions of cavalry troopers were probably more comfortable than those of the ordinary foot soldiers. Although they often shared their barrack blocks with their horses they had more personal space overall, with only three troopers to each *papilio* (see *fig*. 4.30). This extra room enable them to accumulate more personal possessions – or it could be taken up for

accommodation by their *calones* (see **2.3.3**). Both could be used to demonstrate status within the fort community, either through wealth or through avoiding demeaning labour (cf. Phang 2005). Living in close proximity with their mounts, and the strong smells this entailed, also emphasised their unique resources compared to infantrymen (cf. Haynes 2013:160).
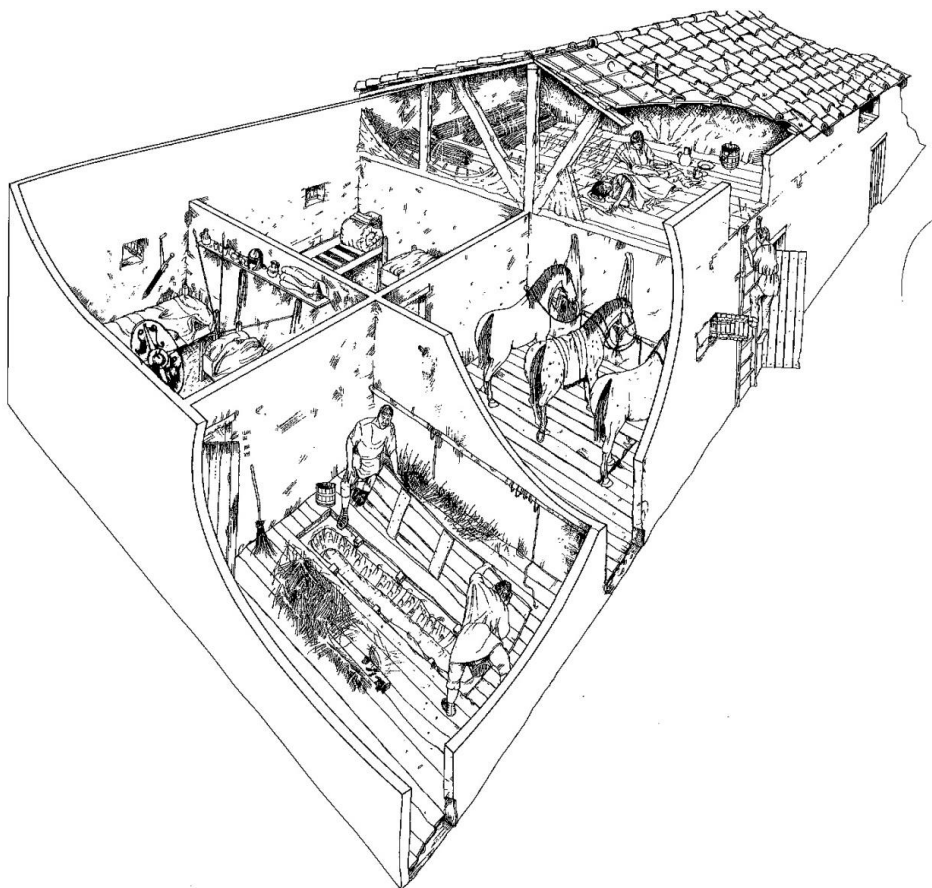
Figure 4.30. Reconstruction of a second-century timber stable-barrack at Wallsend. There are three horses to each front room, three cavalrymen to each *contubernium* – note the attic as living space for the grooms (after Hodgson 2003:81, *fig*.61).

Reconstructing the internal walls and division of space within the quarters of the centurions is even more problematic – unlike the *contubernia*, there was no consistently shared floor plan between forts or even barrack blocks. The greater space made available could be used in variable ways, with the number and layout of rooms potentially subject to individual choice on the part of the builders. This flexibility of space puts the centurions' quarters between the barracks of the soldiers and the commanders' households in terms of using architecture as a means of expressing personal identity, and, as discussed below, securing privacy within the fort community.

As my synthesis above has shown, the barracks of the soldiers were both domestic and institutional. I argue that these spaces were conducive to the formation of close personal bonds in that they were the centre of two activities especially close to any soldier's heart – eating and sleeping. Importantly, one feature I would note as being universally absent from Roman fort plans is a communal mess, in which large groups could share large meals, in exceptional or quotidian occasions (cf. Hanson 2007b:124). Meals were therefore arranged at the level of the *contubernia*, with communal ovens set into the fort walls used to bake bread (**II.5**; the diet of the soldiers is discussed further below in **5.5.-**). This is in contrast to modern militaries which use communal dining as a means of instilling a collective identity, of controlling the diets of its members, as well as being a practical solution for ensuring large numbers of men were fed. For the purposes of the Roman military institution, it was sufficient that the men received their grain rations collectively. For the men, it meant that dietary practice was central to their relationships with their *contubernales*, the primary group that was key to their wellbeing within military life (see **1.2.2**). As the debate regarding the next building type demonstrates, this relationship meant more than breaking bread together.

4.4.8. *The Hospital (*valetudinarium*).*

Vegetius emphasised the importance of good health and hygiene to the soldiers of the Roman military, discussing factors such as the acquisition of safe water supplies, the ensuring of well ventilated spaces within the camp, healthy diet, exercise, and so forth (3.28). Associated with this was a corps of medical staff who supported the legions on campaign, consisting of *medici* (doctors), some of whom ranked alongside centurions in status, and *capsarii*, 'bandage-men' of lower rank (Goldsworthy 2003:100-101; see **3.5.2**). According to Pseudo-Hyginus, these operated from the *valetudinaria,* a building situated near the *praetorium*, in a quiet region of the camp but still near to the workshops (Pseudo-Hyginus 4, Baker 2002b:70). These were courtyard buildings with wards surrounding an open space (see *figs*. 4.31, 4.32).

The identification of *valetudinaria* in a number of forts and fortresses in recent years has been controversial (e.g. the debate regarding Wallsend's hospital, summarised in Hodgson 2003:124-40, cf. Allason-Jones 1999b, Baker 2002b). *Valetudinaria* bear few similarities, so their identification has been based on their placement within the fort, and the limited recovery of medical equipment (Baker 2002b:70; see *fig*. 4.31. Medical equipment is itself a problematic category, as surgical tools are often multifunctional, and single finds do not in themselves confirm the function of the building (Baker 2002b:74-8, 2004; Appendix **III.6**).

Many 'hospitals' (see *fig*. 4.32) may have been workshops or storehouses, to the exclusion of (or alongside) a medical function (2002b:74). If Building IX at Housesteads is accepted as a *valetudinarium*, it was hardly a comfortable environment for the convalescing, lacking underfloor heating and being prone to damp (Allason-Jones 1999b:135).
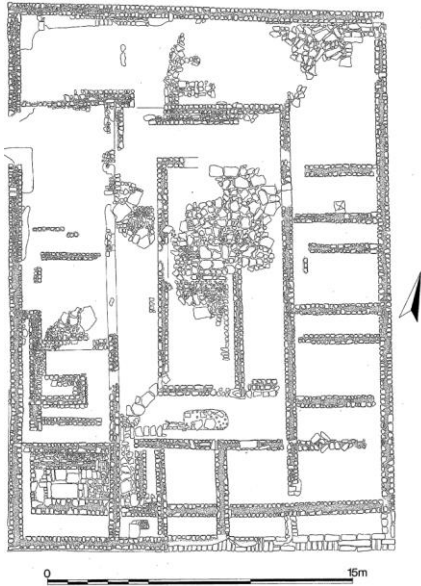
Figure 4.31. The Housesteads *valetudinaria* (after Rushworth 1999a:13, *fig*.1.9).
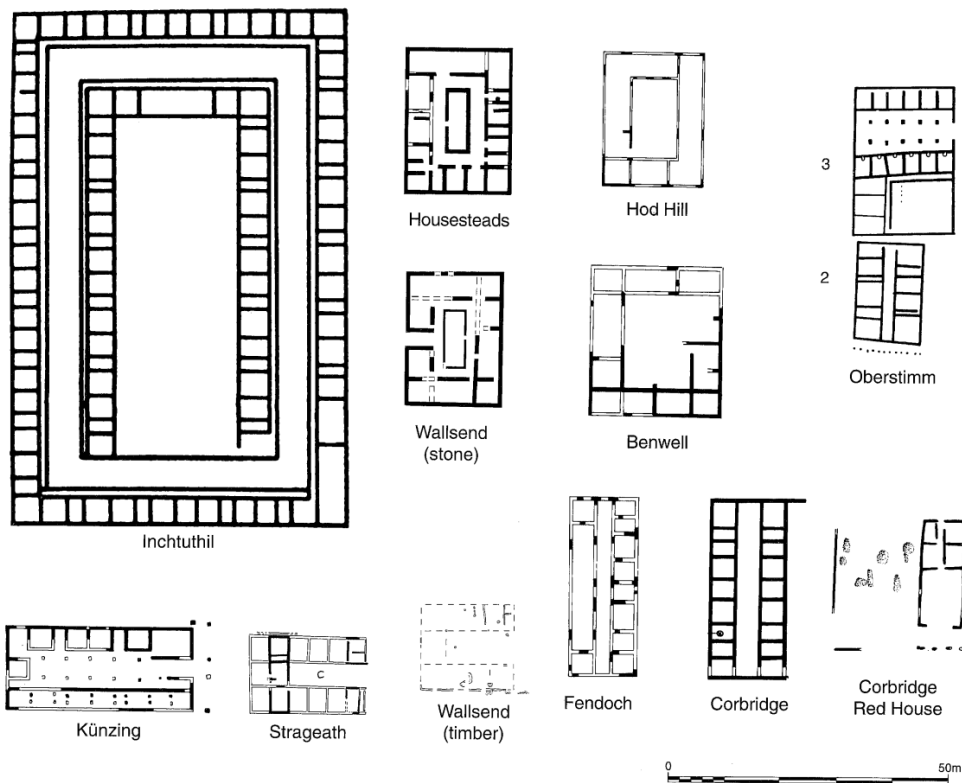
Figure 4.32. Comparative plans of legionary and auxiliary hospitals (after Hodgson 2003:127, *fig*. 88).

Even if medical personnel were present within the fort, it does not necessarily follow that there was a hospital for them to work from; Hyginus is the only source to state that they were discrete structures, and it is possible that the sick and wounded were kept in their own quarters, or in other buildings (Allason-Jones 2002b:70). Other primary sources have been used to argue for the existence of standalone structures, such as a reference by the biographer Hadrian to his visiting sick soldiers whilst on campaign, '*Aegros milites in hospitiis suis videret*' (*SHA Hadrian* 10.3; cf. Davies 1969, cited in Baker 2002b:70). *Hospitium* however refers not to a hospital but rather to living-quarters; perhaps guest accommodation (Baker 2002b:70; cf. *Tab. Vindol.* II 880 = **II.39**). It is interesting to note in this light that a *medicus* at Vindolanda was involved in the building of such a structure during the first timber stage of the fort (*Tab. Vindol.* II 156 = **II.2**); a *valetudinarium* would be unnecessary if the wounded or sick soldiers were treated in conventional accommodation.

4.4.9. *The Latrines.*

'M. Longinus A…ad stercus'

('M. Longinus A…in the excrement' – Egyptian duty roster, A.D. 87, cited in Johnson 1983:214).

The unfortunate Longinus had been assigned one of the less pleasant fatigues of military life – the maintenance of the communal latrines. These buildings were essential to good hygiene within the fort, and surviving examples demonstrate practical Roman engineering. Perhaps the best known example is that of the south-east corner of the fort of Housesteads (see *fig*. 4.33) which retains its stone gutter and drainage system, albeit without the cistern that stored rainwater for dry spells (Rushworth 2009a:222). Unfortunately for those living outside the fort, the ordure was channelled only as far as the other side of the ramparts, through a drain that remains open today.

It is often stated that Roman soldiers employed sponges on sticks in place of toilet paper (the practise is attested in Rome in Martial *Epigrams* 12.48.7, applied to northern auxiliaries in Johnson 1983:213, Breeze 2006:243) but this is unlikely in the context of the northern frontier, where moss, bracken or other organic materials were more readily available substitutes (Crow 2004). Latrines, like the baths with which they are often associated, were a venue that emphasised socialisation with one's comrades; no provisions were made for privacy, and indeed would not have been expected. As in the *contubernia*, a soldier lacked

the ability to isolate himself from his fellow soldiers, with every movement watched (*fig.* 4.33).

Figure 4.33. Reconstruction of the southeast latrines at Housesteads fort (after English Heritage 2010).

4.4.10. *Extramural buildings: The auxiliary bath-house (*balneae*).*

Outside the walls of auxiliary forts, the building type most frequently excavated is the bathhouse (Wilson 1980:62). These were sturdy buildings, made of stone and tile to reduce the risk of fire (which also explains their extramural placement in auxiliary forts), and sited downhill to take advantage of local water supplies (Johnson 1983:220). Roman baths contained a series of rooms of differing function and temperature, which bathers moved through in sequence to complete their ablutions in the appropriate manner (*fig*. 4.34). This method of bathing survives in modern Turkish baths (the direct descendants of Roman baths of the Eastern Empire) and the sauna (Breeze and Dobson 2000:177). The bath-house has been recognised as a core component of a specifically Roman identity, replacing the Greek *gymnasia* but retaining the recreational and social functions of these buildings (Wallace Hadrill 2008:184, Eger 2009; cf. Pliny the Younger, *Letters* 10.40). Although primarily hygienic in function, they operated in much of the Roman world as a venue for social interaction, and helped to instil strong communal bonds between those who used them (Hanson 2007b:127; cf. Haynes 2013:168-70). For soldiers, bathing enabled them to wash away the sweat of their training and other exertions that was emblematic of their identity within the Roman world (Haynes 2013:173).

This category of building is frequently represented at auxiliary fort sites from the Flavian period onwards (2013:173). In contrast to the *thermae* of the legionary fortresses and the public baths of large towns, which featured architectural embellishments such as apses and

porticos and elaborate moulded decorations,, these were functional in design (Revell 2007). The variation in design of bath-houses in auxiliary forts has been discussed by Revell, who highlighted the tendency of Romanists to downplay the social importance of these sites within Roman military contexts (2007:230; although see Maxwell on the Elginhaugh *balnea*; 2009:251). The differences in design could be traced to scale – forts have smaller associated populations than larger town and fortress settlements, and so did not require as extensive a range of facilities – but their use would nonetheless have constituted a different social experience for the auxiliary soldier than that of the legionary in the more substantial and monumental *thermae* (possibly reflected in the two styles of bath house used at Vindolanda; the Period II/III bathhouse was in the legionary style, whilst the later bath house of the Stone Fort was in the more conventional Hadrian's Wall style; see *fig*. 4.35). The contrast between the bath types can be seen as a physical correlate to the difference in status between the legionaries and auxiliaries, and reflect a broader difference in attitude on the part of Roman authorities towards the needs of the auxiliaries (Revell 2007:235-6).

A Changing-room (*apodyterium*)
F Cold room (*frigidarium*)
P Plunge bath
T Warm room (*tepidarium*)
C Hot room (*caldarium*)
S Hot dry room (*sudatorium*)
L Latrine
pr Furnace
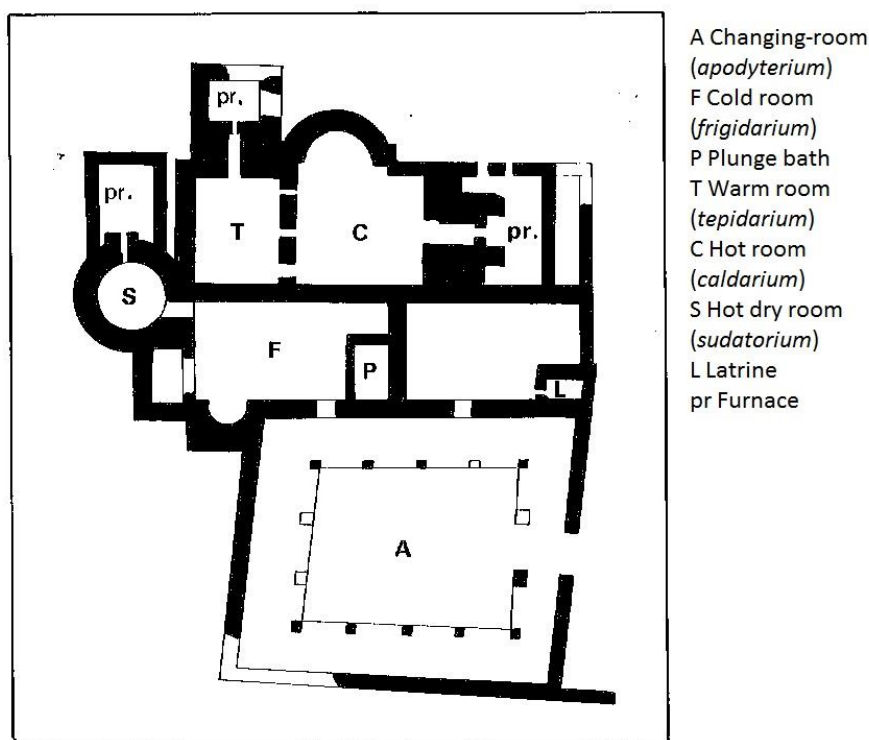
Figure 4.34. The Corbridge bathhouse (adapted from Johnson 1983:221, *fig*.169).

The differences in bath plans extend beyond the issues of scale between auxiliary and legionary baths, however. The bath house was another part of the fort in which significant variation occurred between sites. This is primarily due to the different geographical

limitations of each site, but the result of this was a bathing experience that would have been unique to each settlement, and therefore a small part of how each fort community would have identified with the architectural surroundings. Within the normalised layout of the fort environs, the bath house was recognisably non-constant; visiting another bath house would have required acknowledging a different set of movements to navigate. However, the relationship between rooms remained constant, so the same bathing habit could be observed.
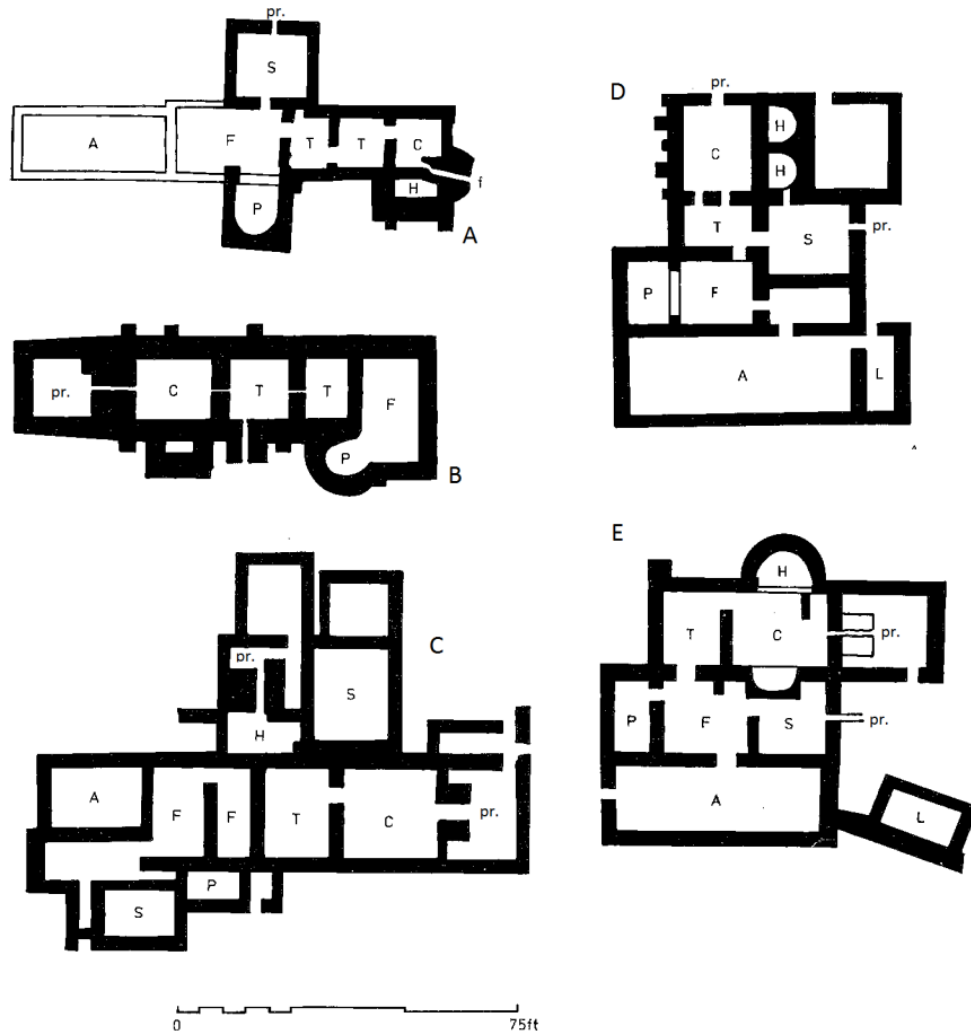
Figure 4.35. Further bath house plans. (a) Bearsden, (b)Bothwellhaugh, (c) Caerhun, (d) Carrawburgh, (e) Vindolanda Stone Fort (adapted from Wilson 1980:62-3, *figs*.74-5).

Figure 4.36. The bath-house *apodyterium* at Chesters (Author's image, 2011).

As Haynes has noted (2013:174), the bath-house could also have served as a nexus of interaction across the military community, providing soldiers and civilians with a location in which they could socialise in bulk (if probably not simultaneously); this is clear from the scale such buildings were constructed at, in particular the spacious changing rooms (*fig.* 4.36). Haynes notes that the bathing habit served to distinguish the fort communities from the occupants of the landscape around them (2013:174). To this I would add that such a habit was indeed only possible within Roman architecture and with the resources the Roman military could provide. As bathing did not become a common feature of auxiliary life until the Flavian period (2013:473), this was a behaviour inculcated over time. It is not possible to say whether the baths were demanded by the auxiliaries or imposed upon them, but in either case they consequently were a fact of everyday life. Participating in social activities within these settings also meant becoming socialised to Roman cultural values regarding bathing and hygiene.

4.4.11. *The extramural settlement or military* vicus.

One weakness of the 'standard plan' model is that it excludes extramural features of the fort, including the *vicus*. This is the accepted name for the small civilian settlement that developed outside auxiliary forts, but which lacked an independent identity (those outside fortresses are *canabae;* Salway 1981:9, Sommer 2006:97). However, the term *vicus* also applied to subdivisions within a town, where it carried the connotation of 'neighbourhood', and to private and imperial estates, making the term problematic in a military context (Birley 2010:11-14; cf. Wacher 1995:16). The inhabitants of the extramural settlements of Old Carlisle, Housesteads and Vindolanda are known to have identified themselves as *vicani* (*RIB* 899, 1616, 1700; Sommer 1984:22-3, Birley 2010:20-22, cf. Spiedel 1996:54), but this does

not indicate whether they regarded themselves as part of the military, as wholly civilian, or somewhere in between.

The degree to which these extramural settlements formed separate social communities associated with, but distinct from the military garrison has been challenged in recent years. Sommer's positing of Roman military *vici* as essentially detached neighbours (1984, 1989, 2006), has been especially challenged recently in unpublished theses by Birley (2010) and Greene (2011). It now seems more appropriate to consider occupation and function of the fort and extramural settlement together, under the remit of the fort community, as discussed above (cf. Birley 2013).
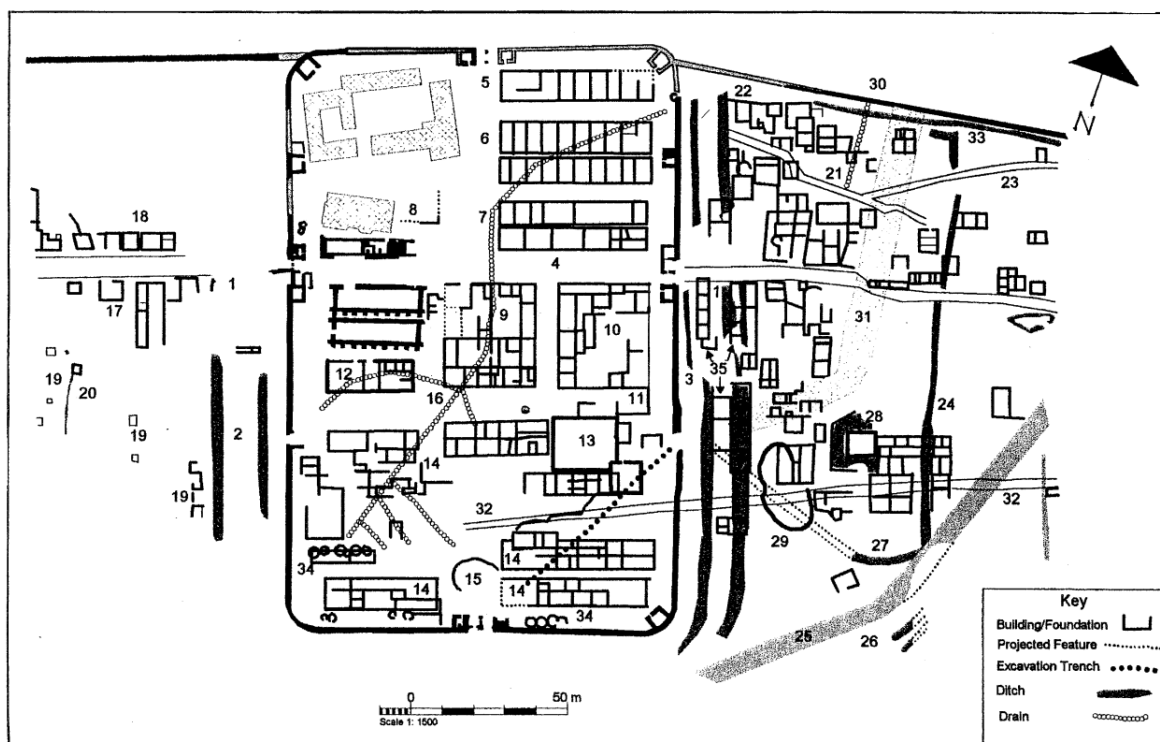
Figure 4.37. The fort and *vicus* of Birdoswald, revealed through magnetometry (after Taylor 2000:168, *fig*.14).

The inhabitants of the *vici* represent the non-military members of the fort community – with some exceptions: certainly the families of officers who resided with them inside the fort, and visiting military personnel who may have stayed in the *mansio* or *hospitium,* a residential structure found in many *vici* (e.g. Newstead; Hanson 2012:63). A key activity of this settlement would have been trade with the wealthy salaried soldiers, but also potentially with the surrounding population (although there is limited archaeological evidence for this activity in the north of Britain; Sommer 2006:118, cf. Wells 1999:140-1). It was around large,

complex buildings such as the bathhouse and the *mansio* that the *vici* of forts originally developed however, buildings with official functions (Sommer 2006:123).

The *vici* of auxiliary forts have received considerably less archaeological attention than fort interiors, in part due to the greater area they covered. Techniques such as magnetometry have revealed more about the plans of these sites however (see *fig*. 4.37; Sommer 2006:96-7). Sommer argued that for most forts in Britain the *vicus* followed a 'street-plan type' that was also the most common type in Germany, wherein the civilian buildings faced the street leading to the fort gate – usually the *porta principia dextra* (2006:97). Other plans of *vici* include the 'tangent' type, for when the direct road to the fort is impractical for building upon so buildings cluster around ancillary roads, as at Old Carlisle (2006:103, see *fig*. 4.33). Sommer's typology has been criticised for inconsistencies in its use of labels by Birley (2010:29-30) so these should be applied reservedly.

As with the functional internal buildings of the fort, the standard form of the residential dwellings of the *vici* (strip-buildings) tell us little of their function (for the controversial identification of a strip-house as a *fabrica* see Buxton and Howard-Davis 2000:414-21; Sommer 2006:132); the professional lives of the broader fort community are therefore discussed in greater depth in the next chapter.
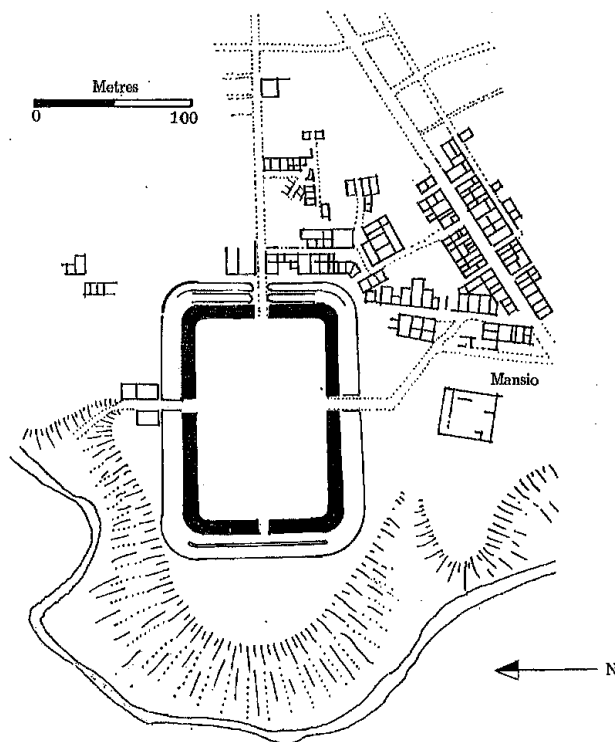
Figure 4.38. The Old Carlisle *vicus*, Cumbria (after Salway 1981:8, *fig*.2.1).

One further feature of the fort is the military cemetery – a key source of information regarding the self-identity of soldiers, as well as the demographics of auxiliary fort communities in general. Although these have rarely been excavated (but see Cool 2004, English Heritage 2009) the information these have provided in the form of grave markers is highly significant (see **3.2.1**).

4.4.12. *The Annexe.*

A feature common to many auxiliary forts – although missing from most 'standard plans' – is the annexe, a fortified adjunct. These are seen at forts such as Cefn Gaer, Newstead, Ribchester and Elginhaugh (where, unlike the fort interior, it was not fully excavated), alongside more traditional *vici* (Sommer 2006:118, Buxton and Howard-Davis 2000; Birley 2010:33-5). These have received multiple interpretations. Sommer argued that they were intended to shelter a *vicus*-style settlement of camp followers and traders in hostile regions (1984:18-22). Recently Biggins and Taylor at Birdoswald (1990) and Davies at Gelligaer (1990) have argued for an exclusively military use of the defended space, identifying internal buildings as *mansiones* and workshops (Sommer 2006:119). Where annexes and *vici* are identified at the same site, they are often clearly differentiated from one another (e.g. at Carriden, where they occupy opposite sides of the fort (Sommer 2006:120-2, *fig*.5.7). The annexe is an adjunct to the 'standard plan' that is only beginning to be understood. However, the limited excavation of these regions of forts, especially on the northern frontier of Britain, means they have produced little material culture (cf. Birley 2010:33-4). An exception to this, returned to in the next chapter, is Curle's influential analysis of the material culture at Newstead (1911; cf. Bishop 2012).

4.4.13. *The Parade Ground.*

The Roman auxiliary fort plan rarely included open areas of ground within the walls. James has contrasted this absence with modern military installations which include such spaces for training and drill (James 2011:172), although the act of constructing marching camps did serve this purpose when the military was on campaign (see **4.2.1**). The 'practice camps' identified at Loughor and Doldinnas, and in a cluster of sixteen to the east of Chester, may be examples of drill taken to a logical extreme, although it is not entirely clear if this was their actual purpose (Wilson was sceptical (1980:10-11); but Davies and Jones saw a training function for auxiliaries (2002:837-8)).

Figure 4.39. Hardknott fort (left) with parade ground on right (after Bidwell 1999:*pl.*2, *fig.* 11).

A plausible explanation for the presence of such spaces is that they formed training areas for cavalry, within which the skills of the troopers could be honed and demonstrated. The evidence for these is discussed at length in Davies (1968). The clearest example of a parade ground in Britain is that of Hardknott fort in Cumbria (see *fig.* 4.39). The association of decorative armour with parade ground activities such the *Hippika gymnasia* is discussed further in **5.3.5**.

4.4.14. *Summary.*

In this section, I analysed and synthesised architectural evidence from a range of fort communities on the northern frontier of Britain, in order to create an understanding of the key features of these sites. I have shown where there is debate or controversy over interpretations of these sites, and argued three things:

1) The variation in excavation methodologies used means there is a differential body of data from which to interpret the design and function of forts in this region. This has been acknowledged by the Hadrian's Wall Research Framework in its identification of

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priorities for future research (Symonds and Mason 1999b:12, 42-3, 47).

2) Nonetheless, the ideological underpinnings of the quasi-urban fort plan created habitual dispositions towards particular activities in the soldier's body, which consolidated their sense of belonging to a particular class of soldier, and to a wider military community.

3) There were frequently deviations from the pure 'standard plan', as individual forts were adapted to the needs of their garrison and the limitations of their environment. Inhabitation over time consolidated soldierly identity in relation to particular fort sites, but their common architectural ideology meant their subconscious understanding of space could be translated from site to site.

In the next section, the ideological implications of fort architecture to an institutional way of life are addressed.

4.5.1. *The institutional environment of the military: 'Not castles, but wolf-cages'?*

'The neat regularity of the exterior of the fort is reflected by the tight, orderly, rational disposition of the interior buildings: its planning spells efficiency and discipline.'
(Wilson 1980:14).

So far in this chapter, the fort plan has been discussed in terms of its origins and interpretation in case studies from the north of Britain. These represent a timescale of archaeological research that extends back to early antiquarian interest in Roman remains, but as discussed in chapter one, these interpretations arose from a tradition affected by colonial bias. Idealised accounts of Roman military discipline from authors such as Polybius and Vegetius were succeeded by interpretations of the Roman military that accepted these representations of order and discipline as exemplary of the progressive qualities of Roman civilisation. Recent re-evaluations of Roman imperialism have emphasised instead the negative effects of the Roman empire upon its population; the army as a tool of violence used to ensure the power of a small group of elites (e.g. Mattingly 2006, 2011; James 2011). I extend the argument here that the men used to accomplish this task were not simply automatons, boxed up in barrack blocks at night, nor were they simply dogs of war fed treats of donatives and booty, feasting at the close of battle then returned to their kennels. The Roman military was a complex institution that incorporated individuals with diverse social, cultural and ethnic origins into a system of practices and beliefs that was shared across the

empire. In this section, the built environment of the Roman *auxilia* in northern Britain is discussed in the context of institutional architecture, and a rationale for the military organisation of space is explored.

4.5.2. *The fort as institutionalised space.*

The relationship between discipline and the built environment in the Roman fort has been interpreted as reflexive; the ordered streets and rows of buildings representing the outcome of training, as products of the 'Roman War Machine' (e.g. Peddie 1994, McNab 2010, Dawson 1996:112); the ditched enclosure an expression of cultural and institutional separation from the outside world. This view posits the built environment as little more than a passive setting for military activities. Recently, the role of military architecture in defining and maintaining identities has been given significantly greater attention (e.g. Gardner 2007a, Revell 2007). The meaning of these buildings for their occupants went beyond being containers for everyday life; they were deliberately constructed and ordered to instil in them a particular ordered and disciplined way of life. This argument was presented by James:

> '(The) [a]ttachment of the soldier to the imperial regime was achieved through exposure to propaganda and ideological indoctrination, from saluting the standards to the perhaps subliminal impact of imagery on the coins in his pay. His new existence was framed within carefully created theatres of control; he found himself in the special physical environment of a military base – *in my view commonly designed more with surveillance and control of the soldiers in mind than with external functions or defence against perceived external threats.*'
>
> (James 1999:16; emphasis mine)

James subsequently located this surveillance network within the spatial layout of the fort(ress) plan (2011:172; cf. James 2007). The architecture of the camp or fort was based around the confined urban street, rather than the open space of the forum, in which people could mingle in the obscurity of the crowded public place. The closest parallel within the fort was the central crossroads, in direct proximity to the *principia* and heart of the plan. This cramped, coercive built environment, James argues, was intentional:

> '…[T]he layout reflects the concern – anxiety – of commanders to ensure surveillance and control of their men. The *principia* dominates the main axes and gates while … each barrack block usually has the centurion's accommodation nearest the perimeter. This was convenient for forming up cohorts to march out via the perimeter road, but also meant that the soldiers in barracks were ringed by their centurions… (even when built using stronger materials)

perimeter watchtowers were not projected out towards potential external danger…they still straddled the walls…[T]hese defensive circuits were designed against surprise attacks and infiltration, but sentries were likely more concerned with illicit movements of soldiers around or out of the camp…*If they were located with an eye to controlling provincials or threatening foreign foes, internally Roman military bases were designed for surveillance and control of concentrations of potentially dangerous men.* Not castles, but wolf-cages.'

(James 2011:172-4; emphasis mine).

James's analysis of the plan of the Roman fort is part of a reinterpretation of the Roman Empire that focuses upon the negative aspects of imperialism and colonialism, building upon the post-colonial studies of the past few decades rather than the classicising mission of previous centuries (see chapter one; James 2011:278-92; Mattingly 2007, 2011). Emphasis has shifted from the clockwork warrior; the soldiers were potent individual threats, who through discipline, leadership and the control of rewards and punishments are made not so much effective as safe (cf. Phang 2008:35-6). The plan of the fort, for James, echoes the later total institution, with the threat of observation and restriction of movement. I agree that this can certainly be seen in the internal placement of the allies in the Pseudo-Hyginian camps, where the least-trusted elements were overseen by the most-trusted, and the 'total institution' character of camp layout can be identified. The position of legionaries and auxiliaries within the internal hierarchy of the fort reflects their social position within the Roman Empire. Yet reconciling this with the position of 'ethnic soldiers' within the military, as discussed in chapter one, required a more complex interpretation of the construction of space within the 'standard plan' fort. In this section, the 'standard plan' layout is re-examined in order to establish how appropriate the application of this model is to the Principate auxiliary fort.

The first stage of this analysis is based upon the access analysis approach, here applied to key buildings within the 'standard plan' model (see fig. 4.40). This technique (Hillier and Hanson 1984) can be used to analyse the interactions between inhabitants of a form of architecture and the movements that enable these; this enables us to read architecture as a means of imposing order and demonstrating social status, by 'provid[ing] the material preconditions for the patterns of movement, encounter and avoidance which are the material realisation – as well as sometimes the generator – of social relations' (1984:*ix*). Access analysis has formed the basis of previous syntactical approaches to the analysis of Roman architecture (cf. Scott 1990, Grahame 2000:3-4); here I use it primarily to identify the spatial

syntaxes underlying fort architecture – in other words, the discursive techniques used in navigating around the fort. A weakness of Hillier and Hanson's approach is that it is most effective when the buildings studied are intact and in use so that patterns of use may be observed (cf. Foster 1989:42). As such its use here is primarily illustrative; however it will also provide context for the subsequent discussion of material culture in the next chapter.

Access analysis follows the principle that buildings are made up of walls and doorways which define, and allow control over movement between, areas within. These movements and areas are plotted as nodes and lines. In figure 4.40, a number of two- and three-room buildings are plotted, showing possible movements. Lines represent possible movements, empty circles represent rooms, and the crossed circle the outside (or 'carrier space'; Foster 1989:41). Each node is a certain number of steps from the carrier, indicating the depth of the room within the structure.
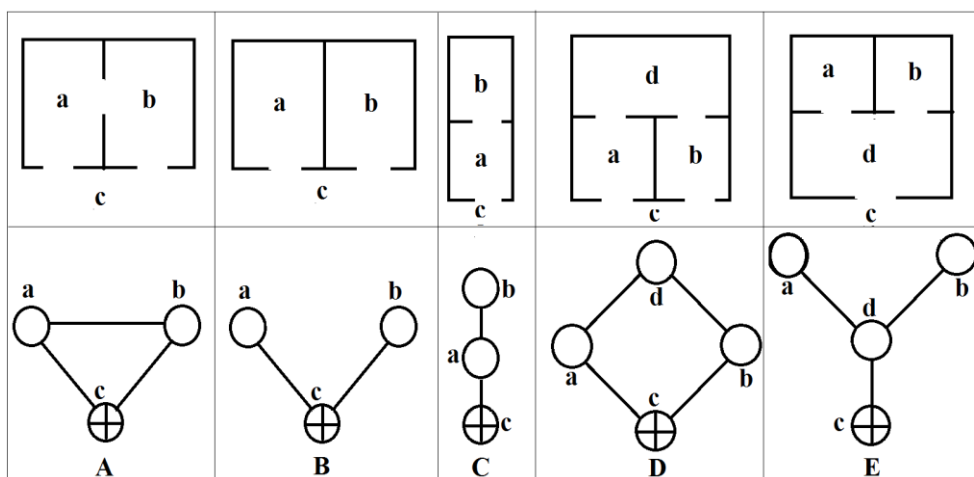
Figure 4.40. Symmetrical/asymmetrical relationships between rooms in access analysis (adapted from Foster 1989:43, *fig.*2). A: a and b are in a symmetric, distributed relationship compared to c. B: a and b are in a symmetric, non-distributed relationship in relation to c. C: a and b are in a non-distributed, asymmetric relationship with c. D: a and b are symmetric with respect to c, but d is asymmetric to both in respect to c. E: a and b are symmetric with respect to d and c; d is non-distributed and symmetric in relation to a and b (cf. Hiller and Hanson 1984:148).

Hillier and Hanson further distinguish spaces by their accessibility to strangers and inhabitants. Distribution relates to the means of access to a room, whilst a room's symmetry signifies its importance with regards to integrating or segregating space – a symmetrical set of rooms shares equal access to a given space, whilst in an asymmetrical arrangement one room controls access to others (1984:148).

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4.41a. Barrack block.

4.41b. *Principia.*

Chesters *Principia*

Room layout.

1. Front entrance.
2. Courtyard.
3. Basilica.
4. Office.
5. Office.
6. *Aedes.*
7. Office.
8. Office.
9. Strongroom.

4.41c. *Praetorium.*

Elginhaugh *Praetorium*

Room layout as interpreted by Hanson (2007:48-50).

1. Kitchen.
2. Bedroom/guest room.
3. Bedroom/guest room.
4. Bedroom/guest room.
5. Latrine.
6. Dining room.
7. Bedroom/guest room.
8. Bedroom/guest room.
9. Bedroom/guest room.
10. Servants' quarters.
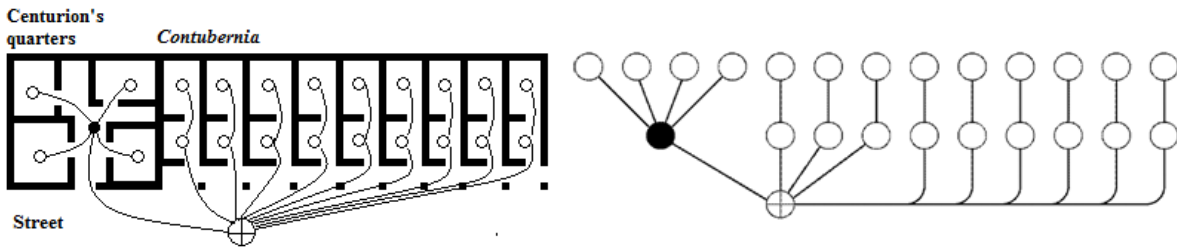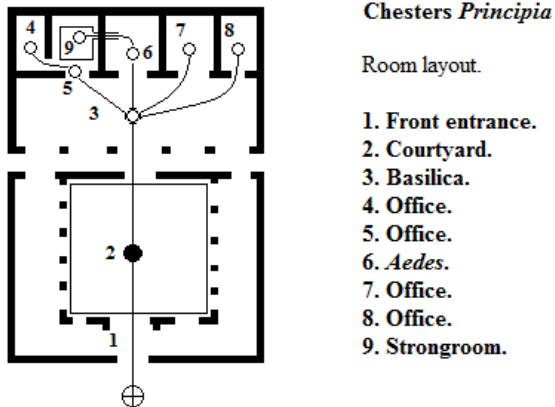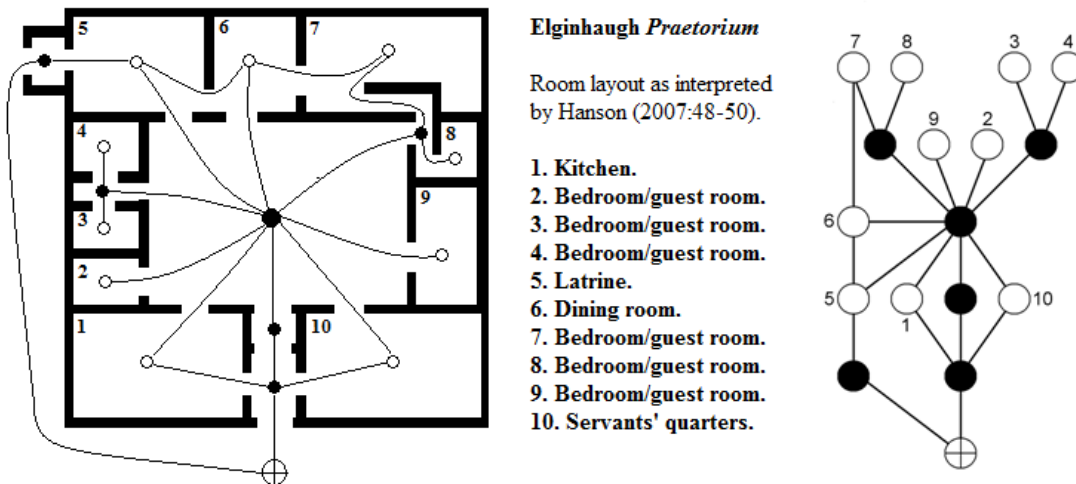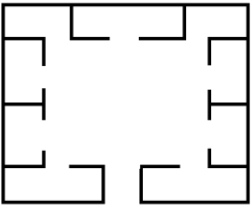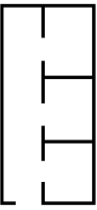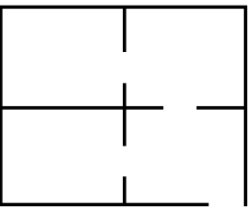
Figure 4.41. Key buildings types within the 'standard plan' fort, and their justified gamma analyses. A) Barrack block. B) *Principia.* C) *Praetorium.*

Having outlined the basic principles, this process of interpreting architectural space can now be applied to the Roman fort. Figure 4.41 demonstrates its application to three significant building layouts; the barrack block, the *praetorium* and the *principia*. These are based on specific examples (South Shields, Elginhaugh and Chesters respectively) that were selected

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on the basis of archaeological integrity; these were excavated and recorded in such a way that the position of interior walls and doors can be deduced. I have excluded the side entrances to the Chesters *principia* on the basis that they are unusual features that lead into the courtyard area. The plans are otherwise considered representative of their type for the sake of the argument made here.

The chart shown above reveals layouts typical of the 'standard plan' fort, demonstrating the differences – in terms of access routes – between building types. Each horizontal level indicates a barrier between encounters, separating inhabitants from the 'outside' (in this case, the exterior of the fort walls). The number of connecting nodes between areas also represents the degrees of separation between inhabitants of the fort. This diagrammatic approach makes clear a number of key characteristics of the Roman fort. First is that architectural space within the fort is extremely shallow: the majority of the accommodation, in the form of the barracks, is made up of only two rooms, leaving only one storage space between the sleeping areas of the soldiers and the main public space within the fort. Higher ranking individuals within the fort community occupied buildings with more rooms; this is evident in the enlarged centurial blocks and ultimately in the town-house form of the *praetorium*. These graded spaces afforded greater privacy to the occupants of these buildings, and thus more opportunities to orchestrate the performance of difference with visitors. The status of visitors were also graded through these divisions.

To explain this argument, I refer to Grahame's work on social networks in Pompeiian households. Grahame, following Giddens' concept of the 'social position' (1984:83-4) sought to explore the relationship between individual and collective identities (at the level of the household) as mediated through architecture (2000:74-6). He did this by distinguishing between collective spaces, in which inhabitants mingled together, and non-collective spaces, in which individuals could control who they encountered through the use of separated chambers. Architectural forms based upon open spaces emphasised collective, group identities, defined by the building. Building forms which incorporated private areas – marked by separate rooms within a building – emphasised individual identity, as inhabitants were able to control their interactions with others (Grahame 2000:75). Grahame presented a visualisation of building forms that best demonstrate these facets of identity (*tab.* 4.4). As buildings vary in complexity, so too do they differ with regards to identities emphasised.

Figure 4.42. How architectural arrangements reinforce different aspects of identity (after Grahame 2000:75, tab. 8.2).

Grahame's test group was a more complex urban environment than the 'standard plan' fort, but his reading of collective and individual identities into building forms is nonetheless useful here. The distinctive 'households' of the fort, the barrack blocks and the *praetorium*, occupy clear positions within figure 4.4. The distinctive central courtyard and surrounding rooms of the *praetorium* are indicative of type A buildings (as with Pompeiian villas; Grahame 2000:76-7). In buildings of this type, containing both a collective open space and private rooms, individual and collective identities are both strongly communicated. The scale and unique character of the *praetorium* within the fort context, as home of the commanding officer, also reflects this dual character of the building. The commander's house was set apart in this way from the barrack blocks. With eight men inhabiting one living space, these are best represented by building type B; within these collective spaces, group identity is strong and individual identities weak. This lived experience of most of the occupants of the fort is in keeping with the institutional character of the military. Soldiers had little opportunity to isolate themselves physically or socially from others within the military community within these collective structures.

Analysis of the fort plan also enables us to identify allowances for privacy and freedom from surveillance. By 'surveillance' I refer to here to the process of being observed by authorities – something Foucault has identified as crucial to the disciplining of individuals within an institutional environment (cf. Foucault 1977). The ultimate example of this process may be

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seen in the 'Panopticon' prison design of Jeremy Bentham, in which prisoners were constantly monitored by unseen wardens (1977:30); the architecture of these structures embodied the imbalance of power between the two groups.

The analogy to the prison, echoing James' argument as stated above, is an important consideration here. I discussed above how the early imperial marching camp contained auxiliary troops under the surveillance of the legions, and it may be argued that such a process of observation was central to military discipline. This is especially important if we interpret the fort community in the context of the 'total' institution, in which the imposition of rule by a central authority was paramount. However I believe that the 'standard plan' fort does not feature the expected characteristics of a space constructed entirely to discipline through surveillance; specifically, a context in which inmates are under constant supervision by authorities, or the apparent threat of such. Instead they were afforded some security from that, as the barracks did not have a line of sight to either of the central buildings of the forum, and centurion's quarters do not appear to have been positioned in such a way that they overlooked the blocks they were attached to. As such an imposing social influence for this architecture should be interpreted in the context of the 'greedy' institution, wherein demands are exerted through interpersonal relationships between members of the same, as well as differing status.

I believe therefore that the significance of the subdivisions of space within the fort extends beyond the simple organisational requirements of the Roman military, to frame a broader context of social interactions dependent upon multiple discrepant identities (Mattingly 2004, 2006, 2011; Gardner 2007a:211-2). As discussed in chapters two and three, these encompass a number of potential interactions, based on a broad range of aspects of identity such as gender, ethnicity and age, that were incorporated into military or other axes of identity – family, tribe, wealth social status and rank, for instance (Gardner 1994:217-18). These are not necessarily distinguishable from military identity; it is perhaps more accurate to say that militarism affects each other category of identity in a manner proportional to the extent in which the individual is embedded into the military institution itself.

Studies of identity in the Roman military have rarely addressed interaction amongst the members of the military community outside the official structure of the Roman military (e.g. MacMullen 1984, Horsfall 2003:103-115, Coulston 2004). Mattingly's application of discrepant identity to situate Regina of South Shields within the Roman military community

was an important step in this regard (2004:11; *RIB* 1065; see **3.2.2**). However, tying identity to physical space has proven problematic (Gardner 2007a:212-5; Allison 2004, 2006, 2013). Gardner's arguments relating to the structuring of space within the internal layout of the 'standard plan' fort is nonetheless appropriate here:

> 'The ideal model of a fort is certainly appropriate to the military as an institution…forts do have certain important common features: a regular boundary marked by a large barrier, a network of straight axes of movement; a central focus of sanctified authority: and a marked differentiated hierarchy of dwelling spaces [barracks, centurions' quarters, *praetorium*]…The external community is defined not only by the wall, but by the singularity of the internal arrangement of space….Members are both united and divided by architectural expressions of power, corporate homogeneity, and status distinction.'

> (Gardner 2007a:211-2).

Gardner's application of structuration (Giddens 1984) and organisational theory (Jenkins 2004) allow a further level of complexity to be added to our understanding of the built environment of the 'standard plan'. Roman military architecture at all levels reflected the social status of its occupants. As Davison has argued, the higher in rank a member of the Roman military was, the more likely they were to occupy a building with which they were familiar in civilian life; commanders lived in urbanised luxury, whilst the lowest ranking soldiers lived in dwellings developed from the simple tent rows of the marching camps (1996:154, 163); as discussed above, an institutional way of life that exposed them to continuous supervision by their peers. The non-residential buildings of the fort, from the *principia* to the workshops, reflected the identities of those who used them – or through exclusion, defined the outsider.

It is therefore beneficial to address the Roman fort as a cosmopolitan space. The urban model is a key reference point for the institutional architecture of the fort, with similar references and modes of encounter framed within each (*contra* Gardner; 2007a:20). There has been much debate in recent years concerning the role of space in the display and maintenance of identities in urban contexts, especially with regards to the extremely well-preserved urban site of Pompeii but also to urban sites in general (Bon and Jones 1997, Grahame 2000, Aldrete 2004, Allison 2004, Laurence 2007, Kaiser 2011; cf. Wacher 1995, Parkins 1997, Coudron 1998, Wilson 2003, Beard 2008, Revell 2009). The impact of the Roman Empire on the wider landscape through rural settlements and roads has similarly

received recent attention (Peterson 1998, Rush 1998, Poulter 2010). As discussed above, the analysis of space at civilian sites in the Roman world through techniques such as access analysis has also been undertaken (Hillier and Hanson 1984; cf. Clarke 1998, Grahame 2000). Applying these techniques to military architecture is problematic; whilst individuals constructing their own home have some control over how internal space is structured, the same cannot be said for soldiers within a fort. Nonetheless, research into urban and domestic contexts can be useful in understanding the construction of military space in the Roman world. In the following section, studies of Roman urban space are used to produce an ideological context for Roman fort architecture.

4.5.3. *Urban space and ideology in the Roman world.*

Roman civilisation has been defined by its cities. Rome itself was exceptional in the ancient world, with a population (*c.*1 million by the first century A.D.) unmatched in the western world until the modern period. New towns built by Romans nonetheless reflected the architectural forms of that city (Rykwert 1999, Aldrete 2004:1). Although only around ten per cent of the population of the Roman Empire lived within towns, those who did produced much of the history and archaeology from which modern interpretations of the Roman world are drawn (Aldrete 2004:2-3, Mattingly 2011). The earliest of these towns, built during the expansion of the early Republic, were colonies, built by soldiers and surveyors for retired veterans using the same skills and techniques used elsewhere to establish camps, replicating the orthogonal streets (Laurence 1997:8, Aldrete 2004:2; cf. Markus 1993:260). Living within these towns and cities instilled a particular form of *habitus* which made the layout, construction and occupation of marching camps and fortresses comprehensible to the legionaries of the early Republic. However, the question of which came first – the camp, or the urban plan – has caused much debate (cf. Frontinus *Stratagems* 4.1.14, Plutarch *The Parallel Lives, Pyrrhus* 14). Were new towns an enlargement and formalisation of the regular order imposed by military discipline; a rational division of space that ensured a population could be observed and controlled in a similar manner to soldiers in a camp? Or was the camp merely '...a diagrammatic evocation of the city of Rome, an *anamnesis* of *imperium*' (Rykwert 1999:68)?
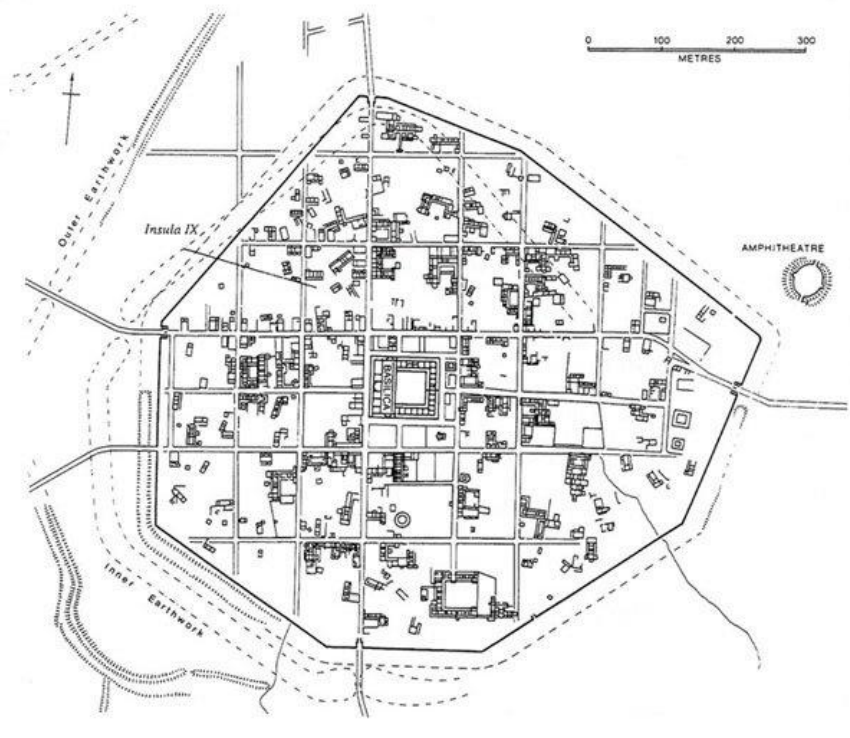
Figure 4.43. The town of *Calleva Atrebatum* – capital of the Atrebates, rebuilt to a Roman grid plan in the mid-first century A.D. (after University of Reading 2010).

The town-born Roman soldier, legionary or auxiliary, would have found much to recognise in the 'standard plan' fort, as it reflected the arrangement of urban space in the Roman world as much as that of the legionary encampment (Rykwert 1999:48). Yet as Rykwert has argued, the legionary camp – and later, the auxiliary fort – was impossible to comprehend without an understanding of the ideological role of the form of the Roman town (1999:68). The founding of a Roman town was a ceremonial procedure invoking a ritualised set of actions around a central focal point (in the town, the *templum*; in the Polybian camp, the general's tent) and a sacred boundary (the walls of the town; the camp embankment; see *fig.* 4.43). This area was sacred space, ordered and defined on a cosmological basis, and subject to the approval of the gods (1999:28, 46; cf. Livy 6.41). Each stage in this process was governed simultaneously by rationality and superstition, as the divination of the flight of birds (augery) accompanied a rationalised system of planning – the latter no less mysterious for its skilled practice by surveyors (1999:60). The end result was a pattern of core features which constituted a universally replicable town plan.

Movement within this ordered arrangement of buildings in the form of the 'standard plan' can be appreciated through Lynchian analysis (Lynch 1960; cf. Malmberg 2009, Kaiser 2011). Lynch (an urban planner) established a hierarchy of elemental 'images' by means of which

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the inhabitants of a city could sustain a mental map of their surroundings. These images could be subdivided into five categories: paths, edges, districts, nodes and landmarks (Lynch 1960:46; see *tab.* 4.4). 'Paths' are linear navigable channels, such as roads and canals, from which the settlement is observed. 'Edges' are linear features not used as paths which formed boundaries or breaks in continuity (such as walls or other more subtle dividing lines). 'Districts' are areas into which viewers can enter and which share a common identifying character. These are reference points both for those within and those on the outside, viewing the exterior. 'Nodes' are strategic points, marking the convergence of paths or central meeting points; where these are located at focal points within a district they are referred to as 'cores'. Finally, 'landmarks' are reference points, but unlike 'districts' are solely external. These range from monumental features and structures, such as hills and church steeples, to smaller local signs such as street signs, trees, and other street furniture (1960:47-8). Lynch's study of orthogonal American city plans is applicable to the study of architecture in the Roman world.

Lynchian images	Examples
Paths	Roads, fort streets, paths between buildings.
Edges	Fort walls, gates, entrances to dwellings and administrative spaces.
Districts	*Vicus*, barrack blocks, *principia*, bath-house.
Nodes	Gates, front of *principia*, road junctions outside fort.
Landmarks	External features (bath-house, *manses*, cemeteries, training grounds), main street in *vicus*, monumental gates, central range buildings.

Table 4.4. Lynchian labels applied to fort features.

This experiential framework of 'images' can be seen to have applicability within the context of the Roman town as well as the Roman fort, and indeed, the former has been well served in this regard (e.g. Corlàita 1979, Macdonald 1986, Zanker 1987, Favro 1996, Malmberg 2009, Kaiser 2011). The difficulties of tracing movement within complex urban centres has often lead to a focus on just a few elements of Lynch's approach, such as nodes and landmarks; even then, often only the most significant thoroughfares and political monuments are addressed (Macdonald 1986, Favro 1996). However, some have utilised the complete range (Malmberg 2009, Kaiser 2011). The importance of paths, both as points of reference (narrow alleys are objectively and subjectively different to broad thoroughfares) and as active sites of activity has increasingly been acknowledged, with Lynchian analyses of 'paths' being used to establish roads as meaningful and symbolic in their own right (Laurence 2007, 2008, Malmberg 2009, Kaiser 2011).

These studies have illuminated the process of navigation within cities in the ancient world, *via* the complex interplay of signs, paths, nodes and landmarks in urban environments. In huge cities such as Rome, the absence of street names (other than for the largest of through-roads) and house numbers meant their inhabitants relied upon a plethora of landmarks, ranging from city gates to individual buildings and businesses (summarised in Kaiser 2011:7-12). For this reason navigation relied on distinctive landmarks, and narratives that connected them to direct a traveller to their destination. This could bring status to an address, by connecting it to the most prestigious parts of a city (Kaiser 2011:8-9). Martial illustrates this process:

> 'Go in my place and present my greetings, book. You are bidden to proceed in duty to Proculus' handsome house. You ask the way? I'll tell you. You will pass the temple of Castor, close by ancient Vesta, and the house of the Virgins. From there you will take the Sacred Slope and make for the august Palatine, where shines many an image of our exalted leader...Make a turn at the dwelling of tipsy Lyaeus, where stands Cybele's dome with its painted Corybants. Right ahead on your left the shining façade of a mansion and the hall of a lofty house await your approach. Seek this house…'

(*Epigrams* 1.70)

Martial's book is given a tour of Rome on its imagined journey to its recipient, encountering nodes and landmarks that reflected the status of his patron. (The Augustan poet Ovid opened a poem with this technique whilst in exile, the city recalled with nostalgia; *Tristia* 3.1.24-34). He directed his book as a native of the city would direct a traveller reliant upon local knowledge for guidance, and implicitly cannot resist the temptation to highlight finer aspects of Roman culture. Ultimately, directions could only approximate the exact location of an individual, and the final point of reference for a traveller seeking a private residence would be the name of the owner of the property; the last stage of the journey would involve directions from his neighbours or, if he was wealthy, his clients (Ling 1990:211). This approach applied to the delivery of mail to individuals of lower status as well, as can be seen in the writing tablets of Vindolanda and Vindonissa (see **3.2.4**; some refer to locations within the fort in their addresses, probably reflecting a local origin: *Tab. Vindon.* 43, 44, 45; Speidel 1996:184-91).

Of course, the auxiliary fort was a much simpler form of settlement than the town, and its occupants would have been considerably less reliant on intimate knowledge of secret corners.

Nonetheless, there were structural similarities. Both had ritualised 'edges', outside of which the dead could safely be interred, in the form of walls punctuated by gates (Rykwert 1999:28). The focal point of the street plan was also the centre of the fort community; the *principia* was the administrative heart of the fort but the *aedes* confirmed its importance as the spiritual home of the unit itself, containing the standards of the unit (cf. Haynes 2013:218). As forts became more permanent, the connections were more apparent; the votive deposits associated with the foundation trenches of *principia* recalls the sacrificial deposition of material during the founding ceremony (e.g. the Flavian hoard of 45 denarii at Elginhaugh; Bateson 2007:268-70, see **5.2.1**).

In the domestic context, the higher status housing of the centurions' quarters and the *praetorium* most closely resemble their urban architectural counterparts, demonstrating proportionately higher wealth and status through the use of elaborate architectural features, from columns, painted walls, and floorboards to private latrines and corridors. This continuity of form was representative of the high status of the officer class within Roman society (Davison 1996:154, 158). The commander's house in auxiliary forts is modest compared to the double courtyard houses of Pompeii (Grahame 2000:79), but nonetheless reflected status through size and separation from the domestic areas of the regular soldiers. The *contubernia* were by contrast utilitarian, reflecting the cramped accommodation typical of Roman urban life for the lower classes (Davison 1996:154). Meanwhile, as discussed above, there was a strong continuity of form and function between the civil basilica *forum* and the military basilica *principia* (Gardner 2007a:115).

The fort community was not bounded by the physical walls of the fort, and the space occupied by the *vicus,* the bath house and the parade ground must be integrated within this understanding of the footprint of the Roman fort. In the absence of physical boundaries, except in the occasional case of military annexes, other social methods of exclusion should be anticipated as means of controlling movement within the fort community. The difference in space allocation for the individual soldier, compared to that afforded the centurions and to the *praetorium* in forts and fortresses alike, reflected a power differential within a hierarchy of structural forms that was comparable to that of the Roman town (Gardner 2007a:106-7, 211). Private space as in the Roman town was the prerogative of those with high status, and interactions between the general populace were focused in public, communal areas – the streets, the *principia*, the industrial and storage areas, the bath house, the *vicus* (cf. Kaiser

2011). The distributed nature of interactions is returned to in the following chapter, but here it should be noted that the identification of spaces in the fort with specific functions is one that should be made with some caution. As will be shown, there was a great deal of flexibility with regards to the use of space that reflects a more pragmatic than dogmatic utilisation of architecture.

Where new towns were built for native populations, this imposition of urban space had a significant impact on the formation of civilian identities (Wacher 1995:43-4). For the auxiliary soldier who was not raised in a town, and for those raised in the frontier provinces this was also the case, as they had less freedom than the native elites did to affect their built environment. For auxiliaries from the Germanic regions of the empire (for example, the Batavians discussed in chapter one), the experience of urban life was not one they would initially have been familiar with (Carroll 2003:22). Indeed, the Batavians reacted strongly against Roman urbanism during the events of the revolt of A.D. 69, burning down their own capital at Nijmegen (Tacitus *Histories* 5.19, Carroll 2003:29). Urban living had not been a characteristic of Batavian life beforehand: only the elite aristocratic families, granted citizenship by Caesar (the *Iulii*), lived within the town at Nijmegen, whilst the majority of the population remained in the countryside. This town (*Oppidum Batavorum*) had been primarily occupied by immigrant traders and workers, supporting a social infrastructure in which only the elite played a significant role. The destruction of the town was an attack on an occupying force; nonetheless, the majority of Batavians were not receptive to urban culture (Van Enckehort and Thijssen 2003:64).

4.6. *Discussion.*

Over this chapter, I have analysed the role of fort architecture in imposing ideological constraints on the inhabitants of the fort community. Inhabitants of the fort community shared in a distinctly Roman cultural discourse, living in a built environment encoded with specifically Roman ways of living (cf. Revell 2009:36), and which in the north of Britain contrasted sharply with native settlement patterns (cf. Buxton and Howard-Davis 2000:414-5). This contrast ensured fort communities were distanciated from communities within them.

This top-down perspective was especially useful for examining the socially and culturally divisive nature of the Roman military; few boundaries in the ancient world were as

intimidating as the rapidly erected systems of ditches and palisades of the marching camps, or the stone walls and gates of the permanent forts. However, in isolation they do little to illuminate the mundane activities of everyday life for the occupants of these forts and their civilian neighbours. As my analysis showed, space within the 'standard plan' fort was relatively shallow; with little privacy available, many activities were carried out in public or semi-public places. It was through these activities that identities were expressed; to *commilitones*, to family members, to civilians outside the fort walls, either friendly or hostile to their presence. The distinctions between functional identification of building morphologies and actual social use should therefore be considered when studying the construction of communal identity at military sites. Even the expression of particular kinds of identity could vary depending on the activity's location in space; military identities could be expressed in different ways on training grounds compared to within barracks, as different behaviours are required in each location (cf. Woodward 2003). Communal bathing and toilet facilities also offered opportunities for the establishment of social bonds (a timeless aspect of military life, Duffy 1987: 162). As discussed in chapter one, Roman military studies have increasingly addressed the role of morale in military contexts, and how the establishment of this through the construction of strong primary group bonds was a key component of a distinctly military institution. In the context of the Roman military, these were primarily the *contubernales*, the eight mess-mates who shared living accommodation, official rations, and endured the privations, and benefits, of military life together (MacMullen 1984, Goldsworthy 1996:257, James 1999:17; for this size group in historical and modern militaries cf. Duffy 1987:131, King 2006:505). These soldiers were situated within an architectural context that reflected their separation from civilian society and incorporation into an institutional setting. Within the fort, the soldier was subject to continuous surveillance – albeit not quite in a manner befitting the 'total' institution. Rather than being subject to observation from a central authority, it was by his peers – his social circle – that a soldier was judged. This held true at each level of the military hierarchy. The incentives to conform to this institution, to devote service to the military, were based more upon concepts connected to the 'greedy' institution; the establishment of normative behaviours within this context was the result of negotiation between individuals and the use of social and material incentives (cf. Segal 1986:12).

The effect of fort architecture was therefore to establish a nested, stratified system of social groupings, which emphasised the formation of the primary group of the *contubernium*, but

also imposed institutional roles upon those of higher rank within the site: the centurions and commanding officers. With their prominent dwellings, they were also subject to observation by their subordinates; although their more luxurious homes afforded them greater status, they were also subject to greater scrutiny in return. This pattern of occupation is very similar to that observed within the layout of Roman cities such as Pompeii; close-knit dwellings, interspersed with the homes of the elite.

I would also emphasise the effects of standardised architecture on those excluded from its occupation. Although the residences and workplaces of soldiers were prescriptive and assured, the non-combatant members of the military community were less firmly established, and as such their position was materially dependent upon the fortunes of the soldiers (cf. Segal 1986:13). The design of forts has been argued to exclude those who were not members of that institution, but as discussed above the extent to which non-soldiers were excluded from the interior of the fort has been called into question, especially in the case of women (cf. Driel Murray 1997, Allason-Jones 2005, Allison 2006b, Birley 2010, Greene 2011). The military community included people who were not soldiers themselves; the need to view architecture outside the experience of the most privileged inhabitants is a theme reflected elsewhere in Roman urban studies (eg. Grahame 2000, Revell 2007, Kaiser 2011). Over the course of this chapter the physical setting of these activities has been critically examined, but a closer study is required to understand the performance of these identities at an individual level. Beyond the soldier/civilian (or soldier/native) dichotomy, a range of alternative experiences of architecture must be considered, based on divisions as broad as age and gender, but also with relation to professional identities within the organisational hierarchy of the Roman military. Some of these alternative networks of identity were introduced within the last chapter, in the context of the Vindolanda tablets. A small finds analysis incorporates the physical traces of interaction with material culture, which builds upon this textual foundation. The daily activities of a blacksmith differed from those of an *immunis* with administrative duties in the *principia*, for instance; not only might these roles ensure they worked in different areas of the fort, but the differing skill sets required for each task would impact upon their individual identity and involvement within military life. The individual experiences of these men are a small part of the nearly infinite combinations of activities that led to the establishment of a broader Roman identity (cf. Revell 2009:*ix*).

Chapter five. Material culture and identities in the Roman military community

5.1. *Material culture: introduction.*

In this chapter, I analyse the small finds of Roman fort communities in the north of Britain. This study builds upon the architectural material covered in the previous chapter by addressing the everyday occupation and usage of these structures, and how material culture was used in the embodied expression of discrepant forms of identity by a range of members of the fort community. Here I argue that these expressions of identity both conform to and challenge our expectations of the 'greedy' Roman military institution explored in previous chapters. I investigate the routine practices that shaped everyday life in the fort community, and interrogate the small finds data for patterns of use within different domains of work.

Recognition of the potential of small finds as a source of information about identity is a comparatively recent development within archaeological theory (cf. Deetz 1977[1996], Kopytoff 1986), and the field is often regarded as the exclusive interest of specialists in discrete categories of material culture (Allison 1997, Willis and Hingley 2007:2; cf. Allason-Jones 2011a, Hunter 2012). Materials such as pottery, stone and metal dominate finds assemblages, whereas organic materials rarely survive taphonomic processes, especially in temperate soil conditions (cf. Carrington 2008:19). As such this chapter addresses multiple sources of evidence, as artefact usage in particular social and architectural contexts within the fort community is synthesised from small finds reports and literary sources from across the northern frontier (see **II.1-39, III.1-8**). These artefacts are categorised by domain of activity, in order to identify activities within the fort community through which discrepant identities could be performed.

The study of Roman material culture in the 1970s and 1980s was dominated by Processual or 'New Archaeology', characterised by its preoccupation with typologies into which categories of material culture could be inserted (Clarke 1968, cf. Hurcombe 2007:54). This approach underlay many subsequent studies of Roman small finds, especially of militaria (e.g. Robinson 1975, Manning 1985a, Bishop 1987:109, Evans 1994, Spradley 2001; cf. Rikke 2012). The criteria for these categories ranged from unambiguous and objective (swords have sharp edges; spears were mounted on a shaft) to subjective interpretation – e.g. whether

a weapon was used for hunting or warfare (Bishop 1987, 2002a, Bishop and Coulston 2006). These divisions were often arbitrary, and proved difficult to sustain as category assemblages expanded over time (Marchant 1990). It proved necessary to explore the ideologies behind artefact usage. The role of material culture in defining and mediating imbalances in relative social status has been increasingly appreciated (following Deetz 1977[1996]), and in the past few decades, Roman archaeologists have begun to engage with the broader post-processual project in this field (e.g. Cumberpatch and Blinkhorn 1997, Gardner 2003b, 2007b, Gosden 2005, Hingley and Willis 2007, Hurcombe 2007). There have also been significant recent holistic studies produced of material culture, within military identity studies (Nicolay 2007) and spatial studies (Allison 2006b, 2008a, 2008b, 2013, Gardner 2007b, Jijek and Breeze 2007). These have been influential to this chapter.

To acquire the data utilised in this chapter I examined reports from a number of sites on the northern frontier, selected on the basis of the quality of the reporting of their small finds reports: these sites were Vindolanda (the timber forts), Elginhaugh, Housesteads, Hardknott, Ribchester, South Shields, Wallsend, Birdoswald and Carlisle (see Appendix **III**). From these I synthesised data regarding the distribution, categorisation of use, and deposition of items. I also utilised secondary, indirect evidence for artefact presence and use (discussed below). Once identified, these items were related to specific categories of identity, reflecting different arenas of interaction within the fort community. This approach to material culture in the context of Roman military studies was utilised by Allason-Jones in two papers addressing the small finds assemblages from forts on Hadrian's Wall. She divided artefacts into four categories, covering 'military studies, gender studies, industry and technology, and domestic' (Allason-Jones 2002a:113, 2002b:821). This approach was developed in a later paper relating to quotidian artefacts that do not survive archaeologically – e.g. those made of organic materials, or which were subject to repeated recycling and reuse. Evidence for these must be surmised from other sources, discussed in greater depth below (2008:41).

These categories form a framework for this discussion, with some refinement. Gender identity is not wholly encapsulated within a particular class of artefacts and should be considered as a socially constructed aspect of identity, which is referenced through a wide range of activities and interactions (Knapp 1998:96, Voss 2000). Although the presence and roles of women in Roman military communities have received much attention in recent years (e.g. Driel-Murray 1995a, Allison 2006b, Brandl 2008a, Greene 2011), conflating sex with

gender is problematic. Gender divisions should therefore not be approached solely as a dichotomy of male contrasted with female items in a Roman context, as this tells us little about the performances of gender that they entailed, even if such identifications could be reliably made (Allason-Jones 1988, 1995, *contra* Allison 2006b). Masculinity too is not monolithic, instead representing a multitude of positions and relationships. Within the hypermasculine context of the military institution, men display subservience to superiors and masculine control over inferiors simultaneously (see **2.2.1**; cf. Enloe 1988:13, Higate 2003a). This could be demonstrated through the privileged use of material culture connected to power and dominance – in this context, specifically militaria – or through other forms of interaction, in particular the duties of production and maintenance that dominated life within the fort community. As Phang has argued, this work also demarcated status and identity, as only some forms of labour were considered appropriate for soldiers (such as castrametation: **2.2.4**) as they demonstrated the appropriate military, masculine *virtus*; others, lacking this cachet, were suitable only for slaves and other non-military males (2005:204-5). This distinction will be an important part of my analysis in this chapter.

The remaining categories constitute clear divisions in artefact usage and corresponding identities. Over three sections, the material culture of Roman fort communities relating to the bodily performance of identity through these three categories is analysed within this institutional context. 'Militaria' covers the archaeological and historical evidence for the panoply of the Roman auxiliary soldier in this period, as well as aspects of material culture which are directly related to military hierarchy and organisation. Within this section I analyse how military identity was performed – and controlled – within the fort community. 'Craft and industry' covers the tools, raw materials and by-products of the craft activities associated with the supply and maintenance of both military and domestic items, as well as the social role of craftsmen in the ancient world. In this section I identify classes of craftsmen and potentially women (including some named individuals) whose skills and activities served to connect them differentially to occupants of the fort and to the wider area. I survey the locations and material attributes of this work, in order to investigate the display of discrepant identities connected to these roles. In the 'consumption' section I analyse the procurement and consumption of foodstuffs, in relation to medical practices and to diet. I am interested here in how the 'body' of the auxiliary was structed through consumption practices, and how this reflected personal agency. Finally, I discuss the small yet distinctive category of 'souvenirs', an artefact type that reflects more than any other on the interactions

between the military community on the northern frontier and native Britons. These categories are not entirely exclusive, as artefacts carry multiple meanings in different contexts, and carry significance even to those not making direct use of them. These categories serve to structure the discussion, not to imply absolute boundaries between individuals within the community based on artefact usage.

The focus of the analysis of production is not on the categorisation of tools, which has been covered in depth by other scholars (e.g. Ulrich 2007, Sim and Kaminski 2012), but on their social role in communicating status and role within a community of individual and collective identities (Hurcombe 2007:6-7). It is important to note the low social status of craftsmen within the Roman world, and to question how this impacted their standing within the military community (cf. Ulrich 2007:7). Some of these craftsmen were soldiers; others were family members, slaves, or civilian entrepreneurs. Local farmers and itinerate traders were also important to daily life in the fort. Together, soldiers and civilians produced artefact assemblages that reflected the social context of the fort as well as its economic relationships with other frontier fort communities; addressing these composite assemblages is essential to understanding the role of artefacts in these assemblages in signifying particular forms of identity (Allason-Jones 1999a, Van Enkevort and Thijssen 2002:40). This is especially important when items assigned a purely military identity are recovered from sites thought to have been solely civilian in character (e.g. Driel-Murray 1999, Reis 2002, Van Daele 2002).

5.2.1. *Contexts of material culture evidence.*

One profitable avenue of investigation of Roman sites has been the use of GIS (Geographic Information System) packages to map the spread of deposited artefacts, and thus place activities and identities within fort architecture (Allison 2006b, 2008a, 2008b, 2013; Gardner 2007a, 2007b; cf. Birley 2010:5, Giles 2012). These have identified patterning of artefact types but must be received with some caveats. The contextually dependent nature of artefact deposition in Roman forts should be considered when the use of artefacts in different regions of the fort is examined. Activities associated with the building or demolition of a fort may entail the loss of artefacts unrelated to the function of the building, such as tools (Bishop 1985:18, Bishop and Coulston 2006:27). Further large assemblages originating during the occupation of the fort are rubbish dumps that contain accumulated material from multiple regions of the fort. This problem is especially exacerbated in the case of organic materials,

which survive only in waterlogged contexts such as ditches and pits used as dumps (especially leather; cf. Driel-Murray 1985:43, McCarthy 2013:*x*).

Isolated artefact finds may better represent the use of items in particular areas of the fort or *vicus,* if the loss is assumed to be accidental. This should be taken with caution for larger, valuable items such as weapons and whole pieces of armour; such items would be near impossible to lose accidentally, although the same could not be said for individual components, as discussed below. Other finds – hammer scale, scorch marks, offcuts – are indications of industrial processes such as metal- and leatherworking (see below).

Identifying assemblages as hoard deposits has implications when it comes to tracing the significance of buildings within collective or individual identities. Many significant weapon and armour finds in Britain and northern Europe have been interpreted as ritual deposits rather than resulting from casual or accidental loss, from the third century bog deposits of swords in Scandinavia to the deposits of cavalry helms at the Batavian *civitas* capital (Illerup Ådal, Nydam, Vimose: Rald 1994:227; helms: Enckevort and Willems 1994:134; cf. James 2004:234, Nicolay 2007:181-9, Garrow and Gosden 2012:158-60). Individual artefacts can be identified as ritual deposits, such as those found in building foundations. One example is the Mainz-type *gladius* found inside a mid-first century Roman bridge across the River Meuse in Belgium; the blade was bent in sharp angles (Berghe 1996:63; cf. Garrow and Gosden 2012:128, 297). It is notable that the sword, an older form, had been well used, and perhaps held more significance as a foundation sacrifice because of that (1996:63). Militaria has also been found in apparently votive contexts on the northern frontier; such as the ringmail vest from a barrack block construction trench at Wallsend, and the two bent swords from the Newstead pits (Hodgson 2003:217, Garrow and Gosden 2012:297). Ritual offerings such as coin hoards or burnt organic material are occasionally found within the foundations of buildings such as the *principia* that suggest a public act of dedication (e.g. Elginhaugh: Bateson 2007:270; cf. Johnson 1983:42-3, 305. This may be equivalent to the urban *mundus*: Rykwert 1999:68, see chapter two).

Ritual deposits are often characterised by the deposition of high-status objects, but mundane finds also provide insights into quotidian artefact usage. These assemblages typically enter the archaeological record at the end of the fort's life cycle, when the garrison decamps and buries items to be left behind. The deposit of nails at Inchtuthil is an example of this (Pitts and St. Joseph 1985), as are the demolition layers at Vindolanda (Birley 1994a), and the

Newstead pits potentially another (Curle 1911:113-4, Manning 1972, Bishop 1985:7-8; cf. Clarke 2000, Fulford 2001, Hingley 2007). These final acts of deposition may have had a ritual significance, signifying the end of occupation at the site. The Newstead pits have however been interpreted as a continuation of Iron Age traditions (local, or from the homeland of the garrison) of demarcating boundaries through votive deposits (Clark and Jones 1996, Hingley 2007:228). As Hingley noted, not all iron deposits are necessarily votive in nature (2007:238), but nonetheless aid our understanding of industrial processes within the fort community. The Corbridge hoard (see below) gives an example of a problematic assemblage with regards to such interpretation.

There are significant taphonomic issues that must also be considered in the study of Roman military equipment in Britain. The limited survival of ferrous and organic materials has resulted in the significant loss of much of the material culture used by the inhabitants of fort communities (Allason-Jones 2002, 2008b). Within the archaeological record of Roman Britain, there are however a number of particular assemblages that stand out as especially worthy of closer attention, consisting of materials often lost to taphonomic processes. These survivals are key sources of evidence for the use and character of material culture within Roman fort communities.

5.2.2 *Textual evidence and material culture: The Vindolanda and Carlisle tablets.*

The northern frontier of Roman Britain provides one excellent category of secondary evidence for material culture usage. The Vindolanda tablets, discussed in previous chapters, also play a significant role in our understanding of military procedure, supply and maintenance systems. They also contribute a human element to the material remains, adding emotional depth to our understanding of life in the fort community. Importantly, they can also be associated with specific architectural features and contexts within the history of the fort, and so inform our interpretation of the history and functions of these contexts.

The Tungrian cohort arrived in A.D. 85 (Period I). A daily troop strength report found in the innermost defensive ditch associated with this period showed that of a paper strength of 752 soldiers, just 296 were present at the fort, the bulk of the remainder away at *Coria* (probably Corbridge, 12 miles away; Birley 2002:60, 2009:47). This proved that forts were not consistently fully occupied. The Vindolanda plateau is extremely uneven, so these ditches were dug into pre-existing hollows (Birley 2009:42). The later forts utilised thick layers of

clay and turf as foundation levels over the demolished buildings; this sealed the earlier contexts from surface water while creating anaerobic conditions ideal for the preservation of organic material (2009:42-4; Hadrianic contexts were more level, and so less well preserved, Birley and Blake 2005:*viii*). The outer ditches contained a broad range of artefacts, including a wooden toy sword, leather offcuts, and a range of wooden objects, from combs to barrel bungs, which indicate a thriving extramural settlement existed outside this reduced garrison (2009:47-8).
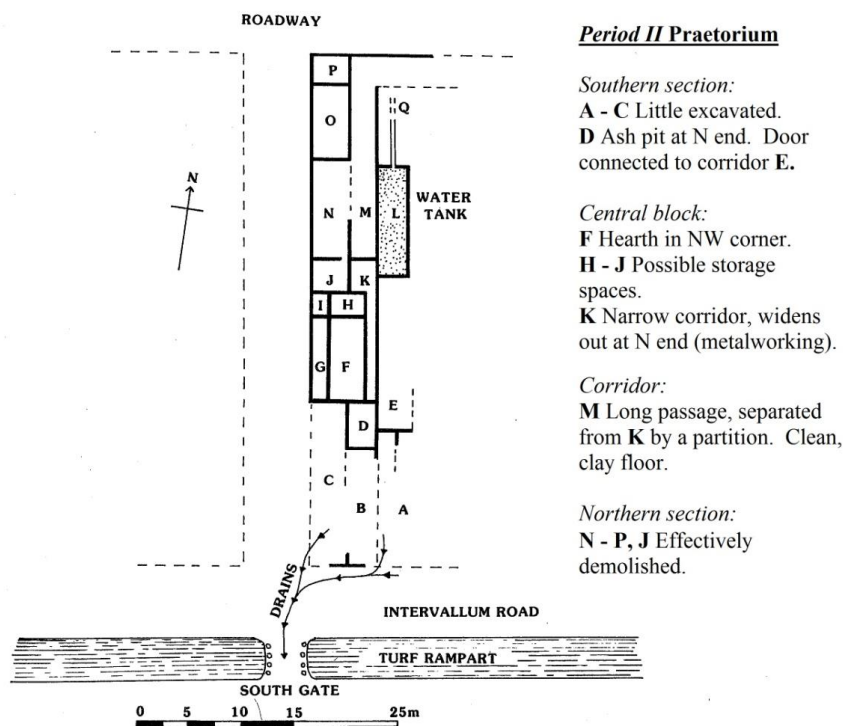
Figure 5.1. The excavated area of the Vindolanda Period II *praetorium*; with key features (after Birley 1994:41, *fig.* 19).

The Ninth Cohort of Batavians replaced or joined the Tungrian regiment in Period II, expanding the timber fort (see *fig.* 4.11) to house the larger garrison (named in *Tab. Vindol.* II 282, 396). The excavated area here covered the western side of the *praetorium* (*fig.* 5.1). Subsidence afflicted this building, and post-construction methods of levelling utilised thick layers of bracken and clay to form laminate flooring (Birley 2009:51). In small, dark rooms, this thick carpeting invited the deposition of waste material, from old items of footwear to dirty cloths and animal bones. Changed on an annual basis, the finds from this flooring indicated the uses of the rooms over the year (Birley 2009:53). The central rooms and

corridor (F, G, H, I and K) had thicker layers of bracken due to greater subsidence in these rooms, and contained a great deal of leatherwork, textiles, and metalworking products (Birley 1994:43-5). This suite of rooms apparently served as a workshop. The northern block contained a more domestic assemblage, including stylus pens, a gold ring, and items of clothing including a child's shoe (Birley 2009:57-8). The water tank, L, contained a range of leather cutoffs and metalworking apparatus including a crucible (2009:57). Although the small finds suggest a workshop, the writing tablets - a mix of official reports and personal correspondence − supported the identification of the building as a *praetorium* (Birley 1994:52).

Period II buildings were characterised by hasty construction; those of Period III were substantially better built, perhaps indicating a refurbishment rather than a change of garrison (Birley 1994:53; the timber forts of Carlisle showed a similar development, Zant 2009:*xvii*). It is possible that the Ninth Cohort were joined by the Third Cohort of Batavians in Period III (Bowman 2003:19, *Tab. Vindol.* II 263, 311). Recent excavations have also shown the presence of legionary troops involved in the construction of a short-lived but massive timber complex at the west of the extramural area (Birley and Blake 2007:*xii*, Birley 2007:2). Either or both of these would increase the profile of the fort and require enlarged facilities.

It is from this period and garrison that the bulk of the writing tablets were recovered, including the substantial correspondence archive of the prefect Flavius Cerialis (e.g. *Tab. Vindol.* II 225-290, *Tab. Vindol.* III 619-634; cf. leatherwork stamped with 'CIXB', Birley 2009:63). This personal collection also confirmed the building as his residence. Period III ended with the withdrawal of the Batavians to participate in Trajan's Second Dacian War (Bowman 2003:19). This was a sudden departure; writing tablets intended for destruction in bonfires in the southern yard (*fig.* 5.2; VIA) were scattered by heavy winds, and rainfall prevented the complete combustion of material (Birley 1994:90; a further bonfire by the south gate was excavated in 1993; Birley 2009:82). This was accompanied by a hasty period of activity that involved the repair and construction of leather items including tents and shoes (see **5.4.4**). These circumstantial and environmental factors, combined with the anaerobic conditions of the site, led to the high level of preservation of documents associated with this period in the fort's history (other issues relation to deposition and taphonomy are returned to below).

Period III Praetorium

Southern yard:
VIA Open yard
VIB Open yard/covered corridor

Southern block:
I, IV Thin partition wall between. No hearths.
III Unexamined
VII Courtyard(?), stone flooring
VIII Kitchen, clay floor, clean
V Adjunct to kitchen

Western range:
IX Entrance hall, leading to **XII**, hall. No access to southern block.
X Extremely dirty laminate flooring
XI Cleaner than **X**, N wall plastered.
XV, **XVI**, **XVII** Small rooms, clay and laminate flooring
XVIII Workshop. Floor covered in ash, coal dust, charcoal. No hearth or forge.
XXI Verandah on north face of building, clean.

Eastern range:
XIV, **XIX**, **XX**, **XXII** Only c.2m of these rooms excavated. **XIX** and **XX** had planking on joists.
Ⓑ Site of Bonfire

Figure 5.2. The Period III *praetorium* (adapted from Birley 1994:57, *fig*. 22, 58-87).

The Period III *praetorium* is unusually large, of a size (50.65m north to south and *c*.31m east to west), unparalleled in Britain (Birley 2009:71). This could indicate that the building was shared by the commanders of two units (see above), or, I would argue, an unusually high status for Cerialis (for his aristocratic status within the Batavians see **3.3.5**). The *praetorium* could be subdivided into areas of different function and status, on the basis of the artefacts and documents found (Birley 1994). In the southern block, Rooms I, II, III and IV appear to have been the personal suite of the prefect; they had been stripped of the most small finds, perhaps because they were easiest to clean away here (Birley 2009:71). Room IV contained many writing tablet fragments connected to the prefect and as such may have housed his personal archive (2009:72). The proximity of the yard to the rooms of the prefect may indicate his ownership of animals kept there – including perhaps hunting dogs and poultry reserved for special occasions (Birley 2009:73; see **5.5.6**). The adjacent kitchen (Room VIII) was relatively clean, and will have been used to prepare meals for the prefect, his family and guests (2009:77; see **5.5.10**). Tablets with recipes (*Tab Vindol.* II 208) and inventories of

kitchen and household supplies (*Tab. Vindol.* II 194, 195, 196) confirm this use for the room, besides providing an insight into the organisation of domestic life in the *praetorium.*
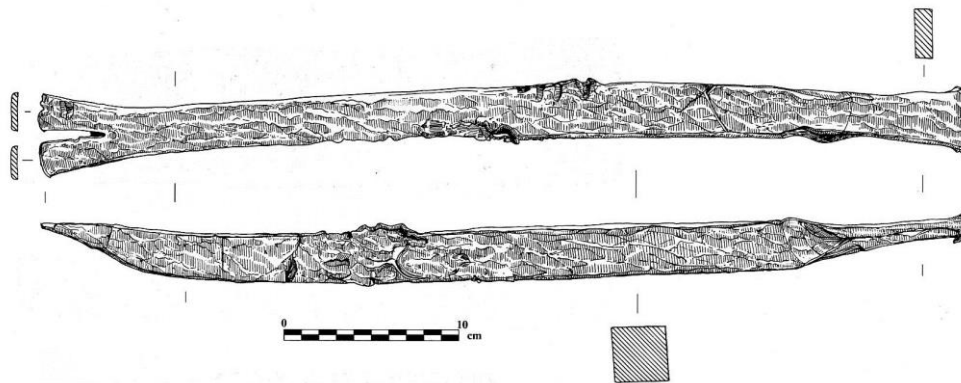
Figure 5.3. Wrecking bar from Vindolanda, Period III (after Blake 1999:54).

The separated northern block formed an apparent servants' quarter. These rooms were in filthy condition or poor in finds, leading to this identification; the Period I ditch also caused heavy subsidence here (Birley 2009:79). Room X, close to the exit, was cluttered with debris associated with the demolition of the building, including over a hundred oak roofing shingles, leatherworking and textile fragments, and assorted iron and bronze items. This small room (14.4m^2) may represent a final sorting area for material collected from the rest of this block (2009:78). Finds from the connecting room XI were few, but two were notable – a complete child's sock, and a leather chamfron, comparable to that discovered at Newstead (2009:78-9; cf. Curle 1911:153-5, Driel-Murray 1989b). The three small rooms to the north (XV, XVI, XVII) were identified as working spaces, and were even poorer in artefacts; an iron wrecking bar was probably lost during the hasty demolition process (*fig.* 5.3, **III.2.36**; cf. **III.2.41**), as was a hair-comb still in its leather carrying case (2009:79). The final room (XVIII), accessed from the northern corridor/verandah (XXI), contained a quantity of metalworking debris, including scrap copper alloy, and industrial waste such as coal dust, charcoal and ash. There was also an eclectic mix of tools, including a leather punch, a branding iron, a nail making block, a rasp and a saw. This room was firmly identified as a smithy on the basis of these, perhaps operated by the prefect's personal craftsman (2009:79-80; **5.5.6**, **III.7.7**). Notably, the scrap metal included fragments of segmented armour, not typically associated with auxiliary contexts (Birley 1994:83; see below).

Although only partially excavated, the Period III *praetorium* reveals a complex occupation pattern, but also a uniquely clear indication of usage in the context of the writing tablets. The

demolition process disturbed much of the material in the northern block and moved material out of context, but the identification of the workshop, the kitchen, and the prefect's personal rooms is strong. The site highlights issues with interpretation of function based on plan and even small finds in isolation. It required textual evidence to confirm this building as a *praetorium*, rather than a workshop.

Following the departure of the Ninth Cohort, the fort was abandoned and fell into a state of disrepair. Between six months and a year later, the First Cohort of Tungrians returned and executed a hasty demolition of the remaining buildings, covering them with thick layers of turf and clay as a foundation layer for the rebuilt fort (1994:90-1, 111). The fort was expanded considerably in size, changing its shape, and as a result the area of the *praetorium* was replaced with a barrack block (1994:108, see *fig.* 5.3). The Tungrians garrisoned the fort until the end of period IV, at some point being joined by the First Cohort of Vardullians from Spain, although the circumstances are unclear (Birley 1994:111, 2009:92, 99).
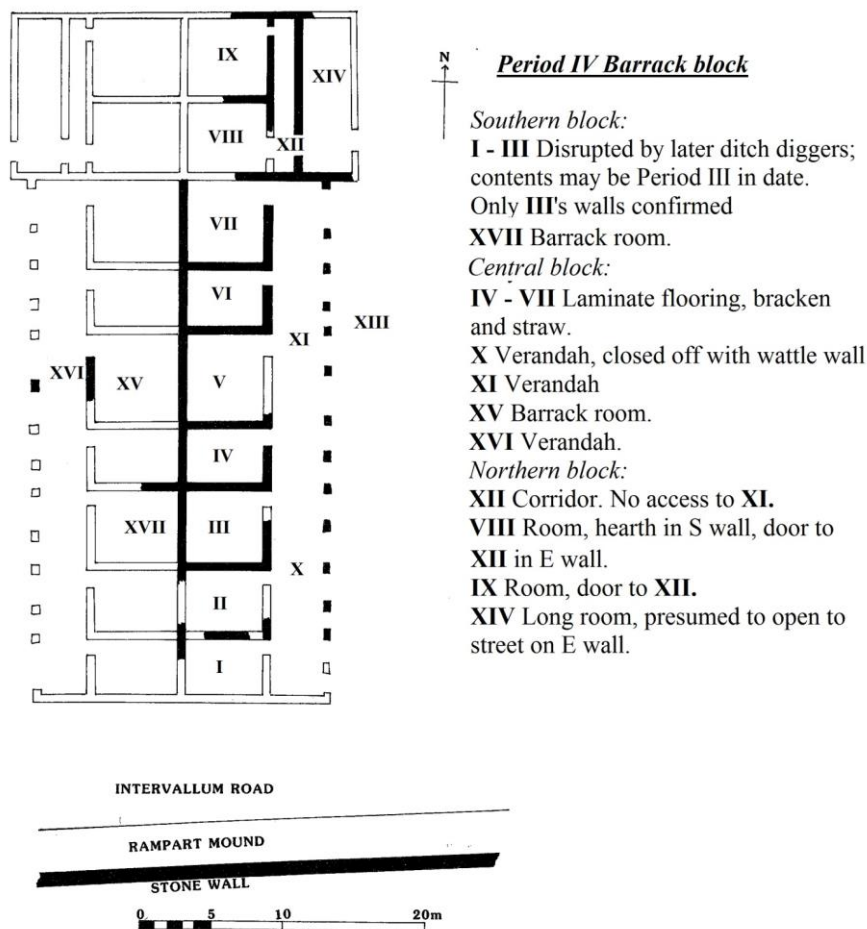
Figure 5.4. Reconstructed plan of Period IV barrack block (after Birley 1994:109, *fig.* 30, 95-108).

The Period IV barrack block housed lower ranking soldiers, in contrast to the elite *praetorium*. As it was not associated with a hurried exit, the finds represent a more normal deposition of artefacts (Birley 2009:94). The individual *contubernia* (here single rooms; I-VII, XV, XVII) and the private quarters of the centurion (VIII, IX, XII, XIV) are visible. Rooms III, IV, and XV contained a great quantity of leatherwork, including the shoes of children indicating, that these may have resided within the barracks (Birley 2009:94, cf. Driel-Murray 1993). The centurion's quarters produced a small hoard of writing tablets that represented the correspondence of these lower-ranking officers. These included **II.20**, which related to the acquisition of commodities such as barley, hides and grain, and **II.21**, the petition of the 'overseas man' referenced above (*homo transmarinum*; see **3.2.5**). **II.22**, recovered from Room II, prosaically related to the supply of spare clothing to a soldier, including socks and underpants.

The writing tablets from the barrack blocks provide details of the occupants. Many were written by slaves and provide evidence for their presence within the accommodation of the soldiers (e.g. **II.23**). Some suggest the aspirations of ordinary soldiers; a writing exercise may indicate a soldier improving their literacy, for instance (*Tab. Vindol.* II 452, Birley 2009:97; see chapter three). Others reveal the access soldiers had to trade networks (e.g. *Tab. Vindol* II. 186, 342).

Period IV also featured to the north of the barracks the most elaborately constructed building of the wooden forts, which may have housed senior officers – perhaps even the imperial retinue in A.D. 122 (Birley 2009:101). The building was oak built, which at this time would have been brought over long distances (Birley 1994:130). A further building, excavated over 2001-2002, was interpreted as a *schola*, a mess club for junior officers (Birley 2003b:37). The rooms within this building included offices (2003b:45; one containing the account of Tagomas, *Tab. Vindol.* IV 861 = **II.37**) and kitchen areas (2003b:41).

Around A.D. 120, possibly in association with the visit of Hadrian to the northern frontier, the garrison and fort plan changed again (Period V). The Tungrians remained in garrison, and were joined by a legionary vexillation (Birley 2009:107). On the site of the former *praetorium,* a substantial workshop was constructed (see *fig.* 5.4), containing a forge in one room and coal dust and iron slag in three others (Birley 2009:107). This building was demolished during initial construction of the first Stone Fort, and the anaerobic conditions of the earlier contexts were not replicated (2009:107, 111). As such, writing tablets and other

small finds are few from this period. Only one writing tablet has been found at the site dating from after Period V, and so the later contexts are less useful to this thesis (**II.36**; Birley 1994:12, Birley 2002:158, Birley 2009:107, 111).

Period V **Fabrica**

1-5 Much disturbed by ditch-diggers. Divided by wattle partitions.

6 Disturbed by ditch digging.

7 No partitions. Considerable amount of iron slag and coal dust. Stone flag and laminate flooring.

8 Waste pit and bonfire.

9 Furnace room.

10 Metalworking site, bronze and iron scrap.

11 Destroyed by ditch digging.

12-16 Not part of workshop building.

INTERVALLUM ROAD

TURF RAMPART

STONE WALL

0   .   5   10   20m

Figure 5.5. Period V workshop (after Birley 1994:114, *fig*.31; Birley 2009:107-110).

The Vindolanda tablets form part of a cohesive archaeological assemblage that illustrates the function of rooms and the roles of occupants, and so have an importance beyond their historical record. They serve both as evidence of different literate activities, and as small finds in their own right. These were a product of the northwestern Empire, produced from locally-grown timber, and used in place of the papyrus or inscribed fragments of pottery (*ostraca*) used for messages in Roman Egypt and the Eastern Empire (cf. Maxfield 2003; in the northern provinces pottery including amphorae and plates was marked with graffiti or painted inscriptions (*dipinti*) identifying contents, dates of manufacture, or ownership,

providing an additional insight into international market networks; Pearce 2007, cf. *RIB* II.4.2492-3). Enough has survived of the original messages to elucidate many aspects of military life revolving around the use or display of material culture at Vindolanda, from social gatherings to trade relationships. As such, these provide an invaluable indication of practices pertaining to material culture within this fort community, especially in relation to archaeologically emphemeral items such as clothing and foodstuffs (**5.4.5**, **5.5.-**).

Over the rest of this chapter, I extend my analysis of material culture to the broader context of the northern frontier and relate small finds to practices relating to the display of identity within the institutional context of the Roman military. Although no site offers material as contextually situated as Vindolanda, the details within the tablets regarding everyday life provide an insight that may be applied to other sites in the region. With that said, I shall also be identifying arenas of practice in which variation in practice may be observed. In the next section, I shall discuss militaria and its role in communicating martial identity within the fort community.

5.3.1. *Part 1: Militaria.*

The Roman soldier was clearly identifiable by his arms and armour. These enabled him to carry out his military duties, whilst demonstrating his status to peers and civilians alike. In this section the role of militaria – material culture used by individuals in their capacity as soldiers – in defining military identity is addressed. This is a field of study that has primarily been led by Classicists and art historians, but recently has gained critical attention from archaeologists specialising in material culture (cf. James 2004:243). Over this section, I analyse the characteristics associated with militaria and the presand relate these to archaeological evidence from the northern frontier zone (for detailed descriptions the key reference text is Bishop and Coulston 2006). I identify the methods by which the *auxilia* utilised militaria to perform and identify as soldiers, and also highlight ways in which individual identities could be expressed even through the use of otherwise uniform categories of equipment and dress. I also investigate the intended audience for displays of militaria, in particular during events such as the *Hippika Gymnasia* (**5.3.5**), but also during everyday activities. Through examining these interactions, I highlight both the institutional necessity of militaria in battle and its social role within the context of the fort community. First, I examine the development of Roman military equipment studies from a focus on art history to practical experimentation, in order to contextualise the analysis in this section within this active and developing field of research. This approach also allows us to appreciate the distinction between idealised art and the practical reality of these symbolic markers of identity.

The study and reconstruction of Roman militaria originated in medieval Europe with the revival of interest in ancient Roman military practices (Springer 2010:25-6). These were rooted in art history studies and based primarily on monumental representations (cf. Coulston 2002, Feugére 2002:19-24; Chicorius 1896). Works of public propaganda such as Trajan's column (erected in AD113, and bearing a spiral relief portraying the troops of Trajan during the Dacian wars of AD101-2 and 105-6) provided naturalistic depictions of Roman soldiers in a variety of roles, but were also simplifications of a complex reality, relying on artistic conventions to quickly distinguish between legionaries, auxiliaries and barbarians (Coulston 2002:36). These conventions – legionaries dressed only in segmented armour, auxiliaries in ring mail or scale – have in the past been accepted by military scholars as accurate

representations of strict divisions in dress between citizen and non-citizen troops (Bishop and Coulston 2006:4, cf. Speidel 2004).

The distinction in dress has latterly been interpreted as an artistic convention, establishing symbolic stereotypes that distinguished citizens from non-citizens for the benefit of the audience in Rome (2002:32, cf. Maxfield 1986:68). It was important for the latter to see that battles could be won through the effective leadership of auxiliaries, without the loss of citizen lives (cf. Tacitus *Agricola* 35; Speidel 2004). This portrayal of a general uniform has been increasingly critiqued (e.g. Maxfield 1986:68), but it does indicate that differences in armour and weaponry were considered a means of distinguishing between citizen legionaries and non-citizen auxiliaries during the Principate. It also indicated to an audience which of Rome's soldiers could be allowed to fall in battle.

This level of figurative detail was not matched on the column of Marcus Aurelius in Rome (*c*.A.D. 176 - 193), which portrayed the events of the first Marcomannic war (Bishop and Coulston 2006:5-6) or on the *Tropaeum Traiani* at Adamklissi in Romania, a rotunda built c.A.D. 108/9 with a metope frieze. The reliefs on the latter were carved by craftsmen who apparently had first-hand experience of Roman military equipment, and so are closer to archaeologically recovered armour (2006:5, Maxfield 1986). It did not however have the same prominent location as the two columns and was less influential to later scholars – perhaps due to the perceived inferiority of the artwork (cf. Henig 1999:160-1). We have seen this criticism applied to the artwork of the northern frontier (**3.2.4**), and I would make the same point again that this proximity to the soldiers means it is both a more useful source and a more accurate reflection of the characteristics of militaria that soldiers at that site sought to convey. Propaganda reflected a metropolitan ideal; for the community of the soldiers, the lived reality of wearing and using militaria was more relevant to them.

The study of Roman military equipment moved away from an adherence to representational sources towards this more practical understanding with the publication of *Armour of Imperial Rome* in 1975, in which Robinson catalogued Roman armour, and established a method of testing their usage and material properties. As curator of the Royal Armouries, he brought practical experience to bear on Roman armour, and incorporated reconstructions into his study. The discovery in 1964 in the Roman town of *Coria* (now Corbridge, 12 miles from Vindolanda) of a hoard of scrap metal, including large pieces of segmented armour, provided him with the opportunity to apply these skills to armour recovered from the northern frontier

(Allason-Jones and Bishop 1988, Bishop and Dore 1989, Hodgson 2008; *fig.* 5.6). Reproducing the segmented cuirass based on the examples found within the hoard revealed substantial inaccuracies in its depiction on Trajan's Column (Robinson 1975:174, 177, Daniels 1988; cf. Groller 1901, Curle 1911:156). This approach demonstrated the dangers of literal interpretation of the representations on that monument and emphasised the importance of understanding the processes involved both in construction and in wearing armour.
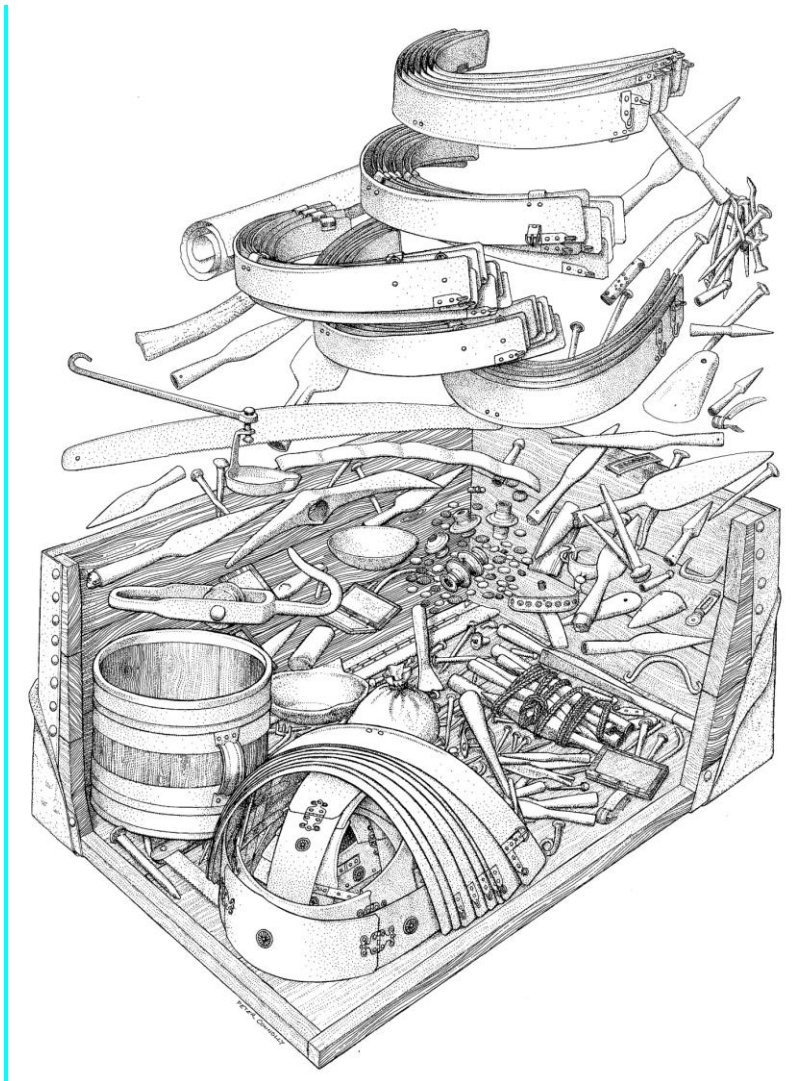
Figure 5.6. Exploded reconstruction of the Corbridge hoard, illustrated by Peter Connolly (after Allason-Jones and Bishop 1988:8, *fig.* 8).

Robinson's reconstructions were enthusiastically received by museums (Daniels 1988), and his practical approach was followed by subsequent generations of experimental archaeologists who applied technical knowledge and experience to Roman material culture (e.g. Dawson 1987, Junkelmann 1986, 1990, 1991, 1997; Sim 1992, 1994, 1998, 1999, 2012,

Koepfer *et al* 2011, Travis and Travis 2011; Sim and Kaminsky 2012). Re-enactment groups including the Ermine Street Guard and the *Cohors V Gallorum* (Haines and Sumner 2000, Croom 2000) popularise Roman material culture while demonstrating the physical demands and limitations imposed on the individual by different materials and armour forms. These reconstructions have also allowed a study of the wear on artefacts over time, even to reconstruct battle damage (Croom 2000, Haines and Sumner 2000, Koepfer *et al* 2011, Travis and Travis 2011). Such experimental reconstructions are necessarily hindered by the loss of ancient skills and materials, with the use of modern materials such as mild steel a necessary compromise (Atkinson and Morgon 1987:99). Reconstructed armour is often thicker, heavier, and less precisely shaped to the individual than the Roman originals; reconstructions are highly variable in each of these factors (Fuentes 1991:89; cf. Travis and Travis 2011:49). A further limitation is the (obvious) inability to test them in battle conditions (2011:129); the cost of reconstruction after destruction testing is a disincentive, although such research is being carried out by Sim (*pers. comm.*). Nonetheless, the results of practical experimentation are useful in reassessing the physical characteristics of militaria assemblages and consequently their impact upon the wearer's sense of being.

5.3.2. *Arms and armour.*

> 'For shield, sword, helmet are reckoned a burden by our soldiers as little as their shoulders, arms and hands; for weapons they say are the soldier's limbs, and these they carry handy so that, should the need arise, they fling aside their burdens and have their weapons as free for use as their limbs.'

> (Cicero, *Tusculan Disputations* 2.37; cited in Phang 2008:105)

The panoply of the Roman soldier was innately bound into his expected behaviour. The effort of carrying armour, of enduring heavy loads over extended periods, of training with equipment and using weapons with skill in battle was bound into a performance of a military identity that emphasised the strength and Stoic endurance (core masculine traits) of the individual soldier (cf. Lendon 1999:310). The relationship between the individual and his military equipment was such that a soldier could not possess that identity without it (Phang 2008:105-6). As outlined above, understanding the physical and mental processes involved in the wearing and use of arms and armour is a crucial step towards understanding the construction and maintenance of a military identity in the context of the Roman *auxilia*.

Armour establishes and emphasises the masculinity of the wearer through privilege of access and aesthetic form (Springer 2010:13). In the period covered in this thesis, armour came in four principle forms, which were scale armour (*lorica squamata*), ring mail armour (*lorica hamata*), segmented armour, and the muscle cuirass (*lorica musculata*; Sim and Kaminsky 2012:95). Despite the variation in armour forms utilised in the Roman military, all concealed and transformed the body of the wearer, through the thick layers of the *thoracomachus* and the metal rings, scales, or plates of the armour itself (Bishop 1985). The close-fitting representations of armour on Trajan's Column show artistic licence, but the visible musculature of the auxiliary soldiers may represent their enhanced bulk in armour compared to plain tunics. The *lorica musculata* worn by the Emperor on Trajan's Column, or by the Augustus of Prima Porta, featured stylised, exaggerated muscle groups that emphasised the 'manliness' – the physical *virtus* – of the commander and validated his position of command, whilst pre-empting any concern over penetrating wounds, physical or moral (Phang 2008:100-1, Springer 2010:25-6). Segmented armour similarly emphasised the torso and shoulders, mimicking the symmetry of the human body. Ring and scale armour, the armour worn by the majority of auxiliary soldiers, brought much less definition to the body beneath them. Aside from questions of effectiveness in battle, the distinction between the thorax-type armours and those of the common soldiers thus lay in how they presented the male body. At collective homosocial gatherings (parades, marches, battle) the divisions in status between different classes of soldiers would be readily apparent by means of dress, and the comparative expression of the hypermasculine ideal (Springer 2010:36, cf. Morgan 1994, Cohen 1996, Phang 2008:100-1).

The true test of armour was in battle. No armour could completely protect against the blunt force trauma resulting from powerful attacks to any part of the body, which could cause significant internal damage (Sim and Kaminsky 2012:95; *contra* Gabriel and Metz 1992:6-7). That close combat remained a fact of life for soldiers on the northern frontier even after the construction of Hadrian's Wall may be indicated by the presence at Carlisle of a group of iron *manicae* (arm guards of overlapping plates connected by rivets and leather straps), found in a workshop room in the *praetorium* of the second timber fort at the site, dated to the period *c.*AD 125-140 (Bishop and Howard-Davis 2009:687). The *manicae* (**III.1.434**, *fig.* 5.7) are roughly maintained pieces, exhibiting many signs of crude repair (Bishop 2011:694-700). These makeshift solutions indicate that access to resources such as iron and skilled craftsmen at this site could not be taken for granted, but also that these bulky items of armour were

considered essential enough to be retained until they were beyond repair (see also **III.1.464, 466**). This emphasis on effectiveness over elegance, Bishop suggests, implies that conflict in the early- to mid-second century in this region was a constant concern, although its nature is no longer clear (2011:703-4). The risk of wounds in these circumstances must also have factored into the psychological significance of armour to the soldier.
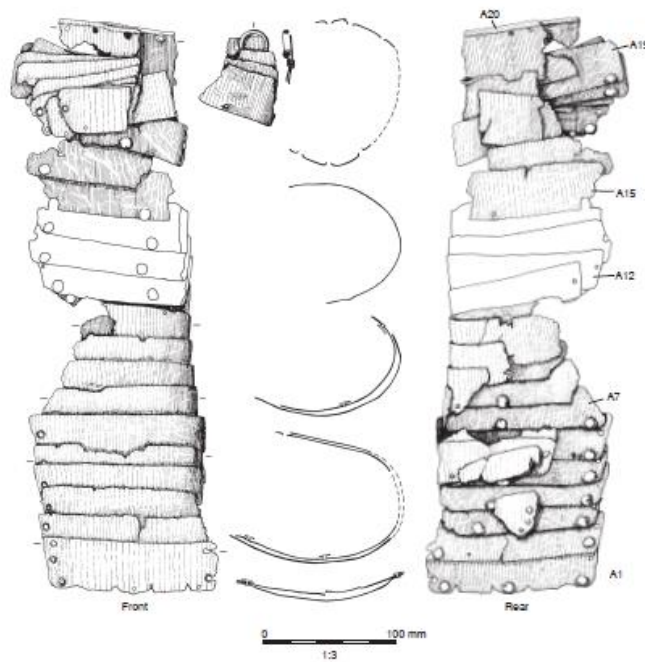
Figure 5.7. Armguard 2883a from Carlisle (after Bishop and Howard-Davis 2009:695, *fig*.344.

In battle, the soldier's limbs were uncovered (even if *manicae* and greaves were worn, these protected only the upper, forward side of the limb), whilst their helmet protected their eyes, nose and mouth only from slashing blows. Even in armour, the soldier remained exposed to severe injuries, such as the loss of an eye or penetrating wound to the limb (cf. James 2010, Novak 2013). Such injuries were survivable, where piercing wounds to the torso were not, but could leave the soldier crippled (for battlefield treatment see *fig*. 5.8). This pattern is also seen among contemporary Western soldiers, who with modern body armour and medical treatment can survive being struck in the torso, but be critically injured by wounds to the limbs and head (Taylor and Jeffery 2009, Belmont *et al* 2010).

Figure 5.8. An auxiliary receives first aid (Trajan's Column, *Chic.* Scene XL. Image: Scran 2005).

According to classical accounts, such grievous injuries could be common. The third century B.C. general Marcus Sergius suffered multiple injuries over the course of his campaigns against Hannibal leaving him with severe disabilities, including a prosthetic iron hand (Pliny *Natural History* 7.104-6). The centurion Caesius Scaeva, fighting for Caesar against Pompey at Dyrrhachium in 48 B.C., lost his eye to an arrow in the conflict as well as receiving wounds in the thigh and shoulder; his shield was pierced in over a hundred places (Suetonius *Julius Caesar* 68; Caesar *Civil War* 3.53; Roman archers were trained to aim for the eyes; cf. *AE* 1909, 198, Speidel 2006:52). These soldiers fought on despite their injuries, and for this they were praised by later Stoic writers as moral exemplars (e.g. Lucan *Pharsalia* 6.254; cf. Beagon 2002). The injuries of unnamed soldiers are likewise alluded to; at Dyrrhachium, Caesar reported wounds to all soldiers within the fort during the siege besides Scaeva, and in one cohort alone, four centurions lost their eyes (*Civil War* 3.53); earlier in Gaul, the survivors of one enemy attack had a ninety per cent injury rate (*Gallic War* 5.52).

That the example of the Stoic heroes was one Roman soldiers were expected to follow is made clear by Cicero, who compared the reaction to injury of the raw recruit to that of the seasoned veteran; the younger, stronger man moans in a disgraceful manner, whilst his older counterpart merely asks for a bandage to be applied (*Tusculan Disputations* 2.16; see *fig.* 5.8). Less severe injuries, such as bruising, sprains, and grazes would be common during battle, and the ability to recognise a non-serious wound would be gained by the soldier over time (Hanson 1989:216).

Although it is unlikely that many soldiers had the option available to Sergius of an iron prosthetic limb, the loss of some body parts could occur, such as single eyes or digits, without ending the soldier's military service. The availability to the Roman soldier of a superlative system of surgical care that specialised in the treatment of battle trauma would certainly have improved the odds of surviving such injuries (Gabriel and Metz 1992:169-176; Nutton 2004:182-6; cf. Baker 2002, Hanson 1989). Although caution should be taken before assuming that the high standard of medical care described by Celsus (*c.*25 B.C. – *c.*A.D. 50) and Galen (*c.*A.D. 129 – *c.*A.D. 200) was accessible across the Roman military (Scarborough 1968; cf. Nutton 1969), it was likely a common provision at forts on Britain's northern frontier (see **5.5.2**). For the soldier who had been injured in battle, his ability to personalise his equipment may have had further benefits. Armour could be repaired to mostly mimic its appearance prior to battle damage – as the scarred veteran would also hope to be. The worn and battered *manicae* found at Carlisle, repaired clumsily and frequently during their occupational usage, suggest that the marks of battle could be seen on armour as well as on the individual.

This study of the literature has highlighted the ideological implications of militaria for soldiers, along with the embodied martial values they were meant to uphold. For the soldier, armour transformed his figure into a masculine ideal, yet it also exposed him to physical danger when called upon to use it. This could lead to further physical transformations, as the soldier acquired injuries and his armour took damage and required repairs. These wounds, if they did not lead to his being invalided out of the military, could remain marked on the body of the soldier as indicative of his fighting prowess. His equipment, meanwhile, had a biology of its own. In the next section, I analyse the character of militaria on the northern frontier, and its role in the establishment of differing forms of martial identity.

5.3.3. *Martial identities in the northern frontier zone of Roman Britain.*

Between the late first century and the end of the second century there were a number of significant changes in the style of weapons, armour and dress of the soldiers, especially during the 'Antonine revolution' of A.D. 130-160 (Bishop and Coulston 2006:129-148, James 2004:245). This period saw the adoption by the legions of auxiliary styles of weaponry (the long *spatha* and the short, thrusting spear), of personal appearance (with beards replacing a clean shaven appearance) and of clothing, in the form of long-sleeved tunics and breeches which had previously been associated with barbarian identity (2004:245,

247, Wild 2002:23). These changes reflected the changing character of the Roman military in the northern Empire, as it drew increasingly on provincial sources of recruitment.

The legionaries were most affected by these changes, but the distinctions between the two core groups of the Roman military must have diminished accordingly. Militaria across the Empire were remarkably homogeneous, with innovations spreading rapidly between different frontier regions. Without a centralised system of distribution, how was such conformity achieved? James has argued convincingly that this drive for uniformity of equipment and dress was driven by the soldiers themselves; embracing the look and style of a Roman soldier was to be part of this larger identity group (2004:254-5). This included the distinctive 'camp dress' of the Principate Roman soldier; the metal-plated leather belt and sword, hobnailed boots, short tunic and military cloak (James 1999:19, 2004:58-62, Hoss 2012, Speidel 2012:8-9).

The *balteus* was the military belt, worn over armour to help support the weight and holding the sword, the dagger, or both together. Simply bearing these indicated the status of the wearer as a soldier, but clearly more embellishment was demanded (James 2004:58). At the beginning of the first century two belts were worn in a crossed fashion, but by the close the fashion had changed to just one (Bishop and Coulston 2006:106). The belt was typically decorated with silver plates (narrow when two belts were worn, broad when just one); these were a mix of plain plates, a buckle plate, and plates with sword or dagger frogs (2006:106). It is not clear if the entire belt was covered with plates, or only the front, visible sections. Plates could be tinned or silvered, or decorated with niello inlay (2006:107; Wallsend: **III.1.273-4**, Birdoswald: **III.287-8**, Carlisle: **III.1.305, 407, 421**). During the second century belt fittings became more elaborate, incorporating openwork decoration in a Celtic decorative style – such plates have been found at Newstead and on the turrets of Hadrian's Wall (2006:144).

Roman auxiliary soldiers in the frontier zone of northern Britain utilised a wide range of footwear, ranging from boots, shoes and sandals to slippers and overshoes, all of which are well represented in the archaeological record of northern Britain (Driel-Murray 1993, 2002:114). The functional military footwear of the late first century and second century AD was typically a hobnailed boot made from three pieces of vegetable-tanned ox or cow leather: sole, upper, and insole (Bishop and Coulston 2006:112-113, Driel-Murray 2002). Unlike the *caligae*, the distinctive military sandal of the early Empire, these boots were worn by civilian

and soldier alike, and could be made in a wide variety of forms that reflected, in their consistency between provinces, contemporary developments in fashion (Driel-Murray 2002:114, 116). These ranged from simple closed boots to shoes with elaborate openwork (2002:118, *fig.* 8). The openwork of the uppers and the spacing of the hobnails of Roman boots (anticipating twentieth century sole design) made for an extremely functional piece of footwear, which could be adjusted to fit the individual wearer (Bishop and Coulston 2006:112-113). Also unlike the *caligae* these could also be worn with socks; shoes with openwork uppers highlighted coloured textiles for an impressive effect, whilst the closed boots may have been uncomfortable without such a measure (2002:114). Both fully closed and openwork boots would be more practical for the cold, wet northern climate than the earlier *caligae* (Driel-Murray 1993:32).

The variety in shoe types available reflected a range of activities and social settings. Wooden sandals and overshoes could be used in the bath house to protect the feet from the heat of the hypocaust or to provide more robust footwear for muddy conditions (Driel-Murray 1993:33). At Vindolanda the finer examples of openwork shoes were found in the context of the *praetorium*, perhaps indicating their role in displaying high status; the low level of wear on individual thongs within the openwork certainly suggests a high standard of design (1993:32-4). Distinguishing between male and female shoes is problematic due to some crossover in foot shape and sizes (1993:42-3), but it appears that openwork shoes such as the Balmoral type were worn solely by men; the wearing of long skirts by women would make elaborate shoes less visible in any case (1993:33, 36).

Military tunics were simple garments but served to distinguish the soldier even out of his armour, being shorter than the civilian equivalent at just above knee length (Bishop and Coulston 2006:110, Wild 2002:23). In the early Principate, following cavalrymen, leggings also became popular among infantrymen (Bishop and Coulston 2006:111). Military tunics were also sleeved in the northern provinces (Wild 2002:23). These practical adjustments to camp dress did not detract from the concept of a shared form of dress, especially when adopted across the military community.

Fuentes has reconstructed the tunic of the legionary based on the representations on Trajan's Column (1987). It was a loose-fitting sleeveless garment of wool that could be worn open, exposing the right shoulder (whilst carrying out heavy labour, for instance), or worn closed, secured with a fibula or thong (1987:41, 49). The evidence for auxiliary dress is less

consistent and it may be the case that ethnic styles continued to be worn by these units, retained from civilian life (1987:63). The colour of Roman clothing has been subject to a great deal of discussion over the years; although typically viewed as red in colour the evidence is greatly varied: red was a relatively cheap dye and was also the colour of the favoured military god Mars, but other shades were possible, and undyed wool can be anything from cream to brown (the evidence is discussed by Sumner; 2002:18-36 and 2003:39-43).

During the Principate two types of cloak were worn, the *sagum* and the *paenula*. The former was a cloak fastened at the right shoulder, whilst the *paenula* was a larger oval or circular garment worn over the head and split down the front (Bishop and Coulston 2006:111). By the second century, the *paenula* had fallen out of use leaving the *sagum* as the principle item of outer clothing for the soldier (2006:144). Cloaks in northwest Europe were likely left in an undyed state, so as to retain the natural waterproof oils of the wool, and therefore have been yellow or yellowish-orange in colour (Fuentes 1987:61). Wool if left untreated is waterproof thanks to natural oils, but can also act to wick away sweat from the skin; as a material it is considered preferable to synthetic fibres for soldier's dress even today for these reasons (Bennett 2012). The cloak served to keep the soldier warm, and would probably have served as a groundsheet or blanket at night (Sumner 2002:15).

That these were central to military identity can be seen in their depictions on military tombstones, as well as by the shame of having them removed as punishments for ill discipline or cowardice (Speidel 2012:9, cf. Suetonius *Augustus* 24.7; **2.2.3**). Although some details varied (such as the type of boot worn, or the configuration of the belt or weapons), this basic outfit was to be found across the military community, ensuring soldiers could be readily distinguished from non-combatants.

This surface uniformity of appearance concealed an underlying heterogeneity, and group identities at the army or regimental level, and also individual identities, could be asserted through the subtle differentiation of armour and weapon display (James 2004:254). As noted, armour and weapon finds in the north of Britain (as elsewhere in the Roman Empire) are rare, compared to the quantity originally in use. However, there is evidence to suggest that militaria, along with other forms of dress items such as shoes (cf. Driel-Murray 1995b), brooches (cf. Snape 1993, Jundhi and Hill 1998), and belt fittings, could be used to create personal statements of individuality, outside of the constraints of rank (cf. Allason-Jones

2009:430). As these items were paid for by the soldiers themselves, they can be seen as potent symbols of individual identity – of asserting personal ownership over militaria and thus a military identity within the community.

This could initially consist of inscribing items of military equipment such as helmets, saddle plates and harness fastenings with the soldier's name and unit, identifying the owner for the benefit of the *custos armorum* (Curle 1911:174, MacMullen 1960; e.g. *RIB* 2425.4, 2425.5, 2427.4-12, 2427.14, 2427.14-24). As objects passed between owners, new names were added (e.g. *RIB* 2425.3, 2425.6). Inscribing their name upon an inherited item of militaria would have firmly positioned the owner within a martial tradition. Shields too could carry the names of soldiers and their units, in a manner more visible to others (e.g. *RIB* 2426.1, 2426.2, 2426.4). Vegetius noted this as a means for soldiers to identify each other in battle (2.18; cf. Cassius Dio 67.10.1), but this function would also apply in peacetime contexts.

Soldiers may also have used distinctive forms of armour, weaponry and dress to demonstrate an individualistic identity, whilst conforming to a general standard observed by the community as a whole. This can be seen in items such as decorated *pugio* sheaths, which utilised complex artistic styles to create a highly distinctive accessory (*fig.* 5.9; cf. Bishop and Coulston 2006:84). Along with the decorated belt plates, these were in a position that meant they could be easily touched by the soldier, something which recalls the apotropoeic qualities of Celtic art (*pers. comm.* Melanie Giles). If so, this could mark a line of continuity to the emergence of scabbard slides on sword sheaths in the mid-second century. The use of dolphin imagery on many scabbard slides may have referenced the Roman belief that these animals acted as psychopomps; close to the wearer's hand, these were a tactile representation of the soldier's proximity to death (Dixon 1990:17). These elements of dress may therefore have had a deeply personal ritual significance as well as a decorative, distinguishing role.

Armour too could be made distinctive through the use of patterning, which can be seen in armour fragments from Carlisle. A fragment of scale mail (Period 4C) featured a column of copper alloy scales amongst ferrous plates (see *fig.* 5.11), to create a visually striking effect with differently coloured metals (Howard-Davis 2009:689). Another scale armour patch from the same building (*fig.* 5.11.1) achieved a similar effect, but using copper alloy sheathing over an iron scale, rather than a wholly copper alloy scale (2009:689). A final example comes from a later (Period 5C) external context, and shows a selective use of copper alloy scales to provide a visually striking effect (rows alternating between wholly ferrous, and

a recurring sequence of three iron scales and one copper alloy scale; see *fig.* 5.11.2, 2009:691). Such patterns are rarely identified when typical finds are of isolated scales (cf. Bishop and Coulston 2006:97, *fig.* 54.2; for scale armour: **III.1.140-1**, **275-7**, **315-8**, **412-6**, **436-442**). However, they indicate how armour styles could be made highly distinguishable, defying modern ideals of uniformity of appearance, imposed upon Roman soldiers.
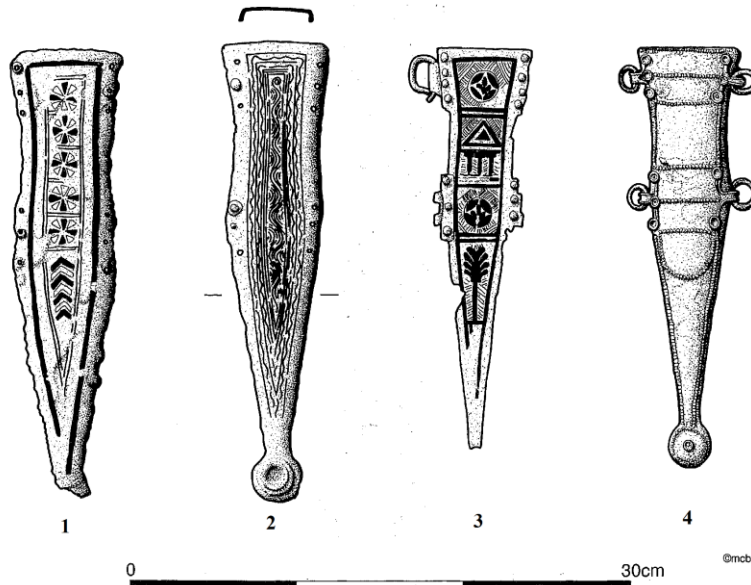
Figure 5.9. Ornately decorated Early Principate *pugio* sheaths. 1. Hod Hill. 2. Risstissen. 3. Vindonissa. 4. Leeuwen (adapted from Bishop and Coulston 2006:86, *fig.* 54).

Ring mail did not offer so many opportunities for embellishment, but could still be made more noticeable through the use of decorative fittings, as could the military belt and apron (2006:96, *fig.* 51, 108-9, *fig.* 62-3; cf. Howard-Davis 2009:707, *fig.* 357). It is worth noting that the standardised methods of production for segmented armour (Bishop 2002b) meant this armour form was the least amenable to ornamentation. In this sense it may have had more appeal within a military context that valued austerity over shows of wealth, such as the legions, and less outside of that.
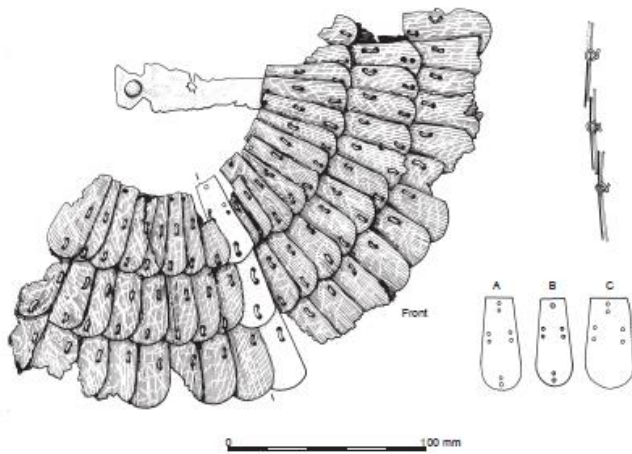
Figure 5.10. Scale mail fragment from Carlisle, Period 4C (adapted from Howard-Davis 2009:690, *fig.* 336).
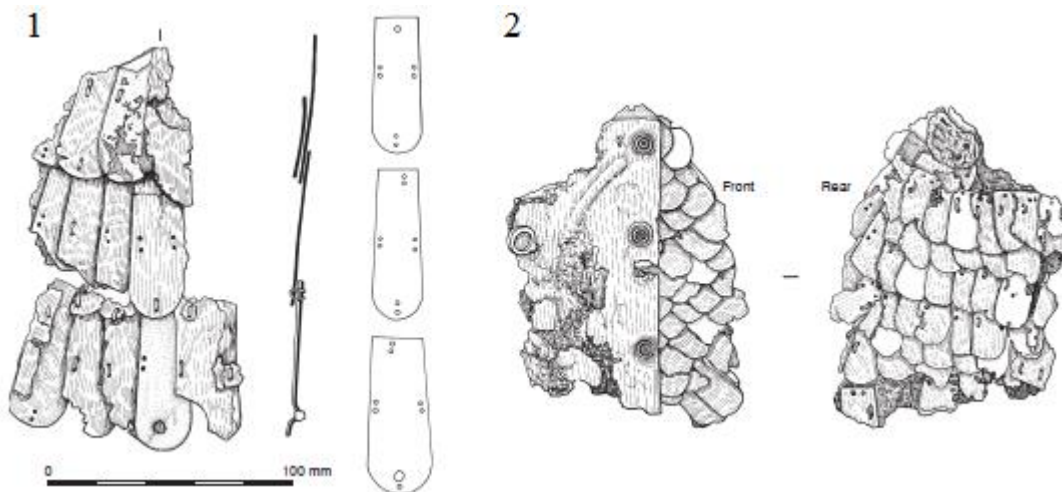
Figure 5.11. Scale armour fragments from Carlisle (Period 4C (1), 5C (2); adapted from Howard-Davis 2009:691, *fig.* 337, 338).

Armour, whether personally decorated or a functional hand-me-down, would not have been worn continuously by soldiers, and its dramatic effect was restricted to public contexts such as battle, and social events within the fort as highlighted in subsequent sections. When not worn it would still require special treatment, including regular cleaning to maintain an appropriate shine and prevent the accumulation of rust. It is not clear whether soldiers necessarily did this themselves as part of an appropriate *habitus* or if this duty was passed on to *calones* whenever possible (Davies 1989:48, Phang 2005:211; cf. Vegetius 2.14). In either case, a soldier was still judged by the condition and appearance of his armour (see **2.2.4**).

5.3.4. *Militaria and group identities within the fort.*

As discussed in earlier chapters, the collective identity of the soldiers within a military context was expressed through shared attributes and behaviours. Within this enclosed system of living and a cultural tradition that emphasised martial values, soldiers were also connected through their use of material culture. Communal identity was also affirmed by collective activities which were focused on certain areas in the fort – in particular the *principia*, and where the garrison was fully or part mounted unit, the parade ground as well. The heart of the *principia* was the *aedes*, the 'chapel of the standards'. These were the physical symbols of the unit and of the unit's place within the Roman military, which consecrated the *aedes* as sacred ground (e.g. Tacitus *Annals* 1.39). As such, it was an important point of reference for a communal sense of identity within the fort community. The central position of the *principia* reflected Roman ideology regarding architecture within the fort itself (see above), but it was the standards that were central to the identity of the unit when it was on the move. As portable material culture, they are returned to here.

The standards were used on the battlefield to orientate troops, convey orders, and provide a rallying point (Dixon and Southern 1992:59). The principle standard of the legion was a long pole surmounted by an eagle (*aquila*) of gold, clutching a thunderbolt atop a square sectioned plinth (Bishop and Coulston 2006:5; cf. Pliny *Natural History* 10.5). The *aquila* remained the symbol of the legions into the imperial period, where it was frequently represented in monumental propaganda alongside animals of zodiacal significance to the founders of the legions (Bishop and Coulston 2006:5, Keppie 1984:139-40). Auxiliary units used *imagines* – busts or portraits of the emperor – as well as the *vexilla*, square flags suspended from crossbars which served as standards for cavalry units and detachments of infantry troops (vexillations; Bishop and Coulston 2006:113-4). Although these do not attract as much attention within literary sources as the legionary standards, they commanded similar respect within their units. These standards were focal points during festivals, parades and other ceremonies; they were symbolic representations of the military unit in totemic form (Goldsworthy 1996:255, Haynes 2013:218).

Another form of standard is associated with *beneficiarii*; soldiers seconded to a military commander or to the *consul* of a province (cf. Housesteads: *RIB* 1619; Vindolanda: *Tab. Vindol.* II 180, 344, III 642 = **II.30**, 643 = **II.31**). This was the *Beneficiarierlanzen*, or 'standard tip', a lance with an elaborate bulbous head with decorative perforations (Rankov

1999:31, Bishop and Coulston 2006:152-3). The ornamental embellishments made this functionally useless as a weapon. However, it identified the bearer as someone of important social standing whilst travelling, especially if they were associated with the governor of the province. The 'standard tips' found at Vindolanda demonstrate their presence at auxiliary sites in the north of Britain and may signify high status visitors to the fort (**III.1.83-**9; cf. Birley 1996).

Standards other than the 'standard tip' do not typically survive in the archaeological record, due to their material properties and intrinsic value (although a vexillation flag was recovered in Egypt; Rostovtzeff 1942). Discussions of these objects rarely address exactly why Roman standards were accorded such sacred importance; indeed, flags and standards have occupied a similarly high status within military communities to the modern day, long after they became an impractical irrelevance on the battlefield. It was through gatherings such as parades and festivals that the standards attained and sustained their significance. Durkheim argued that the gathering of a large group of people in a single location could trigger a powerful response:

> 'The very fact of assembling is an exceptionally powerful stimulant. Once the individuals are assembled, the proximity generates a kind of electricity that quickly transports them to an extraordinary degree of exaltation.'

(1912[2001]:162).

This electricity was termed 'collective effervescence' by Durkheim. A powerful emotional force, it required grounding in a physical object, or totem, to become understandable. Durkheim sought a psychological explanation for the power of religious belief, but the totem could be any physical object which was regularly assigned significance within ritual events. The standards served as totems in the context of the social life of the fort community, as physical symbols of a collective military identity which bound the constituent members of the fort community (cf. King 2006:500). Durkheim's arguments highlight the ideological role of these symbols of shared identity, and the importance of their use within military gatherings, such as festivals and other ceremonial occasions (Haynes 1999:168-9). It was within such contexts that the military subunits – the primary groups of the *contubernia* and the centuries – were emphasised as a significant form of identity within the fort community (Goldsworthy 1999:204).

5.3.5. *The* Hippika Gymnasia.

For auxiliary cavalrymen, an opportunity to demonstrate collective identity lay in the *hippika gymnasia*, the quasi-theatrical tournament through which they could demonstrate their martial skills. These events took place on the parade ground (see chapter two) and involved forms of armour, weapons and dress defined by archaeologists as 'sports equipment' – highly decorative and complex items, which are regarded as impractical for use in battle (Dixon and Southern 1992:126). The key source is Flavius Arrianus (Arrian), a beneficiary of Hadrian who wrote a treatise on military tactics *c.*A.D. 136/7. This included a description of the parade manoeuvres of contemporary Roman cavalry (*Ars Tactica* 32-44; cf. DeVoto 1993, Dixon and Southern 1992:126-134).

The cavalry of the Roman military consisted principally of auxiliary regiments, especially those recruited from the western provinces of Spain and Gaul. Arrian records the preservation of the Celtic and Iberian languages in the names of cavalry formations, where Latin did not have an equivalent – he compared these loan words to Rome's willingness to incorporate elements of foreign dress and religion and make them its own (*Ars Tactica* 33, 44). As Haynes has argued, this passage is significant for what it reveals about the relationship between Roman imperialism and the material culture and traditions of societies it encountered, invaded, and incorporated. Utilising Lévi-Strauss' *bricolage* metaphor (1966:16-36), Haynes identifies in the *Gymnasia Hippika* the processes of incorporation and dissemination of material culture of non-Roman origin, as also practiced within the military at large (2013:239-41). This event, as will be demonstrated, was one through which a diverse range of symbolic identifiers were displayed and referenced, through dress and behaviour that combined theatricality with militarism. Individual identities were transformed and collective identities emphasised, before the entire fort community. Arrian does not detail the audience for these events, but it can be assumed that such performances would have social and professional significance for whole communities.

An exotic element was maintained throughout the mock battles of the tournament, with participants adopting a distinctive style of dress that obscured their individual identities. Elaborate masked helms were used, with small eyeholes restricting vision. These were made of gilded iron or bronze, and decorated with yellow plumes that caught the breeze (*Ars Tactica* 34, Dixon and Southern 1992:128). The cavalrymen wore brightly coloured tunics and trousers; to avoid causing actual harm to each other and to their horses, untipped spears

and lightweight shields were used (34). A distinctive standard, a serpent of patchwork dyed cloth that filled with air and trailed behind the rider in motion, was also used; this was based on the Scythian *draco* standard (35; Dixon and Southern 1992: 131). The manoeuvres carried out by riders included throwing untipped javelins at each other from multiple angles whilst protecting themselves with their shield (37, 39). In the second stage of events, the riders lined up on opposing sides of the *rostra*, and wheeled past each other in the Cantabrian circle (so named for its Iberian origin), in which the first of the line threw his javelin at the shield of the first, the second at the shield of the second and so on, in a continuous flurry of activity (*Ars Tactica* 40). This was followed by a display in battle equipment (iron armour and spears) and the launching of lances, from horseback, at targets (41. This was plausibly the function of the blunt 'standard tip' spear heads at Vindolanda; Birley 1996:10, cf. Manning 1985a). These manoeuvres echoed those of the Troy Game, a pageant participated in annually by patrician Romans following its revival under Julius Caesar and Augustus, and described in the *Aeneid* (5.545-603; Haynes 2013:239). This, combined with the masked helms that often referenced Roman mythological characters (Bishop and Coulston 2006:104), reminds us that this was a performance intelligible to Romans, despite its appropriation of external traditions (Haynes 2013:241).

These displays were intended to demonstrate the skills of the best horsemen, but the following event involved the entire unit. Arranged in order of *contubernia*, each rider was called out by name, then required to throw missiles at targets from horseback (42). This enabled the appreciation of individual skill; Arrian also refers to praising the *contubernia* which had provided the most skilled pike-men (42). This was followed by a show of martial skills ranging from target shooting with slings and artillery, to the use of swords and shields in close combat against an imagined foe, to displays of athleticism such as mounting a running horse (43). These events thus challenged every physical attribute of the soldiers; their strength, their skill with arms, and their ability to perform in unison. That these events were competitive must have led to the establishment of unofficial hierarchies within units based upon mastery of these skills (see **5.3.6**).

The account of Arrian is supported by an inscription at Lambaesis in Numidia (*ClL* VIII, 2532 = 18042; *ILS* 2487, 9133-5; cf. Speidel 2006), which records speeches delivered by Hadrian in A.D.128. In these *adlocutiones*¸ Hadrian reviews the performance of cavalry troops attached to the African army in the performance of a series of drills resembling those

described by Arrian (Davies 1968:86-88). Hadrian offers a critical judgement of the performance of the troops, providing rewards to those who had impressed, and constructive criticism where performances fell short of expectations (*CIL* VII 18042, *ILS* 2487; Speidel 2006:3). As well as providing Hadrian with an opportunity to demonstrate his knowledge of military theory and practice (thus forefronting his own soldierly identity) this speech also provides evidence for the practise of this display by units from across the Empire; the named units originated in Hungary (*ala I Pannonia*), Spain (*Cohors II Hispanorum equitata*), Cappadocia (*equites cohortis VI Commagenorum*) and Africa (*legio III Augusta*). Although these may not have consisted of regional recruits, it nonetheless indicates that the event described by Arrian and judged by Hadrian could be found across the Empire.

The evidence for parade grounds in Britain was assessed by R.W. Davies, who argued that forts built near native hillforts would have made use of these for that purpose (Chesters, Newstead and Wallsend had access to a range of terrain types for the purposes of training, whilst the camp at Hod Hill was located within the walls of a hill fort which would also have been ideal; 1968:91). Military training in general was not restricted to these areas; long marches and swimming were also important (cf. Vegetius 1.10, 1.19) and for obvious reasons these took place in areas that were not architecturally defined (Davies 1968:84-5).

Archaeological evidence of these events in the western provinces can be deduced from the presence of three key forms of evidence, alluded to by Arrian; sports cavalry helms, leather horse armour, and the presence of parade grounds outside cavalry forts (Dixon and Southern 1992:128-30). The first two are as affected as other items of militaria by the vicissitudes of environmental and depositional bias, but numerous examples exist that support the use of such items within Britain. Cavalry helms in particular attract a great deal of public attention (e.g. the Ribchester, Hallaton and Crosby Garrett helms; cf. Russell Robinson 1975, Score 2006, Breeze and Bishop 2013; *fig.* 5.12). As noted above, these items were ostentatious and extravagant, theatrical declarations of identity, transforming the cavalryman into an almost mythological figure. Although they concealed the face, I believe they could not be considered truly anonymising; each helmet was distinctive from its peers, and would have been uncomfortable at least for anyone not the original owner to wear. As such they remained powerful individual statements of identity, even one so transformed (cf. Haynes 2013:240). The deposition of these items in relatively complete condition may reflect this personal significance. They were not cheap enough to be lost casually, nor was their material

value considered important enough for them to be recycled. Their deposition may be considered the result of some other process, under the nebulous heading of 'ritual', perhaps associated with the death or retirement of their original owner, and a taboo over reusing such a personalised item of equipment.

Figure 5.12. The Ribchester Helmet, discovered in 1796 (image copyright British Museum).

The leather facemask or chamfron of Roman cavalry mounts was also distinctive and highly decorated. Constructed of thick cow hide, backed with goatskin to protect the skin of the horse, these items were elaborately decorated with copper alloy studs and plaques. At Vindolanda, a number of chamfrons were found in the Period III *praetorium*. One well preserved example identified the owner, Veldedius, a groom of the governor in residence at the fort alongside the Batavians (Driel-Murray 1993:9-10). These items, designed to fit close to the facial features of the horse, were used to interpret the breed of horse used. As at Newstead, the chamfron was designed to fit a graceful breed of horse, likely with Arab blood. Such an exotic breed must have been fairly exclusive within the context of the cavalry, and therefore have belonged to high status individuals – the groom of the governor would certainly fit, given his association with the senior Roman official in Britain (1993:11; cf. Davies 1969:453, 456, Groot 2008:77-8). Unlike cavalry helms, it does not appear that these

items were deposited whole, but were stripped of much of the surface decoration; the chamfrons of Vindolanda were in incomplete condition, and even Velededius's chamfron was cut down for reprocessing. As such their disposal may be less governed by ritual than that of the helmets; significant as markers of ownership and of wealth, but indicative of reduced importance for the horse itself.

Cavalry equipment is also represented in the multitude of small harness fittings and junctions found at sites with cavalry garrisons (Nicolay 2007:52-9, Garrow and Gosden 2012:290; see *figs.* 5.13, 5.14, **III.1.247-5, 486-90**). These ornate items, which could be silvered or decorated with niello, indicated wealth, status, and ownership of a mount; they also made possible an individual statement of conformity or difference, though different configurations. I believe it is possible that a particular arrangement of harness fittings was distinctive to each cavalryman, and that this identifying marker could be easily transferred between horses once one reached the end of its working life. The same too could be argued of the chamfrons.
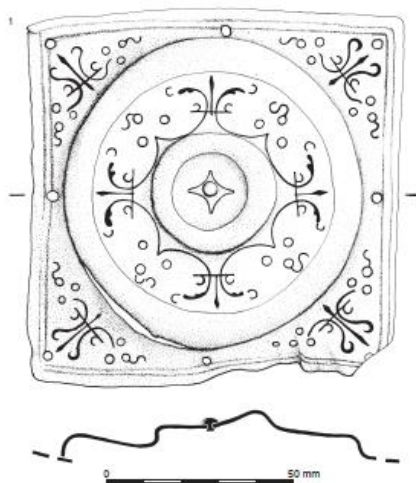
Figure 5.13. Saddle plate from Carlisle, first century A.D. (adapted from Howard-Davis 2009:724, *fig.* 380).

The significance of the parade ground to the identity of the troops who performed there can also be seen in the epigraphic evidence, especially that relating to the continued religious tradition of the *Campestres* – Celtic gods of the training grounds - which originated in Gaul and formed a core component of military tradition for these cavalry units (Davies 1968:73). Altars to these deities can be found at many forts in Britain (Gloster Hill: *RIB* 1206; Benwell: *RIB* 1334; Mumrills: *RIB* 2141; Birrens: *RIB* 3484; Newstead: *RIB* 2121; Cramond: *RIB* 2135; Auchendavy: *RIB* 2177; Balmiudy: *RIB* 2195; Davies 1968:73, 96). Although this

evidence is indirect, the importance of the training grounds for these garrisons may indicate the practice of the *Hippika Gymnasia* here too.
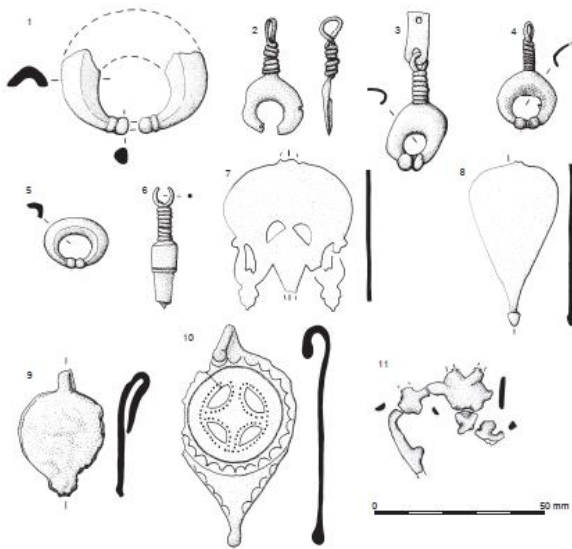
Figure 5.14. Harness fittings from Carlisle, Periods 3-6A (after Howard-Davis 2009:722, *fig.* 377).

This section has synthesised the evidence regarding the contextual display of militaria in different sites and analysed its importance within establishing identity; at the centre of the fort as a totemic focus of identity; and outside the fort, within a quasi-theatrical display of skill that emphasised the exceptionality of the auxiliary cavalry. In these contexts, militaria was used to define the boundaries of the military hierarchy within the fort communities, through privileged access to and use of material culture. For the soldiers, these events served as demonstrations of their qualitative difference from other members of the fort community. For the military as an institution, they provided a social incentive for soldiers to dedicate themselves to military activities, including training and gaining high-status roles within the military hierarchy. Progression through the officer ranks, as discussed in chapter three, was out of the reach of many soldiers; but prestige could still be won through the steady development of martial prowess.

5.3.6. *Specialist training.*

Other military equipment demarcated further subdivisions of identity relating to different roles within the unit (Goldsworthy 1996:263). Roman soldiers used a number of different ranged weapons, from the *pila* associated with the legionaries to the throwing spears and javelins utilised by auxiliary infantry and cavalry. Other forms of ranged weapons have been

elusive or controversial; specifically, the use of weapons such as bows, slings, and artillery pieces by the auxiliaries.

The use of ranged weapons such as the bow and sling was, according to Vegetius, part of the skill set of every Roman soldier, which required continuous training (1.15). Syrian archers, using distinctive composite bows of layered wood and bone construction, originally entered the Roman military of the western Empire as auxiliaries in the early Principate, but by the period discussed here, their skills and equipment were in general use amongst mounted and infantry regiments alike (Birley 1996:15). That such skills were highly valued may be seen in the epitaph of the Batavian Soranus, (A.D. 118):

> 'I am the man who, once very well known to the banks in Pannonia, brave and foremost among one thousand Batavians, was able with Hadrian as judge, to swim the wide waters of the deep Danube in full battle kit. *From my bow I fired an arrow, and while it quivered in the air and was still falling back, with a second arrow I hit and broke it.* No Roman or foreigner has ever managed to better this feat, no soldier with a javelin, *no Parthian with the bow*. Here I lie, here I have immortalised my deeds on an ever-mindful stone, which will see if anyone after me will rival my deeds. I set a precedent for myself in being the first to achieve such feats.'

> (*CIL* III 3676, *ILS* 2558. Cited in Davies 1968:89, emphasis mine.).

As with the *Hippika Gymnasia* (Soranus was likely a cavalryman of *cohors III Batavorum*; Davies 1968:89) these displays of prowess with weaponry and the culturally appropriate marine techniques (see **2.4.5**) were intended to enhance the reputation of the individual in the presence of an elite – here, the emperor Hadrian, a decade before the Lambaesis address. It may also have impressed the trans-Danubian barbarians, who Cassius Dio describes as being so awed by the Batavians' display of skill that they brokered peace with the Romans (69.9.6). It is notable that Soranus emphasised his superiority over his peers as much as his enemies. In doing so, he also emphasises his pre-eminence within his community, demonstrated through his appropriately masculine skills and qualities, and validation by imperial approval.

Within Britain, material evidence for archery is limited. The organic components of the bow, other than the bone ear laths, rarely survive (Coulston 1985:222; **III.1.184**). Iron arrow heads are often heavily corroded and barely recognisable (Birley 1996:15). However they do survive in certain contexts, such as the anaerobic levels at Vindolanda. The examples from

this site indicate the difficulties involved in positive identification. Alongside ear laths (1996:16-17; **III.1.4-5**) arrow heads from the earlier five Periods at this site are well preserved; these were typically bulbous-headed bodkin types, but it is unclear what particular form of weapon they were attached to; with the loss of the shaft it is difficult to distinguish between arrow and javelin heads, although the weight of the majority of the heads here suggested the former (1996:8-9; **III.1.1-42**).

The sling was another effective ranged weapon which could propel simple missiles of baked clay, stone or lead (*glandes*), potentially with great accuracy, although only after extensive training (Griffiths 1989). Evidence for this form of weapon is problematic; the weapon itself rarely survives due to its wholly organic construction (Bosman 1995). An unusual surviving example of a sling pouch constructed of thick cattle-hide, from Vindolanda's Period VI ditch, gives an indication of what these weapons may have looked like; despite being supposedly a low-prestige weapon, it is decorated with geometric swirls in a Celtic style (Birley 1996, **III.1.1**; *fig* 5.15).
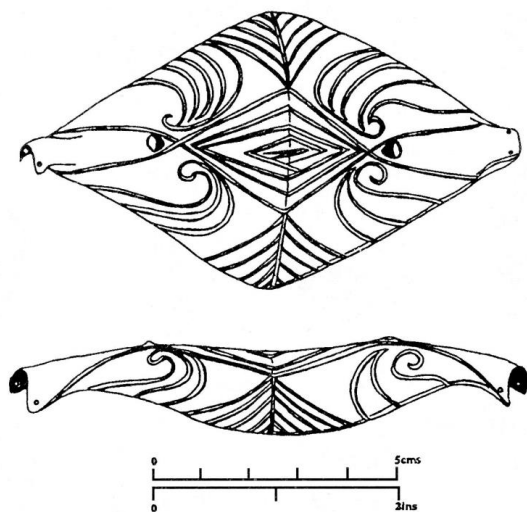
Figure 5.15. Sling pouch from Vindolanda (after Birley 1996:12, *fig.* 1. L3167).

The ammunition used presents further problems. Clay and stone shot are difficult to identify unless found in obvious hoards (e.g. 11,300 in an Iron Age pit at Danebury, and 22,260 in a house at Maiden Castle; Cunliffe and Poole 1995:262, Wheeler 1943:49). Shot of any material was frequently lost in usage, being both difficult and uneconomical to recover (Rihll 2009:156-7). The osteoarchaeological evidence for their use at Maiden Castle indicates that they were used by Vespasian's troops in this context (Redfern 2009b:417), and it may be

surmised in other battles as well. Stone shot (including throwing stones) were found at a number of sites I studied, albeit in much smaller quantities than at the Iron Age hillforts (**III.1.23, 160, 191, 281-4, 291**).

The use of lead *glandes* continued in Britain into the second and third centuries A.D. at forts on and around the western stretch of Hadrian's Wall (e.g. 130 from the Antonine context of Burswark (Greep 1987), and a late third/early fourth century cache found in a house within the Vindolanda *vicus* (Birley 1996:11)). Late Roman finds of lead shot on the continent demonstrate that this form of weapon continued in use for longer than previously expected (Rihll 2009:158). The effectiveness of the weapon itself was a sound enough reason to use it, but it required specialist training (Greep 1987, Griffiths 1989). In the Republic, this training was the reserve of auxiliary units from particular ethnic groups (e.g. Balearic slingers in Caesar's Gallic campaign; *Gallic Wars* 2.6; Griffiths 1989:267). By the Imperial period it was incorporated within general training, but eventually reverted back to solely *auxilia* usage (Griffiths 1989:269-71). The sling was used as a hunting weapon in Iron Age Britain; its survival amongst the fort communities of the northern frontier may indicate a continuation in local tradition that passed into the military through local recruitment to those garrisons (cf. Greep 1987:198; clay shot from Vindolanda Period II, Birley 1996:11-14). The geometric swirls of the Period VI sling pouch at Vindolanda may be an artistic indication of this continuation of tradition – this was a distinctly non-Roman form of decoration.

Finally, there is the artillery, the moveable heavy or siege weapons such as *ballistae* (used to fire heavy bolts) and *catapultae* (which launched heavy rocks). The use of these weapons is usually attributed solely to the legionaries, whose specialist role as close-order infantry in pitched battles meant the large, slow-moving weapons could be put to the most efficient use (Baatz 1966, 1978). However, evidence for these weapons has been recovered from a number of auxiliary sites on the northern frontier that may challenge this position. At Carlisle, parts of *ballistae* mechanisms were identified alongside numerous bolts (Howard-Davis 2009:713; parts: **III.1.566-7**, bolts: **III.1.518-65**). Vindolanda produced examples of apparent artillery boltheads from Periods II-V, potentially indicating they were used by the Batavian and Tungrian garrisons (Birley 1996:26; cf. **III.1.43-69**). At the auxiliary fort of High Rochester in A.D. 220, the garrison of Vardullians (originating in northern Spain) restored an artillery platform, demonstrating its earlier use at this site (*RIB* 1280, 1281).

The use of ranged weaponry involved a distinctive suite of practices. The importance of training in ranged weapons is clearly illustrated by the 'target ox skulls' of Vindolanda, which were pierced by multiple forms of ranged weapon, including javelins and ballista bolts (Hodgson 1976:*pl.* 3, Birley 1996:15, Bennett 2005:159). Vindolanda also produced striking evidence for an unexpected form of archery; a leather thumbstall from a Period III context was used for the Mongolian release, which required the use of protection for the thumb used to hold the bowstring (Birley 1996:18, L4164; **III.1.6**). Alongside the decorated sling pouch, this indicates how specialist skills brought into the Roman military could survive as prestigious practices, and potentially signify distinguished individuals or groups within the unit itself.

Weaponry itself could therefore be used to delineate variation and challenges to broader norms within the military community. The embodied aspects of these weapons can be read in the skills required to utilise them effectively in battle, and also in demonstrations of skill. Such actions emphasised the special qualities of the soldier when contrasted to outsider groups, and to non-combatants within the military community. This was however a reciprocal relationship; just as soldiers utilised weaponry to their own ends, so too were their bodies required to adapt to the demands of this form of material culture.

5.3.7. *Object and individual biographies.*

The relationship of an auxiliary soldier with his equipment can be elucidated in general terms. Skill in the use of a range of weaponry was developed over time and maintained through regular practice, in order also to become accustomed to bearing the weight of equipment through the use of lead-weighted wooden weapons and double-weight shields (Vegetius 1.11-2, 1.15). This process required him to develop muscles that were unlikely to have been used in everyday life even by farm labourers – for example, the strong overhand grip used to effectively wield the large Roman *scutum* (Dixon and Southern 2002:119). Training was therefore a transformative process physically as well as socially for the recruit.

The possessions of a Roman soldier degraded over considerably different timescales. Whilst organic materials such as textiles and leather boots may have worn out over short periods of time (even over a single march; Atkinson and Morgan 1987), weapons and armour, if correctly maintained, could outlast the soldier himself (Bishop 2002:88). This can be seen in the multiple inscribed names on different items of Roman arms and armour (see above);

although some of these transfers may follow bartering among the soldiers, it is probable that new soldiers wore the panoply of a predecessor in many cases.

The importance of well-maintained equipment to the soldier is emphasised in a second-century anecdote of Fronto, in which Syrian troops failing to maintain their equipment led to their commanding officer, Pontius Laelianus, tearing up their armour - stripping them of their military identity (Fronto *ad Verum Imp* 2.1.19, cited in Phang 2008:106; this was presumably scale armour). This act isolated the troops from their peers and predecessors. Such failures of discipline were held to be endemic amongst the legions of the eastern empire, which were notorious for their lax attitudes to standard military duties including the maintenance of equipment (e.g. Tacitus *Annals* 13.35), but these concerns are an indication of the proactive role expected of soldiers across the Empire in sustaining an appropriately military *habitus* through the presentation of the self in action and appearance. Roman armour, for all its scuffs, repairs, and repurposing was nonetheless expected to gleam on the battlefield (Vegetius 2.14, cf. Phang 2005:211-12). It seems that like castrametation, the care of weaponry and equipment was considered the personal responsibility of the soldiers (Davies 1974:48; although as Phang has argued, cleanlinesss is not as valued in ancient sources as it is among modern militaries, 2005:212; cf. Belkin 2012:125-50).

In other cases however, new equipment would have been the product of recycling of older material and this was the likely end for many items of militaria that had reached the end of their usable life (Bishop 1985:9; see *fig.* 5.16). Such scrap items could be remade to serve other functions. This would apply particularly to smaller items that would be expected to be lost and replaced on a regular basis, such as arrow heads, hobnails, and *lorica squamata* scales (Coulston 1985:264). Even larger weapons may also have been lost and replaced as matter of course, as suggested by *Tab. Lugoval.* 16 from Carlisle, a list of items lost by a *turma* of cavalry that included a number of spears (Tomlin 1998:56). This had a concomitant effect on the suitability of particular weapons for displaying particular forms of identity. Spears, being essentially disposable and easily replaced, could be used to demonstrate martial skill. Swords and daggers, as permanent and high-status items within a soldier's panoply, were suitable for ostentatious decoration and investment. As such, they occupied a more central place within the soldier's sense of self.

MILITARY EQUIPMENT AND THE LIFE CYCLE OF A ROMAN SOLDIER

LIFE CYCLE	USE OF EQUIPMENT	
birth ↓ young male ↓		
military service *(miles)* ↓ (promotion) ↓ discharge *(veteranus)*	weapons granted by the army ↑ (renewed equipment) ↓ sold to the army	military use
↓ civilian ↓ death	weapons taken home ↓ ritual deposition (burial)	ritual deposition (cult place/river/ rural settlement) ↑ inheritance ↓ · social use

Figure 5.16. The life-cycle of a Roman soldier and his equipment (redrawn by C. Littleworth after Nicolay 2007:158, *fig.* 5.1).

As his equipment aged, so too did the soldier. The role of veterans in the distribution of militaria in the Batavian homeland was investigated by Nicolay, who argued that the Batavian auxiliary's use of his personal weaponry changed over time in relation to his age. This was used to produce a model of the life cycle of the Roman soldier, and his use of military equipment (Nicolay 2002:57, *fig*.6; cf. Nicolay 2007). In essence, the military equipment purchased by the soldier at the outset of his military career was maintained by him throughout; on his retirement he could take this equipment home with him, whether that was local or in his homeland (2002:62; for the role of militaria in civilian contexts see Nicolay 2007:157-206). Nicolay draws a distinction between 'military' and 'social' usage that would not be utilised here, but the role of weaponry within ritualised events at the end of or after military service demonstrates also their significance within service too.

5.3.8. *Militaria Summary.*
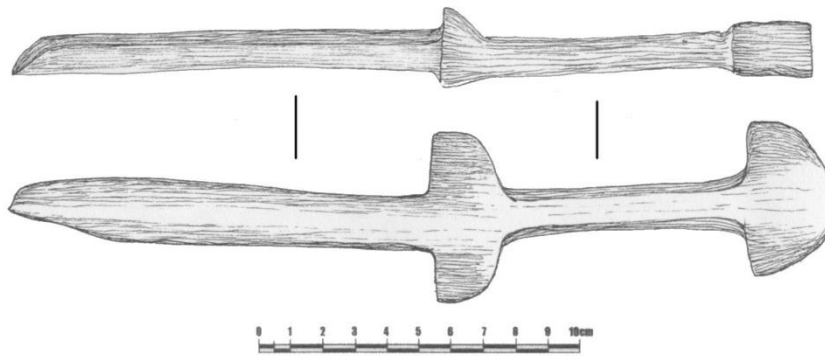
Figure 5.17. Wooden toy sword from Vindolanda, Period III (after Birley 2003b:238, *fig.* 137).

The material remains of militaria on northern military sites are sparse, with often only a few small, easily lost items representing this category, such as armour scales and arrow- and spearheads.   Larger finds, such as the *manicae* from Carlisle and the segmented armour pieces from Newstead and Carlisle, are typically restricted to unusual contexts such as hoards or (possibly) ritual deposits (cf. Bishop 1999).   Larger weapons such as swords and shields are even rarer (my survey of sites revealed only a few fragmented examples; shield components: **III.1.145**, **III.1.182**, **III.1.524**, sword components: **III.1.193, III.1.573-6**).   Yet these were items that were at the centre of military life and the display of military identity, and the fact they are so rarely found reflects the tendency of militaria to be well cared for, to pass between owners, and to be recycled at the end of its lifespan, all in the context of a community that attached prestige to such items (note the toy sword from Vindolanda, perhaps belonging to a child imitating a father or other relative; **III.1.8**, *fig.* 5.17).

An understanding of the broader significance of arms and armour in demonstrating a military identity can help us to understand how such items figured into everyday life on the northern frontier.   With the idea accepted that auxiliary soldiers, infantry and cavalry, were fully incorporated into the material culture domain of the military – bearing both arms and armour essential for their role – the discussion has by necessity turned to historical and sociological discussion of the social and practical role of these items.   These have helped to demonstrate the multiple ways in which military identity was lived through militaria.   First, the shared form of dress (particularly the military belt, but also counting armour and helmets) acted as a 'uniform' by which membership of the broader military community was actively stated.   Secondly, that said dress was used to define a relationship with others: in the case of militaria

in general, this was between soldiers and non-combatants, but distinctions within the garrison could also be made. Different designs of armour, or patterns of rings or scales could be used to identify individuals; the 'sports armour' of the *hippika gymnasia* meanwhile emphasised the prowess and status of the cavalry troopers; and the use of specialised items of weaponry and kit (such as the 'standard tips', or the *vitis* of the centurions) could demonstrate different official roles within the broader military and the fort community. Finally, arms and armour were not passive identity markers, but required strength and skill to utilise, as well as significant maintenance over time. Even if their use in battle was not a common occurrence, regular training and marches will, as in modern militaries, established communal bonds based around the shared experience of hardship and pride in collective skill in arms.

Militaria as a form of material culture thus constitutes an essential means of communicating identity within the fort community, demarcating through their bodily use or presence the boundaries between soldiers and non-soldiers. This was an identity that emphasised authority, power, and masculinity, as expressed directly through the controlled threat and use of violence – but also through the display of wealth and individual prestige. As discussed in chapter two, these masculine traits lay at the core of Roman martial identity. For non-citizen auxiliaries to engage with this form of material culture was for them to assert their ownership of this identity and its corresponding status within the wider Roman world, and within their home communities. Although this process can be seen as part of the indoctrination of 'martial race' soldiers (see **2.4.3**) into the Roman military institution, militaria also served as a means of identifying with non-Roman traditions, both martial and artistic. This can be seen in the Roman incorporation of 'ethnic' martial skills (in particular the dedicated cavalry regiments), and also in the adoption of decorative art forms that also had a regional significance

The Roman military, in the 'greedy institution' interpretation, can be seen here as isolating its members from non-members through exclusive access to militaria and the social signifiers it represented. The auxiliary soldiers were constrained in terms of their time and energy by their commitment to military goals and to organisational control; this much could be seen in the daily reports and task assignments within the Vindolanda tablets. However, they were also enabled or even encouraged to display individuality within certain contexts; through the personalisation of equipment and the competitive display of skill during training and events

such as the *Hippika Gynmasia.* Soldiers had leeway to stand out from their peers in this regard, albeit still within the performance of martial roles.

Weaponry too was overseen and controlled; *Tab. Lugoval.* 16 from Carlisle lists spears lost in training by a squadron of cavalry. This was not a punitive list however, but a notification that they needed replacing, from the pay of the troops (Speidel 2007:239). This is a reminder that behind the public display of military strength that was at the forefront of daily life within the fort community was an infrastructure based around the supply, construction and maintenance of the buildings as well as of the small finds. In the next section, activities based around crafting are explored as another arena through which identities were constructed, presented and challenged.

5.4.1. *Part two. Craft and industry.*

'An army benefits from hard work, but decays through idleness.'

(Vegetius, 3.26.)

As I discussed in chapter four, fort communities were established to fulfil a military function, but the processes involved in the establishment and maintenance of these settlements involved a host of skills and participants beyond those directly related to military activity. Among the identity groups contained within the military community, those involved with crafts and industry played a significant role in daily social life in the fort, and also contributed a great deal to the small finds reports of such sites. I analyse here the small finds evidence for construction and repairs (see **Appendix III.2**), metalworking (**III.3**), leatherworking (**III.4**) and textile working (**III.5**) in this region, and discuss the significance of such activities to individuals within the fort community seeking to negotiate their place within the 'greedy institution' of the military. I argue that the activities in this section both strengthened and challenged the hold of the military on the soldiers and on the fort community as a whole, as non-martial skills and the need for external resources came to the fore.

The role of military equipment and dress in the presentation of a collective military identity amongst the *auxilia* has been addressed. How these items entered the physical space of the fort community, and their subsequent maintenance is now considered. This approach addresses the complex biography of any artefact; beginning with the acquisition of the raw materials, then their processing into finished objects; subsequently to their distribution, their use and maintenance, and finally their deposition within the archaeological record (further taphonomic processes are beyond the scope of this thesis although they are important in the context of any given assemblage). At each stage of this process, a different set of skills was utilised, and thus displayed, by the 'owner' of the item. The aim of this section is to analyse the significance of these skills and processes within the fort community, in terms of interactions with other inhabitants, outsiders, and the environment. I will argue that this arena of activity dominated life within the fort and *vicus*, involving all members of the community and many beyond. As this entailed activities and interactions outside the normal military context, such activities had the potential to challenge the 'greedy institution' of the

military, offering alternative means of gaining status and acquiring wealth within the fort communities of the north of Britain.

The supply of equipment and resources to the Roman bases around the Empire is a contentious issue within Roman military studies. The production of weaponry and armour in the Late Empire was carried out in centralised factories (James 1988) but the first century situation is much less clear; arguments have ranged from a similar system of centralised production with only repairs carried out at forts (Robinson 1975:8), to a distributed, *ad hoc* supply network based on local dealers and craftsmen (MacMullen 1960:25, cf. Bishop 1985:1). Given the peripatetic nature of military units in the first century, fixed transport networks were initially a problematic means of supporting forts with essential supplies, let alone complex and bulky military equipment. Fort communities were required initially to be self-sufficient to some degree, with production based both within the geographical space of the fort and in the collective skills of the inhabitants of the site (Bishop and Coulston 2006:234; cf. McCarthy 2013:92). *Fabricae* have proven difficult to firmly identify – the description often being applied to any courtyard building with associated evidence for metalworking (Bishop and Coulston 2006:234-5; **4.4.6**) – but workshops must have been common within frontier forts, as separate buildings or as sub-rooms within larger structures.

Clearer evidence for craft activity is found amongst small finds. Roman craftsmen across the Empire utilised a wide range of similar tools, of forms often still used today (Ulrich 2007:14). These are rarely recovered from archaeological sites for a number of reasons. Like weapons, they were made of wood and/or iron, which are vulnerable to decomposition and corrosion; they were also valuable assets that would have been carefully curated and so were rarely lost. Fortunately in northern Britain, damp conditions (such as the anaerobic ditch contexts at Vindolanda and Carlisle) have produced a number of discarded or lost tools, typically from construction or demolition contexts (2007:13-14, Blake 1999:1). Tools have also been recovered from buildings that would not be primarily associated with crafting processes – this is especially striking in the case of the workshop rooms identified within the *praetoria* at Vindolanda and Carlisle, a setting often considered reserved for high status social activity (cf. Blake 1999:1, Zant 2009:98-9; Appendix **III.2-5**).

The discussion examines the evidence from a number of forts on the northern frontier of Britain for specific crafts associated with the production, maintenance, and eventual disposal or recycling of material culture. This broad category encompasses militaria, but also

domestic and other industrial items. A great range of materials (as highlighted in the Corbridge case study) have been recovered from Roman military sites that indicate local manufacture and recycling of raw materials, but the focus here is on construction and maintenance, metalworking, leatherworking, and textile working. These are categories of material culture for which the evidence of manufacture can be seen in both the products and methods of manufacture. Finally, this section addresses the low social position of the craftsman in the Roman world (cf. Brewster 1917:5-6, Burford 1972, Ulrich 2007:7), and question how this role related to identity and status within the fort community.

5.4.2. *Clearance, construction, and maintenance of the fort by its community.*

As discussed in the previous chapter, the auxiliary fort adapted the form of the marching camp to permanent occupation by utilising durable materials such as timber and stone. Building work on the northern frontier was an ongoing process over the late first, second and early third centuries, beginning with the establishment of the Stanegate forts, then Hadrian's Wall and its associated forts, road and Vallum, then on the Antonine Wall, before a final phase of repair work on Hadrian's Wall under Severus (Allason-Jones 2008a:43). The construction process embedded the military community within a region's population, and made omnivorous demands on the local landscape, as discussed below.

Although the initial construction of the forts of this region was carried out by legionary soldiers, subsequent building work was often carried out by the auxiliary garrison (Johnson 1983:43-4; legionary labour: *RIB* 1354-64, local labour: *RIB* 1672-3). Auxiliary labour is supported by the presence of building inscriptions commemorating building projects carried out by garrisons within forts (e.g. Netherby: *RIB* 978; Benwell: *RIB* 1340; Risingham: *RIB* 1241; High Rochester *RIB* 1272, 1276, 1279, 1280, 1281; Carvoran: *RIB* 1820; Hardknott: *RIB* 3219; Chesters: *RIB* 3300, 3301; Carrawburgh: *RIB* 3317; High Rochester: *RIB* 3491; Newcastle: *RIB* 1462; Birdoswald: *RIB* 1909. Building work was also carried out on behalf of auxiliary soldiers; e.g. *RIB* 605, 1463, 1465). Roofing tiles were occasionally produced by auxiliary units, although thatch and shingles were serviceable alternatives (*auxilia* tile-stamps: *RIB* II.4.2464-2480).

As well as construction of new buildings, auxiliary workmen also repaired and replaced existing buildings (e.g. Benwell: *RIB* 979, 1334, 1337; Risingham: *RIB* 1234; Newcastle: *RIB* 1465; Birdoswald: *RIB* 1912). Evidence that the auxiliary soldiers themselves were carrying

out this work can be seen in the strength reports of the Tungrian garrison at Vindolanda, which show builders from the unit (*structores*) being assigned to the baths, the hospital, and to a guest house (Period I; *Tab Vindol.*II 155, 156: building equipment: Duncan Jones 1980; Appendix **III.2**).

The locating of Roman forts was driven primarily by strategic concerns, which in the north led to the occupation of sites of differing environmental character and with varying imposition onto local populations. The greatest disturbance came with the construction of Hadrian's Wall, but each fort community impacted upon the landscape to some degree. The building and maintenance of a fort required the clearance of land, the collection of materials – and the displacement of any native occupation of the site. The Iron Age population of northern Britain was far more dispersed than in the south however, with most settlements either at the level of homesteads or small villages, and an economy based upon a mix of pastoralism and agriculture (Hodgson 2003:33, Harding 2004:304). Recent palynological studies have shown that the landscape of Roman Britain had been subject to deforestation long before the arrival of the military - although this had been piecemeal, dependent upon local requirements such as arable or pastoral farming (Dumayne 1994, Manning *et al* 1997, Dumayne-Peaty 1998; cf. Hanson 1996).

Fort sites were rarely actively in use on the arrival of the builders, with limited archaeological evidence for Late Iron Age structures. Forts built during the earlier campaigns in the north, such as those of the governor Petillius Cerialis (A.D. 72/3) were, perhaps out of expediency, built in vacant, economically marginal areas. Ribchester (*Bremetenacum*), established during the annexation of Brigantian land, was situated on a riverside plot that was prone to damp and silting, and suffered consequently with multiple phases of reconstruction (Buxton and Howard-Davis 2000:*xv*, 47-8). The Carlisle fort was also built in an area unused during the Iron Age, on land that was a mix of rough, boggy pasture and scrubby woodland (Zant 2009:5, Howard-Davis 2009:484). Further north, Elginhaugh was also built on land under pasture, but with no clear Iron Age features (Hanson 2007b:25, 29). Vindolanda was built on a plateau with excellent water supplies, but determining Iron Age occupation of the site is problematic given the deep nature of the archaeology at the site (Birley 1994a: 15). There are multiple plausible reasons why these forts were sited away from population centres; concerns over safety are likely although some deference to local politics may also have been shown.

The situation was somewhat different for Hadrian's Wall. The easternmost fort, Wallsend, was built over a small farmstead that had been preparing for a new crop (Hodgson 2003:32-3; an earlier Iron Age roundhouse also preceded the fort at South Shields, Bidwell and Speak 1994:13). The exploitation of the Whin Sill ridge by Hadrian's Wall led to the establishment of some forts in more remote locations in the central stretch, used by locals for pasture rather than agriculture. The clifftop site of Birdoswald, for instance, avoided deforestation in the early Iron Age due to its unsuitability in this role; as at Carlisle the first step in construction was to begin this process (Wilmott 1997b:37, 39). The lack of agricultural activity prior to construction at Housesteads is however unexpected (cf. Crow 2004:270). The development of Hadrian's Wall therefore consisted of varying degrees of imposition, with a few native sites disturbed in the eastern stretch but for the most part running through unoccupied landscape. As the line of the Wall follows high, craggy ground across much of the isthmus, this is perhaps to be expected (Breeze and Dobson 2000:28-9).

If the forts themselves did not generally displace immediate populations, then the collection of the resources required to build and maintain them could certainly have impacted upon the broader landscape. Timber forts such as Vindolanda, Ribchester, Carlisle, and Elginhaugh required a large quantity of wood, and it was initially believed that these were constructed with prefabricated components (cf. Richmond and McIntyre 1939), although this has since been discredited. It is now accepted that the Romans exploited local woodland for building materials, using established systems of measurement to achieve standardisation (Evans 1994:149-50, Hanson 1978:298, Howard-Davis 2009:805; cf. Walthew 1988, 2005). Pockets of ancient woodland surviving into the Roman period formed an important source of building material (timbers and wattle) and fuel (firewood or charcoal). The timber of choice was oak, although during the initial stages of a fort's existence less suitable but more local sources of wood were often utilised (Hanson 1978:298; cf. Richmond 1968:120). At Carlisle the first timber fort was constructed from local alder and ash, and only later replaced with oak (Howard-Davis 2009:484-6; cf. Goodwin and Huntley 1991:64). This oak came from the same source as that used at Vindolanda, around 45km away, indicating that it had travelled only slightly further (Manning *et al* 1997, Howard-Davis 2009:486).

The volume of timber required to construct a mid-sized fort 4 acres (*c*.1.6ha) in size has been calculated at 22,000 cubic feet (623 cu.m.), requiring the clearance of between 16 and 30 acres (*c*.6.5 to *c*.12ha) of woodland, meaning that the actual footprint of the fort extended far

beyond the fort and excavated *vici* (Hanson 1978:298). The actual area of forest cleared depended on the type of woodland and the selectivity of the Roman woodcutters. At Carlisle, builders preferentially felled old, straight oak trees, leaving younger or less suitable trees standing (Howard-Davis 2009:803); this pattern was typical for the forts of the northern frontier (J. Hillam, in Buxton and Howard-Davis 2000:370). Woodland was thus managed, with younger growth coppiced for building material, as weapon shafts (cf. Allason-Jones and Bishop 1988:13, spearhead no. 31), or utilised for fuel.

The question remains of why these old, large trees were not exploited in the Iron Age; were they, as Howard-Davis suggests, sacred or private groves (2009:803)? This would demonstrate an imposition onto the landscape that would antagonise local populations, certainly in the earliest years of the fort, before irrevocably changing the immediate landscape as these resources became depleted. The role of road systems in imposing a Roman character and sense of place onto a landscape has been noted elsewhere (Witcher 1998); I believe changing woodland should also be appreciated in this light. Sharples, discussing the use of timber monumental structures at Maiden Castle in the Late Iron Age, noted that these 'were a means of embedding the landscape and its inhabitants into the monument', as they incorporated wood from trees that had a prominent place in the landscape (2007:180). The Roman destruction of woodland for large building projects will have sent a similar, but far more exclusionary message to the surrounding population. That it would also prevent ambushes on military patrols must also have been a consideration, of course (cf. Caesar *Gallic Wars* 5.15, Tacitus *Agricola* 20, 37).

Figure 5.18. Reaping- or billhook from Vindolanda, Period III (after Blake 1999:30;cf. **III.7.4-5**).

Even when construction had ended, the fort remained a drain on local woodland, requiring a continuous supply of fuel (up to two-thirds of a tonne per day for a *cohors equitata*: Croom

2011:41). Vindolanda's scrubland surroundings were also exploited for bracken, used in the Pre-Hadrianic forts as bedding for livestock and flooring to absorb water. Collecting this would have been a time-consuming process for the soldiers, with at least 1 ha (2.5 acres) required to cover a 30m^2 space (Seaward 1993:93-5; reaping hooks at Vindolanda: Blake 1999:29-30, inv. no. 3738, 4413; *fig.* 5.18). The occupants were less than diligent when it came to changing this flooring, with multiple layers building up over time, retaining waste such as excreta, along with the bones of various animals. However, this enabled the preservation of organic material at the site by establishing anaerobic environmental conditions (see above, Seaward 1993:116). Bracken at Vindolanda was dried and stored (it is not clear where) before being put down, reducing the numbers of arthropods within the fronds, and more importantly the smell, before it was laid (1993:95). The living conditions of auxiliaries were nonetheless quite squalid, especially so for the cavalrymen (Davison 1996:180, Buxton and Howard-Davis 2000:74-5), and the intermittently changed bracken and straw laminate flooring at Vindolanda even in the *praetorium* indicates that the higher status of some individuals within the military hierarchy did little to change this basic fact of life (Birley 1994a:12-13; see **3.2.2**).

These processes of construction and maintenance ensured the fort always affected a greater influence over the local landscape than the fort plan might indicate. The effect on local populations of this imposition, through the exploitation of local resources or the imposition of road networks, may be seen as comparable to that of the display of militaria as a show of military dominance. Despite some limited use of local labour, for the most part fort architecture was constructed by members of the military community, for members of the military community. This kept the demands of the military on external populations limited; self-sufficiency in this regard also helped to restrict the formation of personal bonds between soldiers and those outside the military. The military institution can be classified as 'greedy' in this respect, as it relies upon its members to perform essential tasks.

Other forms of craft and industry had a lesser impact on the surrounding landscape, but similarly reflected the economical and cultural dominance of Rome, both to native Britons and to members of the fort community of lower status than the soldiers. I first argue how this may be interpreted in the display of wealth and status emphasised within metalworking.

5.4.3. *Metalworking: the military blacksmith.*

As with other craft activities, metal working was not restricted solely to specific production areas, such as forges, nor to skilled craftsmen. Softer metals such as lead and copper melted at low temperatures and could be worked over standard hearths, with ceramic crucibles and moulds (Oldenstein 1985:83; cf. Allason-Jones and Dungworth 1996). Molten lead could even be moulded into slingshot in wet sand, as seen at the fortress of Velsen I in the northern Netherlands (Bosman 1995:99; cf. Caesar *African War* 20). The level of skill required to produce replacement items in these metals was low, and the only significant resource expenditure was in providing the raw material of lead or copper alloy (perhaps from scrap), clay for moulds, and fuel for the fire (Allason-Jones and Dungworth 1996:320-1; for metalworking tools see Appendix **III.3**).

Iron, by contrast, required specialist skill to utilise. Iron was fundamental to industry in the Roman world, being used in processes as diverse as quarrying, woodworking, construction and agriculture (stonecutting: Blagg 1976, Pearson 2006; cf. Manning's catalogue, 1985a). In military contexts it found a plethora of uses, from the arms and armour of the soldiers, to structural fittings for buildings, to locks and keys, to modes of transportation such as wagons and ships, and to domestic items such as knives and razors (Sim and Ridge 2002:18). These items ranged from the complex and mechanical (e.g. tumbler locks and artillery pieces) to the simple (e.g. hobnails and arrow heads). Iron rarely survives in good condition archaeologically being susceptible to corrosion through oxidisation, but hoards such as the demolition deposits at Inchtuthil, which contained nine tonnes of discarded nails, demonstrate the ability of the Roman military to access and use enormous volumes of this valuable metal (Manning 1985b:289, cf. Bray 2010).

The role of the Roman military blacksmith has been addressed by scholars who have brought their contemporary metalworking experience to their study of the production of equipment (cf. Manning 1976, Bishop 1985:10-11). Several have used literary sources, metallurgical examination of artefacts, and experimental archaeology based on their experiences as professional blacksmiths to reconstruct the practice in the ancient world (e.g. Sim 1992, 1998, 2012, Sim and Ridge 2002, Sim and Kaminski 2012; cf. Craddock 1995, Fulford *et al* 2004). This holistic approach has enabled our understanding of the techniques involved, as well as the appearance and function of finished items, to be taken beyond literary description and artistic representations (Sim and Kaminsky 2012:3). The tools and processes utilised in

Roman blacksmithing were essentially the same as those of modern craftsmen (Manning 1976:146; Sim and Kaminsky 2012:1; the Period V *fabricae* at Vindolanda produced a small set of metalworking tongs: Blake 1999:19, inv. no. 5301). Sim has traced out the process of reconstructing different iron artefact types, from the acquisition and working of raw materials (Sim and Ridge 2002), the manufacture of smaller disposable items (1992, 1994, 1998) to full outfits of armour (Sim and Kaminsky 2012). These reconstructions provided an understanding of the skills and processes involved in metalwork and thus also something of the professional lives and identities of the original practitioners at northern British sites.

There are dangers to uncritically direct analogy between modern and ancient practices, however. It is necessary also to consider the gulf between modern understandings and beliefs regarding the properties of metals, and those of Roman and Iron Age smiths (cf. Hingley 2007:218-9). Any tool made of iron had not only a functional significance but also signified the control of its maker or owner over a complex, value-laden material that required a large network of experts (from miners, smelters, and merchants to smiths) to effectively utilise (Garrow and Gosden 2012:111). Studies of ironworking in the Late Iron Age and Roman periods has begun to incorporate the potential religious and cultural significance of this material alongside its physical characteristics, drawing parallels between its ritual deposition in waterways in the Iron Age and the continuation of these practices in the Roman period (cf. Aldhouse-Green 2002, Rogers 2005, Hingley 2007, Garrow and Gosden 2012). Appreciating iron as a symbolically-loaded material in its production, use, and deposition, provides depth to the study of this material.

Metalworking during the Roman occupation of Britain also had a political element in that it represented a point of conflict between native and foreign industrial traditions (Hutcheson 1997). The production and display of weaponry, a traditional means of masculine self-expression during the Iron Age (cf. Giles 2012), had been banned in most civilian contexts under the *Lex Iulia de vi Publica* (*Digest* 48.6.1), but was practiced to an industrial level by the military to emphasise its wealth and prestige (Rogers 2005:34, Giles 2007:236, Bray 2010; for the possible exemption of the Batavians and Tungrians: Roymans 1996b:31). Not only did this mean native British nobles were forced to find other means by which to demonstrate status (thus undergoing a degree of emasculation), it also meant if native craftsmen were to maintain their skills, they would do so in part by producing tools, armour and weaponry for the Roman military (cf. *RIB* II.3.2428.14, 15, 18). This was a subversion

of pre-existing power networks, extant throughout Iron Age Europe, in which the authority of native leaders was legitimised by their control of metalworking skills and resources (Rogers 2005:33).

The presence of metalworking activity within the *praetoria* of Vindolanda and Carlisle may indicate harnessing of this social capital; at the very least it indicates that the commanders' residences were appropriate sites for crafting activity (*contra* Birley 1994:88). A similar significance may be noted in the positioning of metalworking activity by gates in both Roman forts and in Iron Age settlements such as Gussage All Saints in Dorset (Garrow and Gosden 2012:277-8), as control of this resource became part of the means by which Roman power was projected through architecture. This was a display of power and exclusion at the boundaries of the fort, that also forefronted the importance of craft skill within the community as a source of status.

Figure 5.19. Roman blacksmith, on a late second/early third century vessel, Corbridge (after Sim and Kaminski 2012:26, *fig.* 11).

Roman military blacksmiths were *immunes* drawn from the ranks of the soldiers (*Digest* 50.6.7; *fig.* 5.19). These would have been assisted in their duties by less skilled assistants; three strikers, and a fire manager to control the forge temperature have been suggested (Sim 2012b:46). Military blacksmiths worked with billets of iron imported from production centres

elsewhere, especially from the state-controlled bloomeries of the Weald of Kent (Cleere 1971, Manning 1976:143, Brodribb and Cleere 1988; cf. McCarthy 2013:95-100). Some limited evidence for this long distance trade can be seen in **II.4**, which concerns the purchase of 90lbs of iron as a raw material (cf. Bray 2010 for discussion of prices), and the supply of worked iron in the form of hobnails may also be seen in **II.28** (building nails have not so far been mentioned in the tablets; cf. *RMR* 82). As discussed below, the demand for replacement hobnails will have been incessant (and the tools were present at Vindolanda for their creation; *fig.* 5.20).
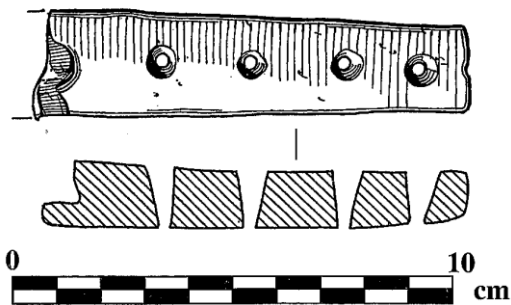
Figure 5.20. Drawplate from Vindolanda, Period III (after Blake 1999:56).

Named craftsmen are rare in military contexts, but a few have been identified. At Vindonissa, Crescens, an auxiliary, was sent to work in the weapons forge of Agilis (*Tab. Vindon.* 34; Speidel 1996:78). At Vindolanda, a number of tablets record auxiliaries being sent to work in the *fabricae*. **II.38**, from Period II or III, names three craftsmen involved in ironworking – Huennius, Andauer, and Tagomas. These names are Germanic, indicating they were probably auxiliary soldiers (either Batavian or Tungrian; Bowman and Thomas 2010:210-4). We do also know that metalworking was an activity that involved large numbers of soldiers working together: *Tab. Vindol.* II 155 provides an account of the daily allocation of duties (cf. Bowman and Thomas 1994:98-100):

> '25 April, in the workshops, 343 men.
> of these: shoemakers, 12
> builders to the bath-house, 18
> for lead ...
> for ... wagons (?) ...
> ... hospital ...
> to the kilns ...

for clay ...

plasterers ...

for ... tents (?) ...'

for rubble ...

...'

(Morning report of the First Cohort of Tungrians, Vindolanda Period II. *Tab. Vindol.* II 155.)

This demonstrates a substantial proportion of the garrison could be involved in industrial activity at any one time. An extensive range of tools, structural fittings, and militaria will have been required by the fort community in order to remain effective, with production overseen by a few skilled master craftsmen. A Vindolanda tablet (Period II/III) reports the manufacture within a workshop of various wagon parts (*Tab. Vindol.* IV 862 = **II.38**; cf. *Tab. Vindol.* II.160), but it is probable that a larger range of items would have been in production at any given time (a daily work record from a third century B.C. workshop in Egypt lists thirty types of tools under production, comparable to those found on Roman sites; Ecclestone 2007:7-8). The Corbridge Hoard and Carlisle deposits discussed above may demonstrate the range of objects typically stored within such a workshop.

Copper alloy and iron items could be made by low-skilled craftsmen, using moulds and a range of fairly simple tools for blacksmithing (Sim 1992, 1997, 1998, 2012b). Tools and replacement parts for vehicles may have been made on an *ad hoc* basis, but items such as nails, armour rings and scales, and projectile weapon heads will have required frequent replenishment. To make these required relatively little skill – unskilled soldiers seconded to the workshops could be expected to pick up the basic procedures very quickly – but could be extremely time intensive (Sim 1997, Sim and Ridge 2002:112-5). A single cuirass of *lorica hamata*, containing 170,353 rings, was calculated by Sim to have taken around 4,813 man-hours (*c*.1.3 years) to construct (1997:370-1). The 343 soldiers in the workshop in *Tab. Vindol.* II 155, under the supervision of skilled blacksmiths (perhaps Huennius, Andauer, and Tagomas) could have reduced this to 14.03 hours by working on separate sections of the same suit together. It is unlikely that labour would have been as concentrated as this, but it indicates the importance of collective labour to iron working. For the seconded soldiers, as with the collective act of castrametation, such a process will have encouraged the formation of strong social bonds with fellow soldiers, by achieving a collective goal.

Softer metals such as copper alloy and lead could be worked on a dispersed, individual basis, but this still relied upon the supply of scrap, fuel, and blanks of items to be produced. As such it was reliant on – and often incorporated with – other crafting processes.

5.4.4. *Leatherworking.*

Leather, as discussed above, is one of the few organic materials to survive in quantity at Roman sites in Britain, in waterlogged contexts such as at the early wooden forts of Vindolanda (Driel-Murray 1985, 1993, 2002). Many of the issues relating to the preservation of metal artefacts are shared by leather as a material, depending on how it was tanned. Animal hides are processed into leather through one of three techniques: vegetable tanning; chamoising or oil tanning; and tawing or mineral tanning (cf. Waterer 1976:179-80). Although vegetable-tanned leather will be preserved in waterlogged contexts, alum-tawed leather will rot (1976:181, Driel-Murray 1985:44). Like militaria, leather was rarely discarded in good condition; most leather assemblages consist of industrial by-products (offcuts, horns and feet) and worn-out items (1985, 2002). Vegetable-tanned leather is best suited for hard-wearing, tough items like footwear and tent panels, and these predominate in site assemblages (Weterer 1976:180). This means we have a very limited perspective on leatherworking on the northern frontier, based mainly on the surviving tools where organic assemblages do not survive (see Appendix **III.4**). However, vegetable-tanned leathers played a significant role in military life and so are worthy of discussion in relation to craft activity.

As with iron smelting, the initial tanning of animal hides took place away from settlements, due to the noxious fumes emitted during the process (Driel-Murray 1985:62). Combined with the limited equipment needed, this left little evidence in the archaeological record beyond the byproducts mentioned above, and some tools (*fig.* 5.21; **III.4.-**). However, within the context of the fort community it may be expected that leather arrived through trade as a usable raw material. The military demand was immense; it took 70 goatskins to make a *contubernium* tent, for instance, and the leather shield covers required 1.5 to 2 goatskins (Driel-Murray 1985:46). A cohort of 480 soldiers would therefore have required the skins of 5160 goats to be fully equipped with these items. Leather was used for many other items; from horse saddles and harnesses to water and wine skins, furnishings, sheaths, armour fittings, shoes, belts, and miscellaneous straps and thongs (1985:44).
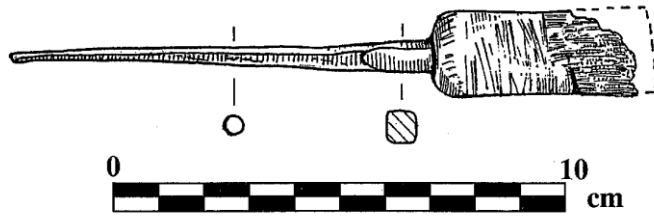
Figure 5.21. Leatherworking awl from Vindolanda, Period II (Blake 1999:39).

As discussed above, some industrial activities were connected to a particular moment in the history of the fort. One connected to the withdrawal of a garrison was the repair and maintenance of the tents, in preparation for time spent *sub pellibus* ('under leather'). Tent fragments recovered from the sites of Newstead, Vindolanda and Valkenberg have helped experimental archaeologists recreate those portrayed on Trajan's Column (Driel-Murray 1990:109). The 70 goatskins were shaped into standardised panels that could be straightforwardly assembled and replaced within an organised system of labour (1990:116, 118). Such processes did not have to occur solely at the end of a fort's lifespan, but could have taken place throughout its occupation. **II.17** records the delivery of 6 goat skins, alongside prefabricated wagon parts; perhaps the skins in this case were intended to be used to patch a canopy protecting their cargo (cf. *RIB* II.4.2443.3, a hide stretcher from Vindolanda).

The distinctive hobnailed footwear of the soldier of the first and second century also required attention prior to an extended march. Experimentation has shown that the hobnails may have rapidly worn down during an extended march, especially over metalled roads – during re-enactment marches in 1984 a boot lost all of its studs over ten days (Atkinson and Morgan 1987:100, cf. Himmler 2011:205). This rate of attrition may have been reduced if soldiers marched alongside rather than on gravelled roads (which primarily enabled the easier passage of wagons; 2011b:202) but would have remained high nonetheless. The replacement of these was a continuous drain on the private funds of the soldiers, who referred to the donative they received as the *clavarium*, or 'hob-nail money' (Atkinson and Morgan 1987:101; Tacitus *Histories* 3.50; a Period V room at Vindolanda has been identified as a cobbler's shop and contained a hobnail hammer: **III.4.11**). The fearsome and distinctive noise made by the hobnailed boot was a central component of the presentation of military identity, and it is clear

that much work and cost was required to sustain this. When this supply was challenged, soldiers went to great lengths to amend this.

Within the context of the auxiliary fort, which had fewer skilled craftsmen to draw upon than the larger legionary fortresses, the demands on the leatherworker would be focused towards a commensurately smaller set of needs. Perhaps the most significant of these was the repair and replacement of footwear, which had a limited lifespan when in heavy use (1985:65). The extensive collection of footwear from Vindolanda's early wooden forts shows shoes were worn for as long as possible; nail heads were worn down to the shafts, soles were worn smooth, and some were crudely repaired even after they had effectively disintegrated (Driel-Murray 1993:33, *pl*. VII). This pattern of heavy use and repair continued at Vindolanda despite the presence of shoemakers; the off-cuts which are indicative of the initial process of shoemaking are present throughout the fort, and contemporary fashions in footwear were also followed, enabling relative chronologies to be established (Driel-Murray 2002:116-7). It seems the problem lay in the supply of a suitable raw material sufficient to shoe everybody within the forts of the northern frontier in the late first and earlier second century (Driel-Murray 1993b:33-4; 2002:110). A reliance on long distance supply across an unreliable network of roads, from supply centres as far away as Catterick in North Yorkshire (*Cataractonium*; see **II.20**) may have lead to periods of want over the winter months; it appears that forts on the Rhine frontier, supplied by riverine transport, did not encounter similar shortages and were able to replace their footwear more regularly (Driel-Murray 1993:34). At Vindolanda at least, status within the community may have been displayed through privileged access to shoemakers; those with the means could commission their own, whilst poorer members of the military community (lower ranking soldiers, and, presumably, non-military males) made do with what they had.

5.4.5. *Cloth and clothing.*

If the evidence for leather is slight, the evidence for textiles is sparser still in Roman Britain, although a few sites have been extremely productive - Vindolanda providing a particularly large and closely-dated assemblage (Wild 2002:12). As a mundane set of processes, textile production received little attention from aristocratic, male authors. Nonetheless the production of textiles – for use as clothing primarily, then for other sundry purposes – was a major activity within the Roman world, and hence also in the context of everyday life in the fort community (Wild 1976, 2002; Appendix **III.5**).

Textile production in Britain involved the working of wool and linen, processes unlikely to have changed significantly from the Late Iron Age into the Roman period. Sheep (smaller and wirier than modern breeds) were ubiquitous across Britain, and over the Roman period became utilised primarily for their wool over their meat (Wild 2002:4). They were plucked (or shorn with iron shears) in the spring or early summer, the wool then cleaned and combed if necessary (Wild 1976:168; wool could also be spun from the fleece, 2002:5. Curry comb at Birdoswald: **III.5.28**). The purchase of 38 pounds of wool at Vindolanda suggests that it was also imported by fort communities in this form (**II.8**). To make linen fibres, flax stems were uprooted in the late summer, bundled together and soaked in stagnant water for three weeks, then broken down into separate strands (Wild 1976:169). It is not clear what ratio of wool to flax was utilised in Britain; the latter does not survive well archaeologically (Wild 2002:27). If either of these materials were to be dyed, it took place at this stage, prior to spinning (2002:7). Patterned fabrics could also be produced by mixing wool with different natural pigments (i.e. white and brown; Wild 2002:8).

Once workable fibres had been produced, these were then converted into yarn by spinning, an extremely time consuming but skilled process that in the Roman world was considered the domain of women (1976:169, 2002:9; cf. Croom 2011:9, 58-60: men may have been able to spin flax; Pliny *Natural Histories* 19.2.8). Spinning was carried out with a drop spindle - a narrow rod, usually of wood or bone, about eight inches long, with a weight at one end (the spindle whorl; South Shields: **III.5.9-10**, Hardknott: **III.5.15**, Wallsend: **III.5.24**, Birdoswald: **III.5.26-7**, Carlisle: **III.5.55, 57-9**). While holding the fibres in one hand with a distaff (a forked stick), a few were drawn out, twisted, and tied around the spindle. This was then spun clockwise ('Z'-spun) and lowered, creating a yarn which was drawn out by the weight of the whorl; an anti-clockwise or 'S-spun' yarn could also be produced to add strength to a garment (1976:170). The wool transported to Vindolanda may therefore have been spun by woman within the fort community; perhaps by the wives of prefects or centurions, or by female servants and other lower-status women at the site. Indeed, the presence of artefacts associated with spinning has been accepted (albeit problematically) as indicative of the presence of women at a Roman site (cf. Allison 2008, Reuter 2008).

After a yarn had been created, it was woven into a finished item. Weaving could be carried out by men or women (Wild 2002:29; but cf. Vegetius 1.7). Unfortunately, no Roman loom survives, although the ones used on the frontier zone were probably warp-weighted vertical

looms (1976:170-1; *fig.* 5.22. See **III.5.11-14**). Roman textiles have survived in waterlogged contexts, giving an indication of the appearance and functionality of the finished garments (e.g. Corbridge: Wild 1988, Vindolanda: Wild 1993, 2002). Regional differentiation can be discerned in weaving methodology (2002:16). A range of decorative weaving techniques, including the 'Falkirk tartan', were used at Vindolanda to produce a range of clothing of striking appearance (2002:17), and as noted above, colourful fabrics could be shown off through openwork leather shoes. They may also, as discussed in chapter three, have been represented in painted depictions of dress on tombstones and other monuments. The significance and prevalence of particular colours within the fort community remains beyond our reach in the absence of further evidence, however.
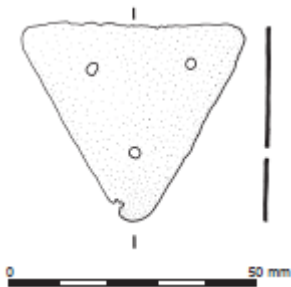
Figure 5.22. Weaving tablet from Carlisle, Period 3A *principia* (after Howard-Davis 2009:735, *fig.* 391; **III.5.60**).
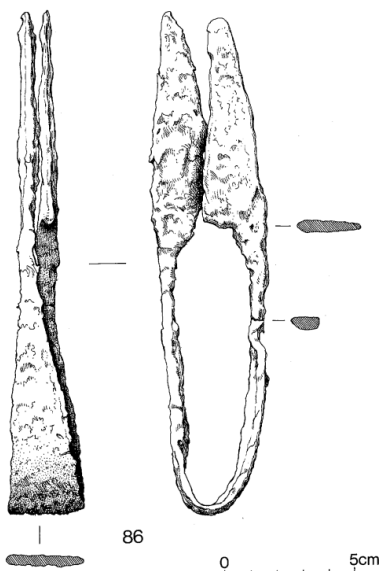
Figure 5.23. Shears for cutting wool or textiles, Corbridge Hoard (after Allason-Jones and Bishop 1988:53, *fig.* 74).

Many items at Vindolanda show signs of rough repair, perhaps by the soldiers themselves (2002:17). The make-do-and-mend approach applied to armour and footwear thus extended to clothing as well, indicating that even basic clothing was a valuable resource. Ancient clothing was custom made on the loom, with very little tailoring required even for sleeved tunics (2002:22). Some items could also serve as soft furnishings however (e.g. cloaks also used as blankets; Goldman 1994:232), and once worn out could be cut down into smaller items (e.g. T545 at Vindolanda, a cloak; Wild 2002:23; *fig.* 5.22). The distinctive military tunic would therefore have been custom made in that form. The Vindolanda tablets provide an indication of the range of clothing worn within the fort community (see *tab.* 5.1). As Wild noted, it is striking that this range reflects the cosmopolitan dress of Rome as much as the clothing of the western Empire (2002:27).

Textile name	Description	No. of occurences	*Tab. Vindol.* II, III
Synthesis	Matched tunic and cloak	1	196
Cenatoria/Cubitoria	Formal attire	1	196
Abolla/Laena	Formal cloak	2/1	195, 196
Subucula	Vest	2	196
Subligar/lumbare	Underpants	2/10	346, 596
Tunica	Tunic	17	195, 196, 207, 255
Stica	Shirt	1	181
Sagum/sagacia	Cloak	10/1	184, 192, 207, 255, 596, 607
Palliolum	Cloak/blanket	24	207, 255
Sagum infibulatorium	Cloak	6	597
Sagum corticium	Cloak of bark(?)	15	597
Paenula	Hooded cloak	4	196
Sudarium	Towel/neckerchief	1	184, 187
Capitulare	Headband	5	597
Udones	Leggings/socks	2	346

Table 5.1. Garments referenced in Vindolanda tablets (after Wild 2002:25).

A soldier might expect to receive a new outfit on an annual basis, consisting of a tunic and cloak, but this supply may have been unreliable and other clothing had to be acquired individually (2002:31). Producing new items was labour and resource intensive; an experimental reproduction, woven on a warp-weighted loom, of a Roman Iron Age woollen cloak weighing 1.36kg required 292 hours of work (Wild 1994, 2002:31-2). A single tunic may take five to six week's work to produce (not counting the significant time required for spinning; Wild 2002:31). Although the labour requirement was less intensive than for armour (see above), clothing was a ubiquitous requirement across the fort community. It is therefore unsurprising that the supply of whole garments (as related in *tab.* 5.1) was a

significant aspect of trade and correspondence at Vindolanda (cf. Gavo, the Period II supplier of Flavius Genialis; *Tab. Vindol.* II 192, 207, 218, and the socks, sandals and underwear sent 'from Sattua', **II.22**; cf. Birley 1997b:277-8).

Textile working remains an extremely difficult activity to reconstruct within a Roman context, due to the organic nature of the tools and raw materials and its limited impact on the environment compared to construction or metalworking. It is a key example of a process vital to military life that survives primarily within textual sources (such as the Vindolanda tablets). This archaeological invisibility especially hinders our understanding of the potential involvement of women in craft activities at such sites (although the sexing of tools such as spindles and loom weights is also problematic: cf. Reuter 2008). An approach that situates this craft within the fort community also acknowledges the role women had in sustaining a communal military identity, even if the social context of this is lost.   The extent to which gender roles defined relationships with craft tools remains a matter of speculation, but this raises interesting questions with regards to the role of craft activity within martial identities. If the use of 'housewife' sewing kits can be normalised within contemporary military activities, then should textile working be viewed as an appropriately masculine activity as well?   The distinction between production and repair may be important here.   Basic maintenance could be carried out by the soldier (or his slave) on an *ad hoc* basis; the production of clothing required a dedicated workforce.   The military workforce at Vindolanda seen in the workshops does not seem to have applied itself to textile working, supporting the idea that it was seen as inappropriate work for military males (cf. Phang 2005; **2.2.2**).

5.4.6. Craftsmen (and women) within the fort: status and identity.

> 'Metto (?) to his Advectus (?) very many greetings. I have sent you wooden materials through the agency of Saco: hubs, number, 34; axles for carts, number, 38; therein an axle turned on the lathe, number, 1; spokes, number, 300; planks (?) for a bed, number, 26; seats, number, 8 (?); knots (?), number, 2 (?); boards (?), number, 20+; ..., number, 29; benches (?), number, 6; I have sent you goat-skins, number, 6.
> I pray that you are in good health, brother.'
>
> (*Tab. Vindol.* II 309 = **II.17**. A shipment of ready-made wagon components to Vindolanda.)

The self-sufficiency the Roman military required as either a 'total' or 'greedy' institution could only extend so far. Although the *auxilia* could draw from its ranks and dependants substantial workforces and skilled *immunes*, it was also reliant on the broader provincial economy to meet local shortfalls in skills and resources. Metto's shipment shows that even if buildings were not pre-fabricated components, items of this kind were still required by the fort community. Wagons were essential to the supply of foodstuffs (see below), and the roads of the northern frontier could not always be relied upon to provide safe passage (cf. **II.20**). The production of these components required specialist skills and access to the appropriate forms of wood, which may be beyond either the technical ability or the environmental resources of forts such as Vindolanda. These economic relationships crossed the boundaries of the fort community, although they did operate in respect of Roman customs and emphasised the forts' dependence upon Roman infrastructure (in particular the road and riverine transport networks and literate communications). It is worth noting that Metto and Advectus are probably civilians attached to the military and thus part of the fort community (Bowman and Thomas 1994). Their role in supply infrastructure, maintaining vehicles that could be used to transport goods, would be an indication of the military subcontracting this role. As discussed above (**3.3.6**), in Period II at Vindolanda the vehicles of natives (*de carris Brittonum*) were used to transport grain to the site (**II.33**). The manufacture of carts within the fort community may have enabled the adminstrators to sever these particular ties to the indigenous populations (cf. **II.38**). British vehicle designs had meanwhile been adapted to changes in demands and status as well, as light chariots were displaced by the wagons necessary to transport goods in bulk. Components such as terrets became more ostentatious, incorporating British and Roman artistic techniques (including brass and enamel decoration), and marking these vehicles – and those who used them – as having a distinct intermediary role between the military community and native workers (Lewis 2015; *pers. comm.* Melanie Giles; cf. **5.6.-**). It would be interesting to know if the wagons discussed above reflected these native adjustments. In either case, the 'greedy institution' of the military saw its influence extend to these developments in infrastructure.

Meanwhile, labour on the part of the garrison gave them something to do during the long periods of relative peace spent within the fort. Along with sustaining the supply chain, 'busy work' around the fort, such as secondment to the workshops and other construction projects, kept soldiers occupied and disciplined, engaging in skilled, and often time consuming, work (Bishop 1999b:113). The parallels to castrametation, as discussed in the previous chapter, are

clear; indeed, it has been argued that the primary role of permanent forts was to maintain military discipline during periods outside of campaigning (1999b:117).

The study of the social status of military craftsmen in the Roman world has been under-theorised in comparison to soldiers, with significant studies focused primarily on the civilian labourer (e.g. Burford 1972, Ulrich 2007). As with the common soldiers, craftsmen in the civilian world are most often discussed from the perspective of the elite; this has the effect of reducing skilled craftsmen to a marginalised, stigmatised underclass (cf. Ecclestone 2007, Flohr 2009). This should not however be taken to mean that craftsmen themselves were necessarily ambivalent about their role, nor that their work was considered distasteful and low class within the context of the military community. Skilled craftsmen such as the blacksmiths could oversee hundreds of soldiers at a time, even if their work was not independent of official patronage. More to the point, workshops were a constant feature of Roman military life, even when lacking a dedicated building. If industrial labour was not as prestigious as combat from the perspective of the soldier, it was surely as central to their way of life within the fort community as training in the use of weapons was. It was also more inclusive, as the multiple processes involved drew on far broader subsections of the fort community than campaigning did. Metal- and textile-working were enormously time-consuming and relied upon civilian participation, including the families and slaves of the soldiers, who could legitimise their role within the community through such actions. Industrial activity also connected the fort community into broader trade networks, and – for better or worse - impacted upon the local landscape in such a way that native populations were also affected.

5.5.1. *Part three. Sustaining the soldier: health and diet in the fort community.*

The third grouping of artefacts discussed here are those relating to medical and dietary practice. These activities played a comparably important role in the lives of all members of the Roman military community (cf. Allason-Jones 2011, Croom 2011), but were especially significant to the creation and maintenance of the body of the soldier. The active and dangerous lifestyle of auxiliary soldiers, and the threat they posed if disaffected, meant it was especially important that they enjoy a healthy lifestyle and a secure, adequate diet. To this end, the Roman military included trained medical professionals (**5.5.2**), architectural elements including well-maintained latrines, bath-houses and (in some cases) hospitals that allowed an acceptable level of hygiene and well-being to be sustained (**4.4.8-10**), and a staple diet that could be secured on site ensuring forts could go months between deliveries (**5.5.4**, cf. **4.4.5**). However, both of these arenas (healthcare and diet) allowed for a degree of flexibility, as soldiers and other members of the fort community adopted or retained retained distinctive tastes and utilised a range of acquisition practices. In this section, I analyse the role of these activities in defining the boundaries between institutions within the fort community, it is necessary to acknowledge the importance of these items within the establishment, preservation and public display of identity by individuals within the fort community, by soldiers and civilians alike.

5.5.2. *Medical practice.*

> 'Remainder, present 296
>
> Including centurion 1
>
> From these:
>
> Sick 15
>
> Wounded 6
>
> Suffering from inflammation of the eyes 10
>
> Total of these 31'
>
> (Strength report of the Tungrian regiment, Vindolanda: *Tab. Vindol.* II 154.19-25; **II.1**).

Whether legionary or auxiliary, the individual Roman soldier represented a significant investment of resources. Ensuring the soldiers remained fit and healthy was essential to the

maintenance of a military post, and was done by ensuring three basic provisions; healthcare and medicine, hygiene, and a good diet (cf. Turner-Wilson 2007). The latter two are implicitly bound to domestic and leisure arrangements and are discussed further below; however, the provision of medical care was characteristic of the Roman military as an institution and in its performance as a military force. As such it has be considered as a privilege of the military institution, one that helped to mitigate the threat of injury implicit within the military lifestyle and thus encouraged men to enlist (Scarborough 1968, Goldsworthy 2003:100-101; for battlefield medicine see **5.3.2**).

All members of the military community could expect the support of medics experienced in the treatment of physical injuries and ailments (the evidence for medical practice on the northern frontier has been summarised by Allason-Jones, 1999b). These medics utilised a wide range of surgical instruments and pharmacological treatments (Baker 2001, 2002b, Jackson 1988, 1995, 2011; see **Appendix III.6**). The distinctive kits of medical tools found around the Roman Empire are testament to the widespread availability of surgical expertise (Jackson 2011:252), and it was long believed that such items and knowledge first came to Britain with the Romans (cf. Jackson 1988:137). However, the discovery of a Romano-British medical kit in a conquest-period grave at Stanway (Crummy 2002, Crummy *et al* 2007) suggests that medical care in Late Iron Age Britain was more sophisticated than was previously acknowledged. Redfern's osteoarchaeological study of Roman and Iron Age burials in Dorset revealed consistently high standards in the treatment of fractures across both periods (2009a). The treatment of trauma was not unknown to Iron Age populations and may not have been regarded as a specific benefit of military membership (cf. Redfern 2003:162). It should be noted that many of the peacetime activities discussed above, from military training to construction work, carried a significant risk of injury, as well as long term muscular-skeletal stress, ensuring that some surgical expertise was a requisite at all military sites (cf. McCarthy 2013:42).

Figure 5.24. 'To the spirits of the departed and to Anicius Ingenuus, *Medicus Ordinarius*, twenty five years old.' (*RIB* 1618; after Roman-Britain.org 2011).

The presence of medical staff with an official status within auxiliary units is not made explicit in historical sources, but there are a few examples from the northern frontier. Only one is known by name from Hadrian's Wall, the *medicus ordinarius* Anicius Ingenuus of the First Cohort of Tungrians at Housesteads (see *fig.* 5.24). Despite dying relatively young, he had been regarded as a qualified doctor with a military rank equivalent to centurion (Allason-Jones 1999b, Davies 1969). The Vindolanda tablets provide evidence that this system was in place at that fort; *Tab. Vindol.* II 155 directly refers to a *valetudinaria,* whilst another (**II.2**) names a soldier, Marcus as a *medicus*, or orderly (for the hospital, see **4.4.8**). Further south, an altar was dedicated to Aesculapius and Salus at Binchester in Country Durham by M. Aurelius [Abr]ocomas, a doctor attached to the Cavalry Regiment of Vettonians there (*RIB* 1072; Allason-Jones 1999b:142). However, the evidence for formal medical staff on the northern frontier as a whole is slight; there are no references to specialist surgeons, wound dressers, or hospital staff (Allason-Jones 1999b:134). Other forts contain buildings which have been identified as hospitals, such as Housesteads, Wallsend and Benwell, but this has been based on their plans and location within the fort rather than on the basis of small finds (1999b:134; cf. Baker 2002b; **4.4.8**). Where the sick and injured were treated remains a topic for investigation; as discussed above it must be assumed that many remained within their quarters.

The densely packed, quasi-urban architecture of the fort community will have contributed to the development of medical conditions, so illness and disease will have been regular occurrences for fort community members. **II.1**, a strength report of the Tungrian regiment during Period II at Vindolanda, records thirty-one soldiers unfit for duty due to sickness (15), injury (6), and inflammation of the eye (10), suggesting that the need for diagnosis and treatment of disease and injury was recognised for the *auxilia* as well as the legions (Baker 2002b:69). Eye conditions of various kinds were especially problematic, as indicated by the ten soldiers incapacitated by these (perhaps conjunctivitis; Allason-Jones 1993b:137). There could be many causes for such diseases spreading, including the rapid spread of infection in the cramped *contubernia*, unhygienic disposal of human waste though inefficient drainage in the latrines and bath house, or a lack of dietary vitamin A and C (Boon 1983:10-12, Allason-Jones 1999b:138, 2005a:312; cf. Fitzpatrick 1991). These issues will have affected non-combatants as well as soldiers, perhaps more so if they did not have access to as varied a diet or adequate cleaning facilities (although women and children could access the bath-house in the legionary fortress at Caerleon; Zienkiewicz 1986). The lack of skeletal evidence for this period makes demographic analysis problematic, although tombstones can reveal some instances of youthful mortality which are to be expected in a premodern context (e.g. Fabia Honorata, infant daughter of the commanding officer of Chesters (*RIB* 1482), or the fifteen-year old sister of Aurelia S…illa at Great Chesters (*RIB* 1745; cf. *RIB* 594, 961, 1064, 1483, 1828, 1919, 2182).

The duty of military care if left to regular soldiers and other inhabitants of the fort community may have served to bring the community together in a way that segregation through hospitalisation could not. It has been argued that at the *valetudinarium* of Novae, patients were fed by their *contubernales*, maintaining their standard dietary practice (Dyczek 2002:688, Allason-Jones 2008:39). This would presumably also be the case if they were confined to quarters, or kept in separate accommodation within the *vicus* or the fort annexe (Allason Jones 1999b:136; cf. Caesar, *Civil War* 3.78.2, *African War* 21). Such a practice would strengthen social bonds, but risk exposing the sick and healthy to further infection. I believe the fact that wounded and sick soldiers could expect to be cared for in some way – and, crucially, be counted out of work duties – also helped strengthen their commitment to the military, and the appeal of the institution to outsiders, for whom such forced unemployment could have significantly more deleterious effects.

Figure 5.25. *Collyrium* stamp, Tranent ('Lucius Vallatinus' mild eye-salve'; after Scran 2005).

For eye diseases and other less disabling ailments, medical treatment may have been provided by itinerant specialists rather than permanent members of the unit (cf. Baker 2011, Jackson 2011). The standard treatment across much of the Roman Empire for eye ailments, from myopia to trachoma, were ointments sold and distributed in the form of sticks or cakes known as *collyria*; these were stamped with the names and function of the ointment, as well as the inventor or manufacturer (Boon 1983, Baker 2011). Only a few stamps have been found in northern Britain, at Watercrook in Cumbria and Tranent in the Lothian region (Allason-Jones 1999b:137; cf. *RIB* 2446; *fig.* 5.25). They have not yet been found in association with auxiliary units on Hadrian's Wall, despite their prevalence in Gallia Belgica and southern Britain (Raftery 1994:218, Baker 2011:163). That eye problems were viewed as distinct from general sickness by the Tungrians at Vindolanda may nonetheless indicate culturally prescribed treatment for these conditions (2011:167), possibly involving the acquisition of appropriate *collyria* from travelling oculists, or those operating in market towns (Jackson 2011:261; cf. *RIB* II.4.2446.1-31). A list of items dating to Period III at Vindolanda may denote the raw materials required to make an eye salve, suggesting that even if the stamps were not used, the medicines themselves may have been produced at the fort (**II.26**; cf. Bowman and Thomas 2003:44). The same list also cites 'linen soaked in honey', which would make an appropriate bandage for an open wound, the honey acting as an antibiotic (cf. Kwakman *et al* 2010). This might imply that a single medical expert was responsible for the application of both.

Other potential forms of medicine used within fort communities may be seen in botanical remains. Opium poppy seeds, found at Carlisle and Ribchester, may have been used in preparation as a narcotic (cf. Celsus *De Medicina* 5.25.3), but may equally have served as flavouring for food (Allason-Jones 1999b:139, Buxton and Howard-Davis 2000:356, 359). Along with Henbane and White Mandrake, this opium preparation would be the only

anaesthetic available to ancient surgeons (Allason-Jones 1999b:139, Jackson 1988:81; undiluted wine was another option). Other native plants that may have been utilised include plantains (used to treat pulmonary tuberculosis, haemorrhage and dysentery) and St. John's Wort (for bladder stones; Allason-Jones 1999b:139; cf. Fraser 1984). Dock, or *ex radice britanica,* was recognised on the Rhine frontier as a cure for diseases relating to Vitamin C deficiency – although the label predates the conquest of Britain (Fitzpatrick 1991, Pliny *Natural History* 25.6.20-1). Puff-ball fungi and mosses, both found in quantity at Vindolanda, may have been used as styptics and wound dressings (Seaward 1993:98-9).

Writing tablets provide some indication of those responsible for preparing medication. At Carlisle, a writing tablet records the presence of one *albano seplasario*, interpreted by Tomlin as Albanus the pharmacist or 'preparer of unguents' (1991a:300, no. 24, note 35). It is not clear whether he was a member of the garrison or a private merchant, but a further example from Vindolanda, Vitalis, may suggest the former, as he is listed in an account alongside other officers (**II.25**). If *se*[*s*]*plasariae* were soldiers of the garrison, they may still not have had exclusive access to pharmacological knowledge or experience. A letter from a woman, Paterna, to Sulpicia Lepidina refers to a delivery of two remedies, one for a fever (**II.16**). It is not clear whether Paterna produced the remedies herself or acquired them from a chemist (Allason-Jones 1999b:140), but she demonstrates the ability of women within the fort community, outside of the formal military hierarchy, to both access and provide medical expertise (cf. **II.35**).

The discussion has addressed medical responses to ill health and disease, but this approach may not have been accepted by all parties. With limited control over the active ingredients within medication, the products of pharmacists probably had primarily a placebo effect. This is not to say that they were not effective (cf. Prioreschi 1998:762) but that the gap between ancient pharmacology and religion will have been less significant than in a modern context. The role of ritual and apotropaic amulets should be acknowledged under this category (cf. Allason-Jones 1999b:142, Baker 2000:50). Although the north of Britain lacks an equivalent to the major healing shrines of the south at Bath (Sulis Minerva) and Lydney (Nodens), concerns over health were reflected through traditional religious forms of expression, such as the deposition of votive offerings at sacred sites, and the erection of altars to deities connected to healing (Ferris 1999).

Whether the treatments were effective or not, what mattered is that they were actively selected, and were part of a distinctive military package that members of the military community were able to avail themselves of. Even itinerate traders will have required paying, which was most easily done by occupants of relatively cash-rich military sites. Gaining access to such care, and the economic means to do so, were an incentive to military life. As discussed above (**5.3.2**), medical treatment for wounds and injuries enabled soldiers (and presumably their slaves and family members) to recover, and bear the scars of their experience – visible reminders of their debt to the institution, to their comrades, or to the fort community.

This section has shown that medical treatment, essential at a practical level within any community and especially prioritised within the Roman military, was certainly practiced on the Northern Frontier of Britain, in a wide variety of forms. However, it was not the sole preserve of approved specialists within the military hierarchy; women and itinerate traders also played a crucial role in providing medical treatments and expertise. Although evidence for these interactions is limited, they indicate a crossing of boundaries within the military community that the Roman military was able to accept. Its members could call upon familial support or do business with others outside the military community, both activities which fell beyond the demands of the 'greedy' institution. These patterns of interaction are also evident in the supply of clothing (as discussed above), and also in the supply of more conventional luxuries. The social role of food and drink in defining and crossing boundaries within the fort community is now addressed.

5.5.3. *Food and drink in the fort communities of Roman Britain.*

In this section, the 'foodways' of the Roman military communities are considered in the context of the northern frontier. This is an area of research that has attracted much scholarly attention, due to the importance of this resource to the Roman military and the subsequent economic impact upon areas in which it was based (Davies 1971, King 1984, 1999a, 1999b, Pearce 2002, Stallibrass and Thomas 2008a). The study of food has been problematic within archaeology; organic materials rarely survive outside of specific contexts (for instance, burnt or waterlogged), and textual sources often carried elite, non-representative biases (cf. Stallibrass and Thomas 2008b:148-9; archaeological material relating to the production, distribution and processing of food can be found in Appendix **III.7**). A complete diet is therefore beyond the ability of archaeologists to reconstruct, although an understanding of the

physical processes involved in military and industrial activities provides a basis for the nutritional requirements of the fort community (Roth 1999:7-8, McCarthy 2013:45-7). The evidence for consumption in this region is certainly rich enough to warrant further analysis.

Iron Age Britons enjoyed a varied diet, but the Roman conquest (following generations of trade) brought with it a wider range of new crops, foodstuffs and improved livestock. Some of these new foods, such as turnips and cabbages, could be transported to Britain and grown in market gardens. Those that could not were imported in barrels, amphorae and other containers (cf. Alcock 2001). It is within a rich context of international trade that the diet of the Roman soldier should be considered, and the official and unofficial supply of different forms of foodstuff form the first section of this discussion. The discussion then turns to the social aspects of production, processing, and consumption of food by members of the fort community, drawing upon the symbolic value of food as well as its substance (cf. Garnsey 1999, Pearce 2002, Twiss 2007a, 2007b).

5.5.4. *The military diet.*

> 'Food, then, stands as a pointer to distinctions of status, power and wealth, of group-separateness and –belonging, and of cultural differences in general. In saying this, we have already made the transition from food as food, as a biological necessity, to its non-food uses' (Garnsey 1999:6-7).

> '... bruised beans, two *modii*, chickens, twenty, a hundred apples, if you can find nice ones, a hundred or two hundred eggs, if they are for sale there at a fair price. ... 8 *sextarii* of fish-sauce ... a *modius* of olives ... (Back) To ... slave (?) of Verecundus.'

> (*Tab. Vindol.* II 302)

Food and drink were a paramount concern in the ancient world. This was not simply because of their relative scarcity and the effort required to produce them in a pre-industrial period, but also because of the multiple opportunities they offered to differentiate identity within a community, as indicated by Garnsey above. These ranged from privileged access to distinctive foodstuffs reflecting high social status, to ethnic tastes for particular foods or methods of consumption, to the display of wealth in the context of commensal feasting, to the food security that came with institutional identity and membership of the Roman military and indicated by *Tab. Vindol.* II 302 above (cf. Garnsey 1999:1-6, Pearce 2002:932). The

Roman military diet has been addressed in a number of studies, of which Davies' survey is the key text (1971). The reconstruction of Roman meals, carried out with authentic ingredients and equipment, has also helped to demonstrate the possibilities available to soldiers (Junkelmann 1997, Grant 1999, Dalby and Grainger 2000; cf. Reece 1988:40). In this section, I utilise these sources to analyse the varying role of diet in delineating identities within the fort community, starting with its implication in the identity of the Roman military male.

The life of a soldier on campaign had a different character than during times of peace. This can be seen in reports of the luxuries that were prohibited to soldiers by the late second century usurper Pescennius Niger, such as silver utensils, wine, and pastry chefs, to the resentment of his men (*SHA Pescennius Niger* 10.1-4). The expected martial character of troops on campaign can be seen in the behaviour of emperors and commanders seeking to set an example for their men to emulate; they were expected to lead in unpleasant duties off the battlefield as much as play a prominent role when on it (cf. Holmes 2004:341-2). Hadrian adhered to the standard military rations of bacon, cheese, and *posca* (vinegar and water – *SHA Hadrian* 10.4, 10.2, cf. Davies 1971:125, Fuentes 1991:67), rather than maintain the typical diet of an emperor. The emperor Caracalla marched with his men, even grinding and baking his own bread, a step that Pescennius also took to justify his strict disciplining of his troops (Herodian *Hist.* 4.7.4-6, *SHA Pescennius Niger* 11.1-3). Restricting a soldier's diet to the core rations of biscuit, preserved meat, and sour wine would have had the principal outcome of lessening the load on each individual soldier, and thus increasing the speed of the march, but they also represent a denial of choice that was characteristic of the campaign (cf. Fuentes 1991:78; salt, in bread or cheese, was also essential to countering dehydration; Atkinson and Morgan 1987:101-2).

These examples help to indicate the significance of food in demonstrating a martial identity in the Roman world. The privations of the campaign in particular enforced an idealised yet strict lifestyle based on austerity, a rejection of unnecessary luxury that was reflected throughout the military hierarchy. This involved a diet that was basic, but which was nonetheless secure. There are gaps in the historical record that reflect the biases in our sources (such as the diet of the camp followers, who probably ate roughly the same food as the soldiers; Roth 1999:17), but overall the trend emerges of a practice of consumption recognisably attributable to the Roman military.

However, the question arises of how this dietary practice was reflected in the long-term contexts of the permanent forts and their civilian settlements. What effect did entering an environment with an institutionally set core dietary practice have on new recruits, whether from distant homelands or as local reinforcements? What variations could soldiers bring into their diet, and to what extent could they exploit their status in the pursuit of these? And to what degree might a change in diet affect aspects of identity such as ethnicity (cf. Kreuz 1999:80)? Without the need to restrict the weight of carried food and dining paraphernalia, individuals within the fort community had greater freedom of choice over their dietary practices – suggesting that this is a profitable avenue of investigation with regards to the expression of identity through consumption. I begin my analysis with a summary of dining patterns within the military community, before moving on to analysis of specific forms of foodstuff.

The principle diet of the soldiers was provided through two core rations; *frumentum*, or grain, and *cibaria,* other foodstuffs (Roth 1999: 26). The cost of these was deducted (as with clothing and weapons) from their wages, and administered by the clerks of the garrison (Davies 1971:124, 136, Whittaker 2004:105; cf. *RMR* 78; see **3.2.2**). Roman soldiers had two meals a day, with a simple breakfast of porridge, bread or leftovers in the morning and a more elaborate evening meal including other rationed foodstuffs such as olive oil, bacon, and wine, with some variations depending on the local circumstances of the garrison and their cultural preferences (Junkelmann 1997:102, Allason-Jones 2008a:41). This provided a basic but varied diet that should have met all nutritional needs (cf. Davies 1971:137, Boon 1983:10-12, Garnsey 1999).

However, food could also be obtained by soldiers from friends or family (Davies 1971:135). They were able to spend their own money on supplementing their diet with purchases made through local entrepreneurs (*negotiatores*); those with slaves and/or families supported these from their income, and other members of the fort community, such as traders and craftsmen, could benefit from the capital the soldiers provided (Whittaker 2004:105). If they found themselves short on funds, then loans could be made from fellow soldiers, which could reliably be honoured when the borrower was paid; this may have helped to address the shortfall in income compared to the better-paid legionaries (Speidel 1996:80, Evans 2011:40, cf. *RMR* 75; see *tab.* **I.2**). As with medicine, diet was an arena of practice that crossed social and institutional boundaries within the fort community. The dependants of soldiers (and

traders who provided commodities) benefitted from the wealth of the soldiers; in turn, the soldiers were able to fulfil obligations placed upon them by their peers and by their families (including slaves).

Differential access to food resources nonetheless existed within the military community, based upon degrees of status. An example of the choices available to the *praetorium* can be seen in *Tab. Vindol.* II 302, quoted above - a shopping list of items to be acquired by a slave of the prefect's household. This list contains food items acquired in a single location (presumably a local market), ranging from the locally sourced staples of bruised beans, eggs, and apples, to imported fish sauce and olives (Whittaker 2004:98, Bowman and Thomas 2003). The variety of food here connected the prefect to a host of different identity networks, including the household of the *praetorium*, the traders of the *vicus*, and the broader trade economy of the Roman Empire – but also demonstrated his ability to acquire foodstuffs in bulk appropriate to a particular diet, as well as the appropriate serving vessels (cf. *Tab. Vindol.* II.194 = **II.10**). The mix of Mediterranean and northern European elements therefore makes this an appropriate example for further debate. The Vindolanda tablets provide many examples of foodstuffs supplied to this fort, and the contexts in which they may have been consumed (although the majority are biased towards the affairs of the prefect's household, and many concern unusual circumstances such as festivals; Stallibrass and Thomas 2008b:149).

My analysis now turns to the significance of the different types of foodstuff represented within the fort communities of the northern frontier. The methodology I follow here was of regarding food as both 'substance' and 'symbol' was established by Garnsey (1999), and subsequently applied by Pearce to the fort community of Vindolanda (2002). In the following sections, the core food groups of the diet of the fort community are addressed along with evidence from case studies. Pearce's categorisation of foodstuffs into 'cereals', 'meat', 'wine and beer', 'pulses, vegetables and fruits', and 'herbs and spices' is utilised here (1999:934-9). My analysis then builds upon this by addressing practices of consumption, identifying commensal dining events within the architecture of the fort community.

5.5.5. Cereals.

Grain formed the dietary staple for the ancient world, providing roughly 70-75% of the caloric content of the Graeco-Roman diet (Foxhall and Forbes 1982:74; cf. Garnsey 1999:19, Roth 1999:18) – the remainder being made up of other foodstuffs discussed below. The cereal of choice for the Roman military was wheat, which was especially suitably for the wholemeal bread (*panis militaris*) central to the soldier's diet (Davies 1971:125-6). It could also be consumed as gruel, porridge, hard tack (*bucellatum*), or as pasta, although the evidence for the latter in the north is slight (only a possible reference in *Tab. Vindol.* III 592). In Britain, the principle cereal crops were emmer, spelt, bread wheat and barley, with oats and rye also in limited use (Thomas and Stallibrass 2008:4).

Grain was issued to all soldiers as a ration (*frumentum*), allocated at the level of the *contubernium* and its value deducted from their wages (Roth 1999:21, Whittaker 2004:105). Cavalrymen also received an allowance of barley to feed their horses (cf. *RMR* 79-81). A writing tablet from Carlisle provides details of the distribution of three days' worth of wheat and barley among the members of the *quingenary ala* based at the fort there; each *turma* received its allocation collectively, and it may be assumed that *contubernia* received theirs *en masse* as well (*Tab. Lugoval.* 1, Tomlin 1998:44-7; cf. *Tab. Vindol.* II 180, 183, 186, 207, 255). This distribution of grain was apparently overseen by centurions, decurions or *optiones* (Pearce 2002:933; a bronze measuring vessel from the fort of Carvoran (*Magnis*) may have been used for this purpose; *RIB* II.2.2415.56). Once this grain had been received by the soldiers, it was then processed into flour using stone querns, of which each *contubernia* had one (Allason-Jones 2008a:41; cf. *RIB* II.4.2449.1-19). As grain was a staple across the Roman world, most auxiliary recruits would be familiar with the process of grinding corn, especially if they had come from rural communities. This was monotonous, low status work, but was mitigated in this context by acceptance of the production of *pans militaris* as part of an appropriate military *habitus* (Haynes 2013:179). Haynes' argument that auxiliary recruits would not have previously milled their own grain may overstate elite biases in literature, as the lived experience of rural youths will have involved more pragmatic responses to shortages of labour. Phang has however argued that such tasks may have fallen to *calones*, allowing their masters to avoid this demeaning role (2005:212-3). Cavalrymen, who had greater access to servants may therefore have used this exemption to emphasise their own

status and use their time in a different manner. Whether or not this was allowed remains an open question.

Term	Translation	Site(s)	References
Amulum	Meal(?)	Vindolanda	TV 204.
Arculata	Sacrificial flour-cakes	-	TV 679.
Avena(?)	Oats/fodder	-	TV 185.
Bracis	Spelt/emmer wheat	-	TV 191, 343, 348, 645, 649.
Cuppendium	Delicacies	-	TV 679.
Collyra(?)	Pasta	-	TV 592(?).
Frumentum	Wheat	-, Carlisle	TV 160(2), 180(2), 185, 191, 375, 799. TV 1(17).
(H)alica	Gruel – emmer wheat?	-	TV 193, 233, 586(3).
Hordeum	Barley	-, Carlisle.	TV 185, 190(6), 213, 583, 584, 622, 682. TL 1(18).
Laganum	Pancake	-	TV 678(?).
Panis	Bread	-	TV 180(2), 203.
Siligo	Bread wheat	-	TV 586(8), 591, 673.
Spica	Ears of grain	-	TV 343(2)
Turta	Twisted loaf(?)	-	TV 180.

Table 5.2. Cereals and grain foodstuffs identified in the Vindolanda and Carlisle writing tablets. (Adapted and updated from Pearce 2002:935, *tab*. 2, including data from *Tab. Vindol.* vols. II, III and IV).

The demand of the fort community for these resources was often beyond what the local landscape could provide, and long distance trade was relied upon (cf. Carrington 2008:22-3). The 320 and a half *modii* of wheat sent to Vindolanda as a shipment will have provided calories sufficient for 2000 soldiers for a day; a figure likely in excess of the actual garrison but which will also likely have fed servants and other dependants (*Tab. Vindol.* II 180, Pearce 2002:934; see *tab.* 5.2).   This supply network could be fragile, depending upon factors such as the weather and well maintained roads (storms: **II.13**, bad roads: **II.20**). As discussed above, local Britons who operated wagons transporting grain will have profited from this logistical requirement (inv. 91/1108; Birley 1997b:275-6; cf. Varro, *Res Rustica* 1.2.14). By the second century, civilian entrepreneurs such as Octavius (**II.20**) were well-established middlemen on friendly terms with the military. Less fortunate was the trader responsible for the delivery of wheat attested in *Tab. Vindol.* II 180; the reverse of this account carried a draft letter (*Tab. Vindol.* II 344) protesting a beating he had received at the hands of soldiers (see **2.2.2, 3.2.5**; Birley 1997b:266-7). Although the nature of his crime is not clear (perhaps related to an unsatisfactory delivery – the fragmentary opening records something being poured down a drain), what is striking is his description of himself as *homo transmarinum*,

'overseas man', and thus protected from corporal punishment. This has been taken to indicate that the native Britons could in fact be flogged with impunity, a situation that may have exacerbated the revolt that caused Hadrian to come to Britain (1997b:277). It may also indicate a collapse in the relationship with local farmers, if the 'overseas' status of the trader is taken to indicate that he has travelled long distances to act as *negotiator*. If he was operating and residing locally (perhaps out of Corbridge), then his chosen identity may point to a further isolationist trend amongst members of the fort communities of the northern frontier – an 'us and them' mentality subsequently expressed in the construction of Hadrian's Wall and typical of a 'greedy' institution isolating itself from native communities.

Once acquired, stockpiles of grain were stored within the granaries (**4.4.5**). Archaeologists have frequently attempted to calculate the capacity of granaries from the volume and expected grain consumption of the garrison (e.g. Manning 1975; cf. Bishop and Dore 1988:128). Total capacity figures are misleading however, as the stored grain will have fed non-combatant members of the fort community as well, including families, servants, and other transient members of the fort community (Webster 1979:198). It was also vulnerable to attrition by other means. Pests such as beetles, bugs and other vermin within stored grain supplies were a particular problem for forts, as with Romanised towns and villas (Smith and Kenward 2011; cf. Buckland 1982, Wilmott 1997b:363, Buxton and Howard-Davis 2000:387-398, Howard-Davis 2009:921-926). This infestation can be attributed to a range of factors, from the increase in cross-channel trade, to the practice of storing threshed grain in bulk above ground within large granaries of a design more suited to the warm, dry Mediterranean (Smith and Kenward 2011:252). In Pre-Roman Britain, grain was stored in smaller quantities and in a whole state, and had suffered the effects of insect infestation to a lesser degree (Kreuz 1999:94, McCarthy 2013:77). Despite their structural weaknesses, *horrea* were still large, secure structures, that demonstrated to fort community members and to outsiders viewing the fort both the ability of the Roman institution to provide food for its soldiers, and its total control over its distribution (for *horrea* as storehouses for valuables see Holleran 2005:74).

Worries over the food storage for the soldiers and their dependants, especially during winter when resupply by road was difficult, must have been commonplace for fort communities. The concern over the administration of grain to the *praetorium* at Vindolanda may be seen in this light, indicating the necessity of keeping a close eye on vulnerable resources (e.g. *Tab.*

Vindol. II 180).   Forts that were not situated near to amenable grain producers, such as Ribchester, were especially reliant on transport networks (Buxton and Howard-Davis 2000:414). The presence of the famine food Redshank in early contexts at Ribchester (*c.*A.D. 72-9) suggests that these networks could be erratic (2000:49).   Tacitus noted the long distance supply demands placed upon the Britons by unscrupulous tribute collectors as a cause for revolt prior to Agricolan reforms of the late 70s (*Agricola* 19); the recipients of this inefficient supply network may also have suffered, as Ribchester indicates. Subsequent post-Agricolan garrisons at that site apparently enjoyed a stronger connection with local communities, as the incorporation of the region into the Roman Empire led to improved trade relationships (Buxton and Howard Davis 2000:74-5; similar transitions occurred across the Empire during the second century: cf. Adams 1999). The extent to which local communities benefitted from these transactions, other than receiving coin to pay taxes, is less clear, but they enabled the military institution to maintain the supply of a staple foodstuff its members relied upon, thus fulfilling a requirement of the 'greedy institution'.

5.5.6. *Meat.*

Meat is now accepted to be commonplace in the Roman military diet, if not always in quantities comparable to modern consumption (Davies 1971). Estimations of the daily meat ration vary from 63g (Groenman-van Waateringe 1997:264) to 163g (Roth 1999:32). Limited meat consumption is certainly suggested by the evidence from the latrines of the Antonine fort at Bearsden; faecal analysis revealed a diet that was almost entirely vegetarian (Knights *et al* 1983).   However, this ration could be supplemented through trade or, especially by officers, by hunting, so the total proportion of meat in the average diet of the military community is far from established. Sacrificial offerings made during religious festivals (cf. Fink *et al* 1940) will also have provided meat, albeit at irregular intervals (Davies 1971:126, Groot 2008:108-9).

King analysed meat consumption at military and civilian sites across the northern frontiers of the Roman Empire, and identified unifying themes. Military tastes were distinctively Germanic and Gallic in character, continued from the Late Iron Age into the Roman period: a preference for beef over mutton/goat or pig, with the latter more frequent in legionary sites than auxiliary forts (King 1999a:139, 144; cf. Davies 1997:270, Hawkes 2001:98, Bennett 2007b:200-1). This trend is supported, with minor proportional variations, at all forts in the north at which animal bone survives in quantity (cf. Seaward 1993, Izard in Wilmott

1997b:363-70, Stallibrass 2000, Stallibrass and Nicholson in Buxton and Howard-Davis 2000:375-86, Hodgson 2003:231-40, Cummings 2009).

Animals within the fort fulfilled roles beyond food. Mules and cattle served as draught animals, whilst dogs could be companions or used in hunting. Horses provided a means of rapid communication as well as imposing military might, in the context of cavalry units. Sheep and goats provided milk, hides, wool, and soft leather; they could also prepare pasture for use by cattle which in turn provided the bulk of the community's meat requirements (Seaward 1993:110). Less welcome but still commonplace were the rodents and insects who fed off stored supplies. Some parts of animals may also have been kept for other reasons – as trophies, charms, medicines, and so forth (Seaward 1993:108). Certainly bone was also used as a material for knife handles, and for gaming counters (cf. *RIB* II.3.2440, Buxton and Howard Davis 2000: cat. no.2.80, Blake 1999:10, 16; Appendix **III.8**). However, the bulk of archaeologically recovered bone from Roman sites was subjected to butchering, and thus incorporated into the diet at some point.

Term	**Translation**	**Site(s)**	**References**
Anataris	Ducks	Vindolanda	TV 593.
Anser	Goose	-	TV 581(4).
Axungia	Pork fat	-	TV 182, 190, 601.
Bubulum	Beef	-	TV 592.
Buturum	Butter	-	TV 204(?).
Callum/alium	Rind or crackling	-	TV 233(?).
Caprea	Roe deer	-	TV 191(2).
Cervina	Venison	-	TV 191, 196(?), 439.
Cycnaris	Swans	-	TV 593.
Lardum	Bacon	-	TV 182(3).
Lardi perna	Bacon-lard	-	TV 182.
O(f)fella	Pork-cutlet(?)	-	TV 203.
Ostria	Oysters	-	TV 299.
Ova	Eggs	-	TV 193, 302, 592.
Perna	Ham	-	TV 184(?), 191.
Porcellus	Young pig	-	TV 191, 587.
(Caro) hircina/porcina	Goat meat/Pork	-	TV 186(2).
Pullus	Chicken	-	TV 302, 581(15), 582(2), 616, 679.
Sebum	Suet/tallow	-	TV 184(4), 319(?).
Turdaris	Thrushes	-	TV 593.
Ungellae	Pig's trotters	-	TV 233.

Table 5.3. Meat, fish and animal products identified in the Vindolanda writing tablets, (adapted and updated from Pearce 2002:935, tab. 2, including data from *Tab. Vindol.* vols. II, III and IV).

At northern frontier forts, evidence for meat consumption comes from the osteological record; sources such as the Vindolanda tablets can fill in gaps (Pearce 2002:940; *tab.* 5.3). Overall, these support King's assertion regarding the role of meat in the diet of these fort communities (Seaward 1993:109). At Vindolanda, animal remains found within the laminated flooring, included molluscs (oysters, mussels, winkles, snails), the bones of cattle, sheep, goat, boar, red and roe deer, horse, and dog (Seaward 1993:96, 108-15). The skeletons of domestic chickens were recovered from Period II onwards. These were a primitive breed, close to a pheasant in size, of which the cockerels may have been retained for fighting but which were also consumed during meals in the *praetorium* (Davies 1971:130, Bennett 2007a:164, 177, Pearce 2002:938, cf. **II.24**; *contra* Seaward 1993:113). They may have been used for laying, but eggs were also supplied in bulk to the garrison, as indicated by the shopping list requesting between 100 and 200 from a nearby market (*Tab. Vindol.* II 302; cf. **II.9**).

Pigs provided bacon and bacon-lard; the former could be salted, smoked or cured, and as such was an important form of meat for the soldiers (Pearce 2002:938). Lard could be used in place of oil in cooking and was more readily available in the northern provinces (Davies 1971:124). It is possible that these were generally transported to fort sites as commodities rather than produced on site. The skeletal evidence from a range of sites indicates that these were typically slaughtered young, from suckling age to bacon weight (between two to six weeks and eight to ten months old; Birdoswald: Izard 1997:363-70, Carlisle: Evans and Bates 2009:1458, Ribchester: Stallibrass and Nicholson 2000:382, Vindolanda: Seaward 1993:113, Wallsend: Gidney 2003:234). The distinction may be significant with regards to the display of status; the Mediterranean tradition of eating suckling pig, combined with its relatively low occurrence on auxiliary sites, may indicate that it was reserved for the officers, in contrast to the more widespread pork products of lard and bacon (Izard 1997:369). However, a suckling pig can also provide sufficient meat (around 8-10kg) to easily feed a *contubernium* and their dependants at a single feast – perhaps the context for the suckling pig bones found in a third century barrack block at Wallsend (Gidney 2003:234). We know that bread was produced at the level of the *contubernium* (see above); the addition of a whole animal to a meal, whether paid for collectively or gifted by one individual, would be a treat that would further inspire a collective identity amongst the 'mess-mates'.

That pigs were raised at Vindolanda is demonstrated in *Tab. Vindol.* II 180, which refers to Lucco, a pigkeeper in the Period IV fort. Pork consumption at Vindolanda by Batavian and Tungrian soldiers runs parallel to its increased consumption in northern Gaul in the late first century (Robeerst 2005:88). Batavian recruits may have become accustomed to pork products prior to joining the military, but this was within the highly militarised (and thus legion-influenced) context of the Germanic frontier region at this time. By contrast, a preference for beef in rural areas of the Batavian region continued into the Roman period; although this was not the case for the Tungrians (2005:81).

Surprisingly, there are no references to mutton and only one (possible) reference to beef in the Vindolanda tablets, despite the presence of cattle and sheep remains at the site (*Tab. Vindol.* III 592; Seaward 1993:111, Pearce 2002:938). This may result from emphasis during excavation on the site of the *praetorium*, who inhabitants may have enjoyed a rarefied diet compared to the common soldiers who more usually ate mutton or beef (2002:940). Cattle bones were a common find at Vindolanda, predominantly of the native Celtic Shorthorn breed, with some larger examples possibly improved draught oxen introduced by the Romans (Hodgson 1977:19, Seaward 1993:110; draught oxen: see **II.20**).

Most stock meat will have been brought to the forts on the hoof, then slaughtered and butchered at the site (Seaward 1993:110; the process is described in Stokes 2000), although the disproportionate number of ox scapulae at Ribchester suggests that cured meat was also transported to the site in this form (Buxton and Howard-Davis 2000:378; cf. Maltby 2007:71-2, Evans and Bates 2009:1459-60). At South Shields in the early third century, Stokes identified the slaughter of cattle in the streets of the fort, with the carcass roughly divided into equally sized portions prior to distribution to the soldiers; this public act demonstrated 'conspicuous fairness' (2000:147). The meat was presumably distributed at the level of the *contubernia*, although Stokes noted that portions of these crudely-butchered animals were also found in the *praetorium* (2000:149). If the same animal could be consumed across the garrison, this could send a strong unifying message, as the commander could be seen to be sharing in his soldiers' food (see above), even if he did more often receive cuts from the more tender parts (2000:149).

Stokes urged caution in applying his findings to other sites (2000:151; cf. Haynes 2013:183), but the connection between the commander and his men through the supply of beef may in my opinion be supported by evidence from Vindolanda. That larger animals were kept for

food near the fort itself is indicated by a branding iron bearing the letters C(retro)E from the Period III *praetorium* at Vindolanda, possibly signifying ownership by Cerialis (Birley *et al* 1993, cited in Blake 1999:32; **III.7.**7, *fig.* 5.26). Although as noted above, his household does not seem to be responsible for the consumption of beef, I would argue his ownership of cattle could hold a dual significance for his Batavian soldiers, in that he owned and provided a key part of their sustenance, and that this took the form of a herd of cattle – an important indicator of status within pre-Roman Iron Age Europe (see above).

Figure 5.26. Branding iron, Vindolanda Period III *praetorium* (after Blake 1999:32).

Cattle bones in the Severan ditch at Vindolanda show beef was rarely roasted, but was instead stewed in shredded form, indicated by the cutting patterns on bones, and the presence of heavy duty cookware suited for this method of cooking (Bennett 2005:158). Davies found many beef bones at Roman sites had been broken down to extract the marrow, providing a stock for such stews, while demonstrating that whole carcases were utilised (1971:127). There are few references to dairy products within the Vindolanda tablets, although cheese was held to be a staple of the military diet; a cheese squeezer from Corbridge indicates it was available locally (1971:127-8).

Some cultural restrictions in meat consumption were in place. It is notable that horse remains are so few at Vindolanda and Birdsoswald, forts that had part-mounted garrisons (Hodgson 1977:24, Seaward 1993:111, Bennett 2007b:201). This may indicate the special treatment of horses after death, including burial in special (and so-far undiscovered) cemeteries (2007b:201; cf. Kestern horse cemetery, Lauwerier and Hessing 1992). If humans were restricted from eating horse flesh, this was not true for dogs; the horse bones from the Severan ditch at Vindolanda showed characteristic gnaw-marks, even if they had escaped the usual process of reclamation that saw cattle and pig bones scraped and smashed (Bennett 2005:139-40; cf. Seaward 1993:108-9). The significance of cavalry to military identity, and

the close bonds that may have formed between men and their mounts when living in close proximity are likely a factor here. It is appropriate that some care would have been given to such mounts at the end of their lifespan.

The consumption of sea-food, in the form of fish sauce (see below) and oysters can be observed in the Vindolanda tablets (*Tab. Vindol.* II 299). This was a marked contrast with native Iron Age populations, most of whom had a taboo against such consumption (Dobney and Ervynck 2007:409). A new transport infrastructure increased the availability of fresh fish and oysters at inland sites (Willis 2007:111). Oysters, which could be transported live in sealed containers filled with seawater, are common finds within Roman military contexts in Britain, especially coastal forts such as South Shields and Maryport (Davies 1971:128-9, *tab.*2). It is not clear who ate these, or if they were consumed regularly or only during special occasions (cf. Willis 2007:113). Fishbones do not survive well archaeologically, being fragile and frequently missed, and so the evidence for fish consumption is uncommon on northern frontier sites, although they were consumed at the fortresses of Vindonissa and Chester (Davies 1971:129).

Hunting for game was a favoured pastime for the aristocracy of Rome, and aristocratic commanders of auxiliary forts were no different in this regard. Hunting involving either active pursuit of larger animals such as wild boar and deer with weapons and dogs, or passively hunting with nets and traps for birds and other small animals. The fourth century B.C. writer Xenophon described the hunting of hares with dogs and nets together, although this practice was not described in the response on the same subject by Arrian written in the second century A.D. (Xenophon *On Hunting* 2.4-9, 6.5-10; Arrian *On Hunting*; Phillips and Willcock 1999:5-6).

Hunting encompassed more than simply acquiring game for consumption. It was also, as today, a form of elite display which enabled aristocratic males to compete and socialise in an environment of relative privacy. For military commanders with no battles to fight, the hunting of wild boar and stag offered an opportunity to demonstrate *virtus* through the skilled use of weaponry and the confronting of a dangerous foe. Northern Britain did not offer the same range of game as could be found on the Germanic frontier, nor in equivalent numbers, but opportunities could still be found to engage in this activity (cf. King 1999:147-8; hunting lances at Carlisle: *Tab. Lugoval.* 16, Tomlin 1999:136, spears for the huntsman Victor at Vindolanda's Period IV *schola*: *Tab. Vindol.* IV 861 = **II.37**). An early third century altar

from Bollihope Common in County Durham, dedicated by the prefect of an *ala* of Sabosian cavalry to the god Silvanus, commemorates his capture of a wild boar 'which many of his predecessors had been unable to bag' (*RIB* 1041). This was a monument to his superiority amongst his peers. Attributing success in a hunt to divine intervention also demonstrated a favoured status for the dedicator: such a motivation may have compelled the prefect Aelius Brocchus to dedicate an altar to Diana, a goddess of the hunt (*CIL* 3.4360; cf. Arrian *On Hunting* 33). Hunting was also done without the intention of acquiring food; the act of hunting hares with dogs was an enjoyable past time in itself, according to Arrian, who would release hares that ran well (*On Hunting* 16.5; Phillips and Willcock 1999:5).

Particularly in the first century, I would argue hunting practices in the north of Britain may have reflected traditional practices of the Western Empire more than emulation of the elite of Rome itself. Hunting with dogs was popular amongst the northern and western provinces, and those who hunted in the south and east were consciously emulating their customs (Arrian *On Hunting* 3, 35; cf. Phillips and Willcock 1999:169 for difficulty in identifying these practitioners). Trajan was a keen hunter, reviving the tradition; the practice of hunting was regarded in Rome prior to his accession in A.D. 98 as suitable primarily for slaves and freedmen, or as a spectacle in the arena (Birley 1997a:25). The Younger Pliny and Tacitus later took advantage of the isolation hunting offered, and the associated opportunity for scholastic reflection and composition (Pliny *Epistles* 1.6, 9.10; *Panegyric* 81.1; cf. Birley 1997a). Naturally, this was simpler when passively hunting with nets.

By the A.D. 120s when Hadrian visited the northern frontier, hunting was widely accepted as an aristocratic pastime (although passive hunting appears to have passed out of fashion; Birley 1997a:137). The much earlier references to hunting in the Vindolanda tablets of the Cerialis archive of Period III are notable for this reason. Cerialis owned two breeds of hunting dog; one was a Celtic greyhound bred for speed (*vertragi*), another was of a loud, shaggy breed that also made excellent guard dogs (*segusi/segosi*) (*Tab. Vindol.* III 594, 677, 683; cf. Bennett 2005). Britannia had been famous for its hunting dogs before the conquest; the early first century geographer Strabo listed them amongst Britain's primary exports (*Geography* 4.5.2), and native breeds continued to be exploited. The later Severan Stone Fort ditch produced a number of powerfully-built hunting dogs which had died in the prime of their working life (between two and four years old); a wolf more than twice the size of the

largest dog was also found in this context, demonstrating the dangers of the northern frontier even after over a century of occupation (Bennett 2005:121, 123-4).

That Cerialis also hunted passively is shown by *Tab. Vindol.* II 233, in which he corresponds with the prefect of a neighbouring fort, Aelius Brocchus, over repairs to *plagas* (hunting nets). The use of these to catch animals for food rather than sport is implied by **II.27**, which records the nets and snares used for thrushes, ducks, and swans left behind by the Ninth Cohort of Batavians at Vindolanda – some apparently given to a veteran who remained at the site (Birley 1997b:279). Swans and other game have been identified at Ribchester, Hod Hill, Newstead and Chester, indicating a common enthusiasm for the hunting of these animals (Davies 1971:130).

Hunting is another good example of an archaeologically 'invisible' occupation – evidence for its practice on the northern frontier comes from epigraphic evidence (and the Vindolanda tablets) rather than from surviving material culture. Most tools used by the hunters were made solely from organic materials (e.g. nets, snares, untipped arrows, slings), or discarded in isolated contexts. Weapons with more durable components (composite bows, arrow heads, spears) used in hunting may have been indistinguishable from conventional military equipment. The remains of game (e.g. those of red deer, as at Vindolanda; Hodgson 1976, 1977, Bennett 2007b) indicate its presence and consumption at a military site, but do not in themselves confirm the practices involved in their acquisition. There are a few references to game within the tablets; *Tab. Vindol.* II 191 includes a reference to roe deer, but as this is an account it is not clear if this was hunted by members of the garrison or bought from local hunters (cf. Pearce 2002:938). Cerialis's dogs, kept close to the prefect's hand and spoken of in his correspondence, are arguably the clearest indicator. Whether Cerialis saw hunting as primarily an enjoyable sport, a noble display of *virtus* before the gods and his peers, or as an opportunity for socialisation with his peers, it was nonetheless part of a distinctively western aristocratic *habitus*. It also enabled him to fulfil the elite role of patron to his men. The resulting catches may have entered the regular diet of the soldiers, suggesting that this elite display could benefit other members of the fort community (e.g. the venison recorded in *Tab. Vindol.* II 191; Seaward 1993:112). The huntsmen of Cerialis referred to in *Tab. Vindol.* III 615 may have helped in transporting catches of similar size in the earlier periods of occupation back to the fort. Such acts brought together and emphasised the military hierarchy; commanders were expected to contribute and their men were expected to support

them in return. The provision of another essential of ancient life, alcohol, was also incorporated into such systems of patronage, as the next section argues.

5.5.7. *Alcohol.*

> 'Masclus to Cerialis, his king. Please, my lord, give instructions as to what you want us to have done tomorrow…Are we to return with the standard to [the shrine at?] the crossroads all together or every other one…most fortunate and be well disposed to us. Farewell. My fellow soldiers have no beer. Please order some to be sent. To Flavius Cerialis, prefect, from Masclus, decurion.'

> (*Tab. Vindol.* III 628 = **II.29**.)

> '…is agreed to have not been done and that he was more(?) inebriated…'

> (Fragment, *Tab. Vindol.* III 662.)

In the ancient era the only reliable means of ensuring a drink was potable was through the incorporation of alcohol. For the Graeco-Roman world this entailed the consumption of wine, produced from grapes which grew well in the Mediterranean climate. In the northwest of the Roman Empire, a drinking culture existed based on beer produced from grains. This drink provided another source of calories and so supplemented the role of grains within the military diet. On the northern frontier of Roman Britain, the consumption of wine or beer would be an everyday occurrence for inhabitants of the fort community, providing variety to a diet, a mild psychotropic experience, or simply an opportunity for communal drinking, as the tablets quoted above indicate (Whittaker 2004:97; see *tab.* 5.4). The Vindolanda tablets attest to a range of forms of alcohol being consumed, from imported Massic wines to locally brewed Celtic beers (*Tab. Vindol.* II 186, 190, III 482, 628; cf. Pearce 2002:938, Birley 2003b:147). The latter was a cheap staple, if the price of 8 asses for a *metretes* (37.4 litres) given in **II.7** is representative (Birley 1997b:279). It is notable that beer was consumed by inhabitants of the *praetorium* (presumably including Cerialis) as well as by the troopers of Masclus (*Tab. Vindol.* II 190; Pearce 2002:940-1). This may perhaps indicate a commanding officer emulating the consumption patterns of his Germanic soldiers (see above), although it could also simply be a case of shared tastes. That this preference was distinctive to the auxiliary forts may be implied by **II.6**, an expenses account for a journey from Vindolanda to York and back that includes multiple entries for lees of wine – a traditionally cheap drink for

Roman travellers that indicates wine was available in this region (CSAD 2010:*Tab. Vindol.* II 185, n.5). As Haynes notes, it would be interesting to know if this consumption pattern was reflected amongst Mediterranean soldiers stationed in the region (2013:180).

Term	Translation	Site(s)	References
Acetum	Sour wine	Vindolanda	TV 190, 202(?), 673.
Cervesa	(Celtic) beer	-	TV 186(2), 190(4), 482, 628.
Conditum	Pickling liquor	-	TV 208.
Faex?	Wine lees	-	TV 185(6).
Mulsum	Honeyed wine	-, Wallsend	TV 302, RIB II.8.2503.3
Vinum	Wine	-	TV 190(4), 203.
Vinum (Massicum?)	(Massic?) wine	-	TV 190.

Table 5.4. Alcoholic drinks identified in the Vindolanda writing tablets and other textual sources (adapted and updated from Pearce 2002:935, *tab*. 2, including data from *Tab. Vindol.* vols.II, III and IV).

Commensal consumption of alcohol within the context of the fort community is difficult to reconstruct; beer could clearly be consumed whilst outside the fort on duty however, as the request of Masclus demonstrates. Drinking vessels in a range of contexts within the fort communities suggest that public consumption was important however. The role of women in food supply within the fort community was discussed above (**2.3.2-3**), but they are also known to have been involved in service roles relating to alcohol elsewhere (e.g. the landlady referred to at Vindonissa in *Tab. Vindon.* 45; Speidel 1996:55, 80, cf. Allison 2008:124). The *collegia* (see above) may have provided a further context for the sharing of alcohol in a commensal context, as club members socialised and celebrated a shared military identity (cf. *Tab. Vindol.* III 656). It is not clear where such social gatherings took place within the fort; *Tab. Vindon.* 45, the party invitation from Vindonissa, implies that houses in the *vicus* may have been used for such events, whilst the presence of drinking vessels within Period 3A and 4B workshops at Carlisle may imply a social function for these buildings as well (cf. Zant 2009:105-6, 237).

Wine is attested in a number of writing tablets at Vindolanda and was transported to the *praetorium* in significant quantities – between 70 and 140 amphorae a year (Pearce 2002:940). Upon arrival, it was decanted into smaller containers including flagons for individual consumption (2002:938, Swan 2008:49; Vindolanda: **III.7.11-2**, Carlisle: **III.7.199**). Unlike wine, beer could be produced locally with relatively little equipment; it also made use of food resources which could otherwise be consumed in very different ways. For instance, beer could be produced from barley or wheat. Archaeologists generally assume the former because Romans regarded it as solely for animal consumption, but regional tastes

varied; barley was a staple food in the north west of Europe during the Iron Age, and wheat beer was a valid alternative (Stallibrass and Thomas 2008b:163, Vossen and Groot 2009:95). The brewers (*cervesarii*) recorded at Vindolanda such as Atrectus (*Tab. Vindol.* II 182) and maltsters (*braciarii*) such as Optatus (*Tab. Vindol.* III 646) met a demand for a culturally distinctive drink within the Batavian garrison, and similar craftsmen existed elsewhere (cf. Tomlin 1991b:214). It is not clear if these were civilian craftsmen or serving *immunes* (Birley 1997b:279), but a possible parallel exists in the German fleet veteran who was a supplier of beer to the military in the late first century A.D. (*AE* 1928:183, cited in Davies 1971:133). That their products were consumed by all ranks indicates the central role these craftsmen and tradesmen played in the maintenance of a distinctive way of life for the garrison.

5.5.8. *Pulses, vegetables and fruit.*

Term	Translation	Site(s)	References
Beta	Beets	Vindolanda	TV 592.
Fabae	Beans	-	TV 192, 204(?), 301, 591.
Faba fresae	Bruised beans	-	TV 302.
Lens	Lentils	-	TV 204.
Malum	Apples	-	TV 302.
Nucula	Nuts	-	TV 591.
Prunulum	Small plum?	-	TV 189.
Radix	Radish (*radix Britannica*?)	-	TV 301, 675.
Oliva	Olives	-	TV 208, 302, 679.
Uva	Berries	-	TV 591.

Table 5.5. Pulses, fruits and vegetables identified in the Vindolanda writing tablets. (Adapted and updated from Pearce 2002:935, *tab*. 2, and including data from *Tab. Vindol.* vols. II, III and IV).

In addition to cereals, pulses and vegetables also contributed to the core diet of the military community. Pulses such as peas (*pisa*), lentils (*lentes*) and beans (*fabae*) each provided essential proteins to supplement those obtained from cereals (Roth 1999:43, Garnsey 1999:15). As these were a cheap foodstuff that could be stored in bulk for long periods if dried, they may also be expected to constitute an important part of the diet of the poorer members of a fort community (Roth 1999:33, Garnsey 1999:15, 113; cf. *RIB* II.8.2503.5). The prospect of malnutrition, especially amongst children and pregnant and lactating women, remained a valid concern, especially if the supply of certain foods were dependent upon new or tenuous trade networks (Garnsey 1999:21, McCarthy 2013:45). Malnutrition remains a little understood aspect of Roman life but avoiding it would have been an everyday concern

within the fort communities of northern Britain (cf. Garnsey 1999:43-61). The availability of pulses and vegetables through local or long distance trade will have alleviated these concerns to some degree. Next to cereals, beans appear in the largest quantity in the Vindolanda tablets – **II.8**, an account of Gavo, records the delivery of 55 *modii* (480.15 litres) of this foodstuff (Pearce 2002:939; see *tab.* 5.5).

Fruits and nuts were also consumed by Roman soldiers, providing essential nutrients as well as variety within a diet. A number of fort sites within Britain show the exploitation of local resources (e.g. hazelnuts at Newstead, Slack, Bar Hill and Castleshaw; cherries at Caersws and Vindolanda, Davies 1971:132). Fruit appear in only a few of the Vindolanda tablets, but the request for 100 apples ('if you find nice ones') is notable (*Tab. Vindol.* II 302). These could at least be acquired locally; the shipment of olives in *Tab. Vindol.* II 302 must have come from overseas however (cf. *RIB* II.4.2492.31), as must the figs from which seeds were discovered in Pre-Hadrianic layers (Seaward 1993:106).

Olive oil makes relatively few appearances in the tablets, compared to its presumed pre-eminence within the military diet and the good evidence for oil-containing Dressel 20 amphorae on the northern frontier (*contra* Garnsey 1999:126; cf. Carréras Monfort and Furari 1998). Indeed, the prevalence of olive oil on military sites in Britain has led Funari to assert that it played an essential role in the auxiliary soldiers' negotiation of an appropriate Roman identity, as its use served to visibly demonstrate their allegiance to Rome (Funari 2002:263, cited in Haynes 2013:175-6). As with beef and mutton, its absence from the tablets may simply be incidental, but the references to bacon lard and tallow suggest that alternatives may have been preferentially used at this site for cooking and lighting. It is possible this indicates a rejection at Vindolanda of olive oil, at least for some uses, and thus potentially a rejection of Roman tastes, but this is highly speculative.

5.5.9. *Spices, herbs and condiments: variety in consumption.*

> '"When I joined it was all grey steaks and watery cottage pie," he says. "Same thing every day. Men would lose track of time, and get depressed. Now we vary the menu. When you've got 500 people in the middle of nowhere, this is where you make their week interesting…In the past we just fed people…Now we give them morale."'
>
> (Warrant Officer Davis, British Armed Forces annual cooking contest, Sandown, 2012; cited in Simons 2012).

'Boil and stir the peas till smooth. Crush pepper, lovage, ginger and to the seasonings add hard-boiled yolk of eggs, 3 oz[85g] honey, fish sauce, wine and vinegar. Put all this in a saucepan with the crushed seasonings. Add oil and leave to boil. Add to the peas, and stir again if still firm. Add honey and serve.'

(Recipe for 'Vitellian peas', *Apicius* 5.3.5, cited in Dalby and Grainger 2000:120).

The Roman military diet was adequately nutritious but may often have seemed monotonous. One important way of adding variety and flavour to a diet, then as now, is the use of spices, herbs and condiments (Junkelmann 1997:146-9). The Late Roman cookbook *Apicius* (see below) demonstrates the range used in the preparation of food in the Mediterranean world; references to exotic and imported herbs and spices in the Vindolanda tablets demonstrate a similar style of cooking was carried out on the northern frontier as well (see *tab.* 5.6). The ability to utilise exotic herbs and spices may not only have improved morale (as the quote above demonstrates) but also enabled the continuation of dining practices established elsewhere. In this way the fort community was less dependent upon distinctively local culinary practices, and members could continue to prepare food in a manner they had become accustomed to elsewhere.

Term	Translation	Site(s)	References
Alliatum	Garlic paste	Vindolanda	TV 208.
Anisi	Aniseed	-	TV 588.
Carei	Caraway	-	TV 588.
Condimentum	Spice	-	TV 191, 193.
Coriandri semini	Coriander seeds	-	RIB II.8.2503.1.
Cuminum	Cumin	-	TV 591.
Ligusticum	Lovage	-	TV 204.
Mel	Honey	-	TV 192, 591, 592.
Mintha	Mint	-	TV 679.
Muria	Fish sauce	-	TV 190, 202, 302, 594(?).
Oleum	Oil	-	TV 203, 589(2).
Piper	Pepper	-	TV 184.
Sal	Salt	-	TV 185, 186, 191.
Sinapi	Mustard seed	-	TV 588, 591.
Thumum	Thyme	-	TV 588.

Table 5.6. Spices, herbs and condiments identified in the Vindolanda writing tablets and other textual sources (adapted and updated from Pearce 2002:935, tab. 2, including data from *Tab. Vindol.* vols. III and IV).

Salt was the most important flavouring used within the military diet (cf. Vegetius 3.3); it was also essential for preserving meat and making bread and cheese (Roth 1999:41). A lack of salt was considered a terrible hardship by Roman soldiers, so it may be accepted as a

universal presence in fort communities (1999:41). Salt is attested in large quantities at Vindolanda in two tablets (*Tab. Vindol.* II 185 = **II.6**, 186), and may have been sourced in the northern region of Britain from the Tees estuary (Willis, cited in Pearce 2002:939; cf. McCarthy 2013:93-5).

Fish sauce features within the Vindolanda tablets only in the form of *muria*, a cheaper variety than the preferred *garum*, and in small quantities (see *tab*. 5.8). This may simply be under-representation, given the ubiquity of fish sauce elsewhere in the Empire. Certainly it does not reach the standards seen in contemporary London, which received a delivery of 'Lucius Tettius Africanus's finest *liquamen* from Antipolis…' (*RIB* II.4.2492.24). An amphorae containing high quality fish sauce from Morocco was deposited within the Period 3 *praetorium* at Carlisle; as this was the house of the commander it may be expected that the standard of dining here was correspondingly high (Howard-Davis 2009:523, see *fig.* 5.27).

Figure 5.27. Amphorae label (*dipinti*) for fish sauce from Tangiers (after Howard-Davis 2009:523, *fig.* 277).

Condimentum, a generic label, encapsulated a range of fresh or dried herbs and spices. A small but distinctive selection is recorded in the Vindolanda tablets, including some that could be obtained locally, such as thyme, lovage and mint. Others, such as the cumin and pepper, are exotic imports that are rarely detected archaeologically in the west (Pearce 2002:939); coriander seeds were another possible import found at that site (Seaward 1993:106; cf. *RIB* II.8.2503.1). The pepper at Vindolanda was purchased by a soldier of low rank for 2 *denarii* – equivalent to eight days' pay – suggesting that this was a desirable spice

(**II.5**; see **I.2**).   The ability of the soldiers to acquire these spices, and liven up what may otherwise have been a monotonous diet, came as a result of the expansion of Roman trade networks rather than an imposition of Italian dietary practice (pepper will also have been exotic in Rome; Haynes 2013:184).   This access was nonetheless dependent upon – and an implicit benefit of – military service.

Honey at Vindolanda is recorded in an unknown number of *modii* in **II.8**, and as *lini mellari* in **II.26**.   As an important sweetener within Roman cuisine it will have had a multitude of roles within cooking, but in the latter example (where it is associated with medical supplies) it seems to be used as an antibiotic coating for bandages (Bowman and Thomas 2003, no. 591, n.10).   If it was produced by local apiarists, wax could also have been acquired from the same source, a substance that had many domestic functions; as Allason-Jones has argued, the need for wax products within the forts of the northern frontier will have been significant, and the wood and straw hives they could have used would not be expected to have survived (tallow could also provide light however; 2008b:42).

Overall, herbs and spices enabled the production of distinctively flavoured food – an important consideration given the relative monotony of the military diet – and much could be achieved with relatively little, as reproduced Roman meals have shown (cf. Junkelmann 1985).   However, the use of these in food preparation was an area in which the distinctiveness of life within the military institution could be emphasised.   Fish sauce, the quintessential Roman condiment, would have been unknown in the region when the military arrived in the 70s (Swan 2008:49), and the pepper referenced in *Tab. Vindol.* II 184 was an even more exotic import.   The continuation of these dietary components was made possible only through the maintenance of long-distance supply networks – networks which ensured each fort remained part of the wider military community.

5.5.10. *Meals in the fort community.*

> 'Perhaps the best tribute to the army of the Principate, on campaign or in peacetime or even during the rare mutinies, is that there is no recorded complaint about the Roman military diet.' (Davies 1971:137-8).

> '15 August. A pork cutlet…of bread…of wine, *sextarius* 1…of oil…'

> (Components of a meal for one, from the Period III *praetorium* at Vindolanda, *Tab. Vindol.* II 203)

The discussion of food above has shown the ability of the inhabitants of the fort community to acquire a wide range of foodstuffs and to enjoy a varied and presumably healthy diet. This will have acted as a means of differentiation between themselves and local communities who may have lacked access to these trade networks and the financial or cultural resources required to make use of them; such divisions occurred within the fort community as well. Equally, the failure of native Britons in the north to adopt Roman material culture may also be seen as a result of exclusion (cf. Cleary 1999:166). Alongside more overtly military customs such as dress and architecture, diet should also be seen as a core element in defining the military communities of the northern frontier, identifying them within the larger cultural context of the Roman military.

Consumption within fort communities requires the reconstruction of individual meals and feasting events, which to some degree can be achieved through the archaeological recovery of dining paraphernalia such as flat dishes, flagons and utensils, of cooking equipment such as mortaria and cooking pots, and transport media such as barrels and amphorae (cf. Pitts 2005:50-1; for material associated with dining see Appendix **III.7, III.8**). The Vindolanda tablets also provide the most direct source of evidence for specific events, such as private meals for the prefect and his friends, and to the celebration of religious feasts such as the Saturnalia (*Tab. Vindol.* II 301).

As noted above, a wide range of herbs and other flavourings were apparently available to the inhabitants of the fort community, and we know that formal Roman cooking will have made good use of many of these. The Late Roman recipe book *Apicius*, named for the first century A.D. gourmand Marcus Gavius Apicius, is a functional textbook that demonstrates a vast range of herbs and spices utilised even within individual dishes (Edwards 1985, Junkelmann 1997:146-9, Dalby and Grainger 2000, Grainger 2006). Scholars have therefore often viewed Roman food as being essentially unpalatable, a means solely of displaying wealth through quantity over quality of ingredients, but experimental reconstructions have shown that a subtle flavour could nonetheless be obtained with skilled preparation (Grainger 2006:10-11). The presence of pepper and cumin at Vindolanda may represent the emulation by Germanic soldiers of this elite, 'Roman', lifestyle, in the process enhancing their social status through the use of exotic and expensive ingredients (cf. Meadows 1994). Atypically Roman consumption patterns are most evident in the favoured consumption of beer at sites such as Vindolanda and Carlisle, and perhaps also to the use of animal fats over olive oil at

Vindolanda. One fragmentary tablet from the Period III kitchen at Vindolanda references 'Batavian *mos*' in a list of ingredients, apparently for a preserve, showing that Germanic foodstuffs were still consumed in the household of Cerialis (cf. Pearce 2002:941, Haynes 2013:181).

The archaeological and textual evidence from Vindolanda show that dining within the *praetorium* evoked a Mediterranean standard which paralleled the architecture of this building. Specific items of dining dress and vessels are referred to (**II.10**, **11**; cf. *Tab. Vindol.* III 590), along with records of individual meals (**II.24**, *Tab. Vindol.* III 639). Hosting meals was an important means of maintaining social connections; Cerialis included among his contacts fellow prefects, the governor of the province, and a legionary legate (**II.24**; Pearce 2002:941). His family too enjoyed social connections, as evidenced by the birthday invitation sent to Cerialis' wife, Lepidina, by Claudia Severa, the wife of the prefect Aelius Brocchus (*Tab. Vindol.* II 291, 292, 293).
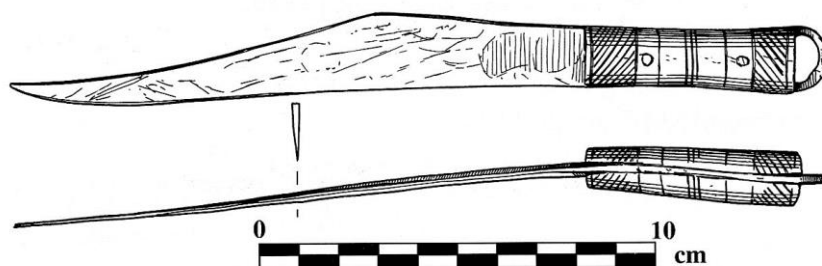
Figure 5.28. Iron knife with decorated bone handle, Vindolanda Period II (after Blake 1999:9).

Meals for the soldiers would have been simpler affairs on the whole. Basic staples such as porridge and fried food could be prepared within the back rooms of *contubernia* over the hearths, either by the soldiers themselves or by their slaves or grooms, whilst bread was baked in ovens set into the fort ramparts (Junkelmann 1997:94-6, Swan 2008:49). The larger items used in cooking were probably shared between *contubernales*; the rotary quern and the *mortarium* for mixing food in particular (Haynes 2013:187; cf. *RIB* II.4.2496.3, 2497). Grinding grain for flour for the whole *contubernium* will have taken around four hours (Croom 2011:51), although it is possible that this work could be delegated to slaves; waterwheels at forts such as Birdoswald and Greatchesters may also have helped to reduce preparation time (cf. Spain 2002). The acts of preparing and consuming food together at this level emphasised a collective identity among the *contubernales*, as new recruits rapidly

absorbed eating habits and taboos that were specific to the cohort or even the *contubernia* (Carroll 2005:366, Haynes 2013:188).

Although we have few indications of the details of these interactions, small finds indicate means by which individual and collective identities may be forefronted in these contexts. The personal knives used as utensils could be made distinctive through the use of decorated handles of bone or wood (see *fig.* 5.28; **III.8.1-37, 85-90, 149, 152-4, 158-162, 202-8, 242-7**), providing a further opportunity to display status through material culture – or simply to indicate personal ownership. This was an example of variation within uniform artefact types, the significance of which is now lost. Ethnic dining practices preserved at the level of the *contubernia* are clearer, as seen in the use of North African braziers and casseroles on the northern frontiers by legionaries of the *Legio III Augusta*, brought to the region by Severus in the early third century (Swan 2008:69).

> 'Meals are one of life's most regular and sustained rituals, often but not always involving commensality and supernatural blessing. Food is also deeply implicated in politics and the construction of identity and culture.'

(Parker Pearson 2003b:1)

Food also served in a more overtly political role. The fort community as a whole will also have been brought together through Roman festival events, which we know were observed by the *auxilia* thanks to the evidence of the *Feriale Duranum* from Dura-Europos (Fink *et al* 1940). Such occasions were an opportunity for commensal feasting that displayed the status and authority of the fort commander, for the consumption of unusual foodstuffs (such as sacrificial beasts) and the display of wealth through the use of exotic imports (although the small amount of pepper sent to a soldier at Vindolanda may have been used at any time). Although there is little evidence for large-scale feasting in the Vindolanda tablets, the *Saturnalia* was certainly observed (*Tab. Vindol.* II 301). These displays of collective identity served to enforce the status quo of the fort community, as those within were brought together whilst power relationships were confirmed and entrenched, in what Dietler has described as the 'patron-role' type feast (2001:82-5). Such festivals also strengthened the social boundaries between those who could participate, and those who were excluded (2001:88). Exactly where this boundary lay is not clear, but the necessary food and alcohol required for feasting (as well as any sacrificial animals) will have been procured through a range of

supply lines (trading, hunting, taxation) that impacted upon local people in a number of different ways. A Roman feast, which marked out the boundaries of the military community, will have been hard to miss for the excluded nearby and served as a reminder of the potential benefits of service – as well as the strength of conformity of those within the military hierarchy (cf. Whittaker 2004:98). It also marked Roman time by punctuating the year; concerns over accurate timekeeping, reflected in the daily reports and the use of such artefacts as the perpetual calendar recovered from Vindolanda (of third or fourth century date; cf. Birth 2014), demonstrate the importance of such events being celebrated simultaneously across the Empire. Members of the broader military community were unified through these processes.

5.5.11. *Feeding the soldier: health and diet summary.*

This section has addressed a more intimate aspect of Roman life than military activities or industrial activity, as practices surrounding health care and diet are far more relatable concerns. Certainly access to these will have been seen as a core benefit of military life – even if the degree to which Romanised medicine or dietary practice were adhered to was clearly variable. The ability of military units to adopt and maintain practices traditional to them, be it a religious focus within healthcare or a taste for beer over wine during meals, shows to some degree the heterogeneity of Roman military life. Nonetheless, members of the fort communities of the north of England still lived within a military environment that shaped their attitudes and actions with regards to consumption practices. Free travel and association were certainly restricted for common soldiers, and reliance on an official supply chain meant careful negotiation with superiors for desired resources (cf. Masclus). Although opportunities were present (as seen in the Vindolanda tablets) for the improvement of diet through trade, these transport connections could be tenuous, and so the fort community would have been, for the large part, reliant on the grain supplied in rationed quantities through official supply networks. Feasts put this relationship into focus, as the military hierarchy was laid bare for the sake of the community, and the claim of the 'greedy' military institution on the bodies of the soldiers was emphasised.

5.6.1. *'Souvenirs': creative exchanges on the northern frontier.*

Over the course of this chapter, I have analysed the material culture of the fort communities of northern Britain in three broad areas of interaction. This has revealed the fort community to be effectively insular in relation to surrounding native populations, sustaining economic and social connections through long distance trade and literate communications, and reliant, for the most part, upon skills and resources drawn from within the fort and *vicus*. The limited evidence for Roman goods in local British settlements supports this impression.

However, the military garrison of Roman Britain is also associated with a distinctive art style that incorporates non-Roman artistic forms and methods, including highly stylised approaches to the representation of human and animal forms, and the use of distinctively 'Celtic' materials such as blue enamel (Butcher 1976). These art styles likely arose from the interaction of members of the Roman military with native craftsmen, who established a distinctively British approach to Roman material culture that incorporated elements of both these traditions (cf. Henig 1999, Künzl 2008, 2009, 2012b, Allason-Jones 2002:823). This wave of innovation was fuelled by an incoming wealthy population interested in the display of wealth through portable material culture (Garrow and Gosden 2012:33).

The subject of art has been a subject of division between prehistorians and Romanists (cf. Wheeler 1964:216-7, Hennig 1999:150). Certainly there appears a world of difference between the austere, realist, monochrome marble sculptures of Rome, and the abstract, curvilinear, strongly coloured La Tène metalwork of Iron Age Britain. This is a misleading modern impression. Brightly coloured paints were used in Greece and Rome on sculptures (cf. Brinkmann 2007), and there was certainly a Roman taste for distinctively decorated items of dress and tableware (Swift 2009:107). I argue here that the adoption of 'Celtic' art styles in Roman contexts was a distinctive part of the culture of the northern frontier (Garrow and Gosden 2012:289). The artefacts discussed were small enough to be transferred out of the region, yet will have retained the associations of place for the bearer. As such, they may be considered 'souvenirs' of life in northern Roman Britain that explicitly indicated a connection to this region.

5.6.2. *Dragonesque brooches.*

Two distinctive categories of Romano-British artwork associated with the Roman military stand out from this emerging artistic trend during the first two centuries of the Roman

occupation. The first is that of the Dragonesque *fibulae*, brooches that combined a Roman concern with ornate jewellery with native British enamelling and abstract animalistic design, which originated somewhere within Brigantian territory (in or around Yorkshire) in the north of England and that have been frequently found on military sites (cf. Bulmer 1938, Feachem 1951, 1968, Hunter 2008, 2010; for enamelling in Roman Britain: Künzl 2008, 2012; *fig.* 5.29). The brooch was an apparent development of an S-shaped brooch distinctive to the Yorkshire region (two third century B.C. examples were found in a burial at Wetwang and in a nearby settlement; Hull and Hawkes 1987:168, Hunter 2008:96). However, this early form was plain copper alloy. The addition of enamel, and the increased detail creating the animalistic impression associated with the Dragonesque brooch form, are a product of the Roman conquest (Hunter 2008:96).

Figure 5.29. Dragonesque brooch, first/second century (after British Museum 2013).

Dragonesque brooches have been found across Britain but are especially associated with the military, in which context they are also found on the continent, as part of the diaspora of British auxiliaries and with Germanic veterans in the Rhineland (cf. Ivleva 2010). It has been argued that these brooches were worn to indicate a non-Roman identity, continuing a trend for enamelled brooches that originated in the Late Iron Age (Jundhi and Hill 1998, Hunter 2007:289), but this must be contrasted with the military appropriation of these items and their widespread distribution around the province of *Britannia*. Hunter, in his recent reappraisal of the proliferation of the Dragonesque brooch utilising Portable Antiquity Scheme data, identified two different patterns of usage of different subcategories of the Dragonesque

brooch on military/urban sites and on rural/native sites, indicating a deliberate adoption of this class of artefact (2008:101).

As functional items, their use by soldiers (or other members of the military community) may be incidental, but it may also symbolise a personal connection with British craftsmen, and, by extension, to the province itself. On the northern frontier, the use of distinctive forms may have sent a recognisably coded message about the identity of the wearer; away from the frontier, the Dragonesque served in itself as a symbol of military life, utilising a distinctively Romano-British, composite art form. This style is also visible in the embellished terrets of Romano-British wagons, as discussed above (**5.4.6**, cf. Lewis 2015), and again, it may be seen as both sides adopting to new systems of displaying power and status. For auxiliary soldiers and Roman officials from outside the province, the enamelling tradition of Britain may have been co-opted here to provide distinctive trophy items. For Britons, they meanwhile allowed the survival of artistic traditions within communities that had lost much of their political and economic power as a consequence of the occupation. Whatever the significance of these items, that they were present within military sites shows a permeability to the barriers of the fort community as expressed through material accoutrements; as it did for the British brooch forms that had adapted to Roman tastes for ostentatiousness.

Brooches could however only communicate so much about the identity of the wearer; the Dragonesque brooch would have required some familiarity on the part of the viewer in order to understand its significance. The final group of artefacts addressed in this thesis make their connection to the northern frontier far more explicit, and strongly indicate a greater significance of this 'Romano-British' decorative style.

3.6.3. *The 'British pans'.*

The second category of 'souvenirs' is that of the 'British Pans' (Breeze 2012a); these are the Rudge Cup (*RIB* II.2.2415.53; Allason-Jones 2012), the Amiens *patera* (*AE* 1950: 56, Huergon 1951, Maheo 2012), and the Ilam pan (PAS 2003, *AE* 2004: 857, Jackson 2012). These three vessels, although recovered from very different areas, each carry an inscription naming a series of forts along the western end of Hadrian's Wall (see *tab.* 5.7), and are assumed to have been souvenirs belonging to soldiers who had been stationed at forts on this stretch of the Wall (Heurgon 1951:24; cf. Breeze 2012c). They are also decorated with a highly distinctive artistic style, based upon geometric and floral patterning, and the use of a crenellation-effect design, although the latter probably represents the gates of forts rather than

the design of the top of the wall itself (Breeze 2012c:109; additional vessel fragments from northern Spain, Bath and Yorkshire can be added to this sequence on this basis, although they lack text: Breeze 2012b:4-7).

Figure 5.30. The Ilam Pan (after PAS 2003).

The pans performed a common function as drinking vessels; perhaps for use with mulled wine, that may have served to remind old soldiers of their time in service on Hadrian's Wall (Künzl 2012:18). Alternatively, they may have been had a ritual usage, being used to pour libations or collect water from sacred springs (Jackson 2012:59; cf. **III.7.99**). Although the pans bearing text are directly associated only with those forts in the west, the pans without may potentially have been sold along the full length of the 'Aelian' Wall (2012:20; Jackson 2012:45).

Vessel	Inscription	Forts Identified	Source(s)
Rudge Cup (bowl)	*A Mais Aballava Uxelod(un)um Camoglan(na) <s> Banna* or *…Camboglan(ni)s Banna*	Bowness, Burgh-by-Sands, Stanwix, Castlesteads, Birdoswald.	Abbaye de Daoulas 1993:92, *RIB* II.2415.53
Amiens *patera*	*Mais Aballava Uxelodunum Cambogla[ni]s Banna Aesica*	Bowness, Burgh-by-Sands, Stanwix, Castlesteads, Birdoswald, Great Chesters.	Heurgon 1951:22.
Ilam Pan (*patera*)	*Mais Coggobata Uxelodunum Cammoglanna Rigorevali Aeli Draconis*	Bowness, Drumburgh, Stanwix, Castlesteads, [on the line of the Aelian Wall, for/by Draco *or* on the line of the Wall, for/by Aelius Draco]	PAS 2003

Table 5.7. The inscribed cups of Hadrians' Wall.

The Ilam Pan (*fig.* 5.30) has the most distinctive decorative pattern of the 'British Pans', with a pattern of repeated roundels with a swirling 'comma' motif (Jackson 2012:47). This 'whirligig' pattern was typical of La Téne art, and is especially reminiscent of the decoration

of British Iron Age bronze mirrors from the south of Britain during the first centuries B.C. and A.D. (Jope 2000:381, Joy 2010:25-6). As such, it may be seen as indicative of the continuation of a native tradition of decoration, albeit one which originated in the south (although as we have seen with Regina (**3.2.2**), there was certainly movement to the north of the province). In contrast to the Amiens and Rudge Pans, which were 'off-the-peg' items featuring relief-cast inscriptions, the Ilam Pan was engraved at some point after production. This was therefore an artefact that began life as a decorated vessel (perhaps with some greater social significance to those who recognised the decorative scheme), but which was at some point converted specifically into a souvenir item for Hadrian's Wall (Jackson 2012:58). It has been argued that the Ilam Pan was the earliest of the 'British Pans' to be so detailed, on the basis of the names of the forts provided; the other vessels were imitators of this type, with the change from the roundel pattern to the crenellations perhaps intended to confirm the reference to Hadrian's Wall (Breeze 2012c:107). Whoever made the Ilam Pan, it seems most likely that the other Pans were made by a craftsman living close to the forts of Hadrian's Wall, who was aware of the importance of the distinction of individual forts; they would also have been well positioned to sell to soldiers in the region (2012:108). It remains an open question exactly when they were made, although some period between the construction of Hadrian's Wall and the return following the abandonment of the Antonine Wall is all but certain (cf. 2012:108).

With the recognition that mirrors contained a significant social power in their own right (cf. Giles and Joy 2008, Giles 2012:155-6), there may also have been a continued association on the part of the craftsman between the choice of pattern and a ritual significance for the Pans. The reflective properties of the mirrors may also be referenced in the consistent association of these items with bodies of water, a pattern of association also seen with Iron Age mirrors (Aldhouse-Green 2004, Giles and Joy 2008:25, Joy 2010:39). The Ilam Pan was deposited near the River Manifold, which is notable for disappearing beneath the ground for long stretches at a time (2012:41-2, 59). The Rudge Cup came from a well in a possible Roman villa in Wiltshire (2012:59, Breeze 2012b:1), whilst the Amiens Patera was found by a household shrine, near to a room with a hypocaust and bath (Jackson 2012:59). The Bath Pan, connected to this series by its crenellated decorative pattern, was deposited in the Sacred Spring of the Roman baths at Bath; its handle bore a dedication to Sulis Minerva, the goddess of the town (Breeze 2012b:6, 2012c:110). If these vessels were used to hold water during religious ceremonies, then a direct association may have been made, by the user or craftsmen,

between the smooth surface of the water (or the curvilinear art on the exterior of the Ilam Pan) and the reflective face of the Iron Age mirrors (cf. Jope 2000:138, 140; for catoptromancy in the Greco-Roman world, see Addey 2008). The broken handles of the Ilam Pan and Rudge Cup may further connect these items to the Iron Age practice of damaging or 'wounding' votive items before deposition (cf. Garrow and Gosden 2012:128).

The limited data set for this class of artefact makes firm answers difficult to establish. However, this was seemingly a popular vessel type that communicated an identity based on the fort community of Hadrian's Wall to a wider audience. For the original vessel form (the Ilam Pan, or one like it) to have succeeded, it must have been a publicly used and acknowledged item; a role as either a drinking vessel or for pouring ritual libations would have sufficed for this purpose. The Pans were meaning-laden items of potentially ritual significance; the decorative scheme (especially in the case of the Ilam Pan) may have emphasised this function and made the vessels all the more striking in this role. The Pans may be in essence a syncretic adaptation of British and Roman religious practices, acting as intermediary objects between the human and supernatural worlds – indicating, on the part of their owners, a respect for both traditions.

Like the Dragonesque brooches, they also served as ostentatious reminders, to themselves and others, of time spent in service on the northern frontier of Roman Britain. In this sense, they can also be considered alongside the items of militaria retained by veterans returning to the Rhineland (particularly in the first century A.D.) and subsequently deposited as votive offerings (Nicolay 2007:177-206). The use of 'souvenir' items in this role suggests that material culture connected specifically to the military community of the north of Britain can also be considered as divergent components of an otherwise broadly consistent military identity (cf. Hunter 2008:135-6). It should be emphasised that these were not necessarily exotic items to the owners, but rather objects that emerged from a practice that was both Celtic and Roman in origin, and thus intrinsically local and familiar (cf. Garrow and Gosden 2012:305). Just as militaria retained by the veteran could be used in public display to demonstrate their status, so too could these items sustain a social significance. Once this function had been fulfilled (perhaps after the death of the owner), these items lost this social significance and could then be deposited (cf. Nicolay 2007:206). Up to that point, they formed part of a distinctive identity package established by the 'greedy institution' of the military; veteran, Roman citizen, and part of the garrison of the province of *Britannia.*

5.7. Material Culture Discussion.

In this chapter I identified the reflexive relationship between members of the fort community and material culture with regards to the construction, display and maintenance of identity. By following a discrepant approach to identity, examining the different categories of material culture reveals connections between community members that extend beyond simple military hierarchies. These categories – militaria, industry, and domestic – constituted much of the day-to-day lives of the inhabitants of the fort community and reflect broader social ideologies. This approach has shown a wealth of ideological baselines through which identity could be established, balanced and maintained. Importantly, it has emphasised the importance of other domains of activity in positioning fort communities as communities, united by shared activities, tastes and interests, and also isolated from neighbours by means of firmly entrenched codes of bodily appearance, behaviour, and tastes. A key outcome of this analysis has been to reveal the social connections between the fort and the wider non-military community, and to show how boundaries between these groups were delineated within these arenas of activity. My analysis also revealed that although the 'greedy institution' of the military enacted formal modes of control, in the process establishing a fixed basis for identity, these co-existed with other, more subtle but still important means of displaying individual aspects of their identities. Thus soldiers could distinguish themselves through their camp dress, arms and armour, through appearance and usage. Distinctive skills could also be forefronted in arenas of craftwork (drawing upon social and economic connections extending beyond the social and physical boundaries of the fort community). They could also retain (or develop) distinctive dining practices. These enabled the auxiliaries to retain a distinctive character, to a degree reflecting their ethnic origins and their 'martial race' role (**2.4.4**). Some influences of local artistic traditions can be seen in certain categories of find, perhaps connected to a specifically regional identity emerging within the military community of the northern frontier. Otherwise, the changes in military equipment and other material forms of expression over the period covered emerged outside the province. Within Britain during the Principate, the 'greedy' institution was reluctant to absorb new influences.

When it comes to assessing identity at the individual level, such discussion can only go so far and some limitations in this approach must be acknowledged. There are still questions which the material culture is ill-suited to answer. Perhaps the greatest problem when discussing work within the fort community is the division of labour, as it remains virtually

impossible to distinguish between the work of soldiers, slaves, and civilians in certain areas. Part of accepting the presence of these latter groups within the fort community is also losing some degree of certainty over what activities were performed, by whom, and why. This applies especially to domestic activities such as grinding grain, cooking food, brewing beer and so forth. Associating any of these firmly with any one subgroup within the fort community is laden with difficulty, as even common soldiers may have had access to slaves, servants or family members who may have contributed in some regard to sustenance in these areas. Other areas of activity – especially connected to militaria – are much less ambiguous, in terms of performance, but further questions need be asked of who viewed these displays, and what the intended reaction was meant to be. This debate is typically framed in terms of Roman-native interaction (cf. Buxton and Howard-Davis 2000:83, Bray 2010), but the role of martial displays within the military community should also be considered. As discussed in chapter two, a power differential was in play in this context that underpins martial identity; the non-combatants emphasised the exclusivity of martial identity through an inability to participate, yet also depended upon the economic system the Roman military enabled.

Analysing the use of the material culture of the fort community within the context of the Roman military as an institution enables us to better understand the significance of social factors in these processes. As discussed in chapter one, Roman military scholarship has broadly turned against the application of the 'total institution' model to fort communities (**1.3.3**). In its place has emerged models such as the 'occupational community' as favoured by Haynes (2013:10-14), and this chapter has explored some of the characteristic features of the Roman auxiliaries which relate to this model. Each fort community had at its core a vocational purpose, and the military role of the soldiers formed the basis of their individual identities, constructed in relation to those with whom they came in regular contact. Where Haynes applies this term specifically to the soldiers (2013:10-11), I argue that both combatants and non-combatants were connected by the broader contexts of work that took place within the fort community, that saw soldiers, slaves, traders and families interact to ensure the continued function of these communities. Even as soldiers based their martial identities in opposition to non-military members of the fort community, they likely relied upon these to carry out tasks that were below their status to carry out (in doing so boosting their own status). This can be seen in interactions through the Vindolanda tablets between soldiers and traders or family members, in the acquisition of foodstuffs, clothing and other resources. The significance of these non-combatant populations – and the incorporation of

diverse craft and industrial skills within the fort community – lies in how they enabled the broader military community to function with only limited interaction with non-military, local populations.

This limited interaction is a crucial point. Over the course of this thesis the fort community has been shown to exist as an insular, institutional population, governed by a strict social hierarchy. Yet although restrictions typical of the 'total institution' were in place, visible in the firm delineations of the fort walls and the exacting nature of military discipline, daily life was not characterised by overbearing control of members by authority figures. Instead, soldiers were offered the means to pursue and demonstrate status within the military community (in the form of wealth and corresponding social status, and, for auxiliaries, citizenship), and discouraged from forming connections outside of it. These actions are typical of the 'greedy institution' that exerts its omnivorous claim upon its members through social incentives and discourages the forming of connections outside of itself (cf. Coser 1974). Symbolic boundaries operate alongside physical ones, in the form of exclusive access to forms of material culture, or exclusory rituals and practices, as can be seen across the categories discussed in this chapter. These symbolic boundaries are only rarely broken in the form of interactions with locals, and the role of 'souvenirs' are of particular interest in this regard. Through these, some form of regional identity may be surmised, based on an amalgamation of Roman and local artistic forms and techniques. Otherwise, there are few exceptions to the specifically Roman character of the military institution; the consumption of beer at Vindolanda stands out in terms of dietary practise, for instance. Otherwise, social connections and statuses originating outside the Roman world were given an official veneer. This is most evident in events such as the *Hippika Gymnasia*, which demonstrated the incorporation of non-Roman martial traditions into a traditional Roman social event. Even our evidence of interaction with families, a form of interaction 'greedy institutions' normally seek to negate, is only made possible through Latin literacy and official communication networks.

Chapter six. Conclusions, reflections and future research directions.

6.1. *Conclusions.*

Over the course of this thesis, I have argued that the forts of the northern frontier during the first two centuries housed complex communities consisting of a wide range of individuals, each with discrepant identities (cf. James 1997, Mattingly 2006). In contrast to the traditional paradigm of Roman military scholarship, this approach has incorporated the study of both military and non-military activities and interactions within the fort community of soldiers and civilians alike, rather than establishing a total divide between these two realms (cf. Birley 2010). The intention in this approach was to resituate soldiers as active members of diverse communities, who defined themselves in relation to others using a range of architectural, material and textual resources.

By interpreting the Roman military as a 'greedy institution' (Coser 1974, Segal 1986), I have incorporated modern sociological theory into this debate and opened up avenues of investigation regarding the relationship between soldiers and non-soldiers within fort communities on the northern frontier. This approach retains a strength of the 'total institution' model (Goffman 1968) in that it allows us to consider the exercise of power over soldiers within a rigid bureaucratic hierarchy. The 'greedy institution' model enables us to incorporate social control as well as physical containment into our understanding of the Roman military. This was manifested through 'greedy' claims on the identities and activities of the soldiers, which involved transforming their identities through social incentives and routinised behaviour, as well as their isolation from pre-existing social institutions. I also sought to qualify this claim by examining competing cultural and social demands on the soldiers, and concessions made within military organisation.

Chapter one themes.

In the first chapter, the concept of community identity as contained within symbolic boundaries was introduced (cf. Cohen 1985). This principle established the role of discrepant identities within the context of the Roman military community, and the need for these to be actively reconstituted over time. By understanding communities as consisting of multiple layers of identity - in other words, not simply defined by military membership alone – it was established that a more holistic view of life within such communities was required. This meant looking at the whole population of fort communities from the perspective that identity

is a relational construct, rather than focusing solely on the military activities of the soldiers themselves. With this in mind, I argued for the applicability of modern sociological theories to Roman fort communities, as these enable us to better understand the relational nature of martial identities, as expressed at the level of the *contubernia* (utilising primary group theory) and at the institutional level (through the 'greedy institution' model). These were the foundation for my subsequent analysis of identity within the Roman military.

Chapter two themes

My argument then turned to the historical and cultural context of the Roman military and its archaeological investigation. Drawing upon post-colonial and gender theory alongside sociological and ethnographical studies of contemporary militaries, the construction of identity within the formal institution of the Roman military was addressed. This approach repositioned the Roman *auxilia* as a broader community subjected to and controlled by a number of external cultural pressures that affected constituent members in a number of different ways depending on factors such as rank, status, ethnicity and gender. This chapter focused especially on the role of power and domination in defining identity boundaries at a global scale (through 'martial race' ethnographies and recruitment practices; cf. Enloe 1980) as well as local (through discussion of military masculinities and the role of women and subordinate males in militarised communities; cf. Enloe 1988, 2000, Higate 2003). These societal expectations affected the establishment of boundaries within fort communities and thus represented an imposition upon the agency of their inhabitants that should be recognised as affecting the archaeological record of these sites. This physical and social control was argued to be representative of a 'greedy institution'.

My analysis of gender roles and performance within this chapter addresses a long-standing weakness of Roman military scholarship, which is its failure to meaningfully engage with gender theory despite a wealth of appropriate material to draw upon. Where gender is discussed, it is often solely through the 'sexing' of small finds, entailing the limited identification of women and their role within military communities (cf. Driel-Murray 1997, Allison 2006b, Becker 2006, Casella 2006, James 2006, Sørensen 2006, Brandl 2008, Greene 2011). The identity of the masculine soldier in this framework is homogeneous and ubiquitous, only rarely challenged by the presence of 'female' items of material culture which can be explained away by the soldiers adopting a hitherto unexpected domestic role; the discussion of sewing kits (e.g. James 2006:34) falls into this category. Yet Roman literature

provides a strong basis for problematising this homogeneous perspective on Roman masculinity (cf. Casella 2006). By treating masculinity itself as diverse, multi-faceted and occasionally contradictory, the relationships between soldiers and other members of the fort community can be better understood; although this does include women, it also includes boys and men who may have been seen to be insufficiently masculine, especially slaves, servants and other 'non-combatants'. It was against such groups as these that the soldiers could demonstrate a hyper-masculine identity, based on a form of *virtus* that soldiers could strive to attain (cf. Phang 2008). This entailed the consolidation of an exclusionary masculine identity, defined by the behaviour and trappings of the military lifestyle. This argument again was related to the 'greedy institution' model, in which members are driven to voluntarily accept a subservient role within the military hierarchy.

These differentiations in identity may have been exacerbated by pressures to conform to particularly ethnic stereotypes as well. In the last part of the chapter the ethnic identities of frontier populations from which auxiliaries were drawn are addressed, and discussed in relation to Roman ethnographies (cf. Enloe 1980, Driel-Murray 2003). It is clear from these that during the Principate, *auxilia* within the Roman military were regarded as little removed from the barbarians beyond the frontier. Actively demonstrating a Roman identity, by conforming to the 'greedy' cultural expectations of the Roman military was therefore of great importance to soldiers.

None of this is to say that Roman soldiers or other members of the fort communities were entirely denied agency, nor that they did not freely choose to adopt Roman cultural trappings as a means of earning security and status. Even 'martial races' could benefit through their exploitation; as conquest had deprived young men in these societies from demonstrating appropriate masculine and martial behaviour, military service offered new ways to live these gendered identity. All this establishes the important principle that fort communities were distinctly institutional environments affected by a broad range of cultural factors experienced in different ways by different members, and that an appreciation of the role played by non-soldiers is essential to understanding identity as a whole at these sites.

Chapter three themes.

In the third chapter, I analysed evidence for individual identities within fort communities in the north of Britain, as communicated through epigraphy and through letters. It was through these that discursive practices (introduced in the previous chapter) found expression by

individuals. These forms of expression had a strongly Roman character – a bias in no small part affected by the lack of alternative writing systems in most cases. In some cases, this emphasis on Roman cultural values was an overt attempt to negotiate a better position for an individual or his family; this could be seen in the letters of patronage, or in the *Reitertyp* tombstones which strongly distanced the deceased from his non-Roman (or barbarian) background. In other cases, the utilisation of Roman systems of communication enabled personal relationships to be sustained over great distances, enabling the formation of a cohesive military community across the empire, yet also the maintenance of social and familial bonds with distant friends, comrades and families. This chapter revealed both the strength of the 'greedy institution' and also some of the concessions it made to the lives of the soldiers. Although soldiers were entered into a rigidly hierarchical and bureaucratic organisation, they also gained the opportunity to maintain connections with people outside the military community, through the sending of letters and other packages (as seen in the Vindolanda tablets), and the formal acknowledgement on tombstones of familial and ethnic connections. Although this implies a lessening of the grip of the 'greedy institution', I also noted that this remained possible only through the adoption of Roman cultural practices, such as Latin literacy and the military supply infrastructure; both of which were possible only through membership of the military institution. This chapter identified and analysed the self-ascribed identities of members of the military community in the north of Britain. Over subsequent chapters, I analysed the underlying principles and performances of these identities.

Chapter four themes.

In this chapter, I traced the inculcation of architecture within Roman military practice, from the process of castrametation, which served as an equivalent to modern drill as a means of instilling military discipline (Phang 2008:69), to the inhabitance of an institutional structure based upon principles established within Mediterranean urban ideology. This analysis of social space and the ideology underpinning it was based on historical narratives on the Roman army at war, and on the archaeological evidence of fort sites from across Britain (focusing also upon interpretational issues present within prior evaluations of the 'standard plan' fort and its constituent components).   This dual approach provided a basis for discussing the character of the Roman military as an institution, as well as for critiquing previous absolute interpretations of the use of fort buildings by different members of the fort community.

The outcome of this approach was the resituation of the *auxilia* within a form of architecture with a long-established tradition, over which they themselves had had little influence, nor the possibility to do so. The issue was thus raised of how these camps and forts structured the lives of auxiliary troops recruited from non-urbanised regions of the Empire, who would have lacked this familiarity with urban layouts. As new members of the military community learned how to live in forts, they implicitly adapted to Roman urban environments – from bathing techniques to the use of larger, elaborate housing in prominent locations as a means of demonstrating status. These transformative processes are a telling aspect of the 'greedy institution; rather than being actively forced into particular behaviours in relation to architecture, soldiers (and members of the fort community) were left to adjust. The 'standard plan' fort can therefore be viewed as an active constituent of identity, replicated in common (if not identical) form across the military community.

This chapter established the physical setting for everyday life within the fort community, as I concluded that despite variation between sites, the 'standard plan' remains a useful tool that allows us to posit a common underlying ideology to the architecture of fort sites in this region. This provided a basis for my analysis of activities based upon small finds analysis in the net chapter.

Chapter five themes.

In the fifth chapter, I addressed the use of material culture in defining and demonstrating identity. As established in the first chapter, Roman archaeologists have only recently begun to engage with small finds at a theoretical level (cf. Cumberpatch and Blinkhorn 1997, Gardner 2003b, 2007b, Gosden 2005, Hingley and Willis 2007, Hurcombe 2007). Here, the role of small finds within social practices in Roman military communities was addressed. Developing upon and adapting the approach of Allason-Jones (2002a, 2002b), this examination of small finds reports from northern frontier sites focused on three categories of evidence: militaria, craft and industry, and consumption, each providing an insight into a different form of discursive practice. The importance of this approach in a holistic interpretation of the fort community was demonstrated through a study of Vindolanda's earlier levels, which contained evidence for each of these categories within singular contexts.

The data for this chapter are taken mostly from published site reports (with notable finds recorded in **Appendix III**), but, utilising and developing upon the methodology of Allason-Jones, reference was also made to inferred and textually sourced activities within the Roman

fort environment (cf. Pearce 2007). By expanding the discussion of material culture usage beyond what has survived archaeologically (in a qualified manner), discussion of activities more representative of the whole community was made possible, something especially important in the context of food and consumption where little organic material has survived.

Militaria is a well-worn topic within Roman military archaeology, with recent publications (e.g. Bishop and Coulston 2006, Nicolay 2007) providing detailed discussions of the development and usage of different armour and weapon forms. The emphasis here was on how, and in what contexts, militaria was worn, used and displayed – and to whom it was displayed. The work of archaeological re-enactors has proven extremely useful in this regard, providing a means of testing hypotheses over issues of reconstruction and usage over time. Armour and weaponry required a transformation on the part of the body of the soldier as he became accustomed to bearing heavy weights, which will have affected his formation of social bonds with his fellow soldiers, as did his training in particular skills and weaponry. Armour and weaponry were also considered as means of communicating power and identity, of both collective bodies and as individuals through the use of decoration and specialised construction techniques. The display of weaponry was also connected to the discussion in the previous chapter of locations within the fort, with particular regions and buildings associated with different forms of social gatherings. Militaria displayed the essential boundary between membership of and exclusion from the Roman military. As such its symbolic significance to the 'greedy institution' of the military was paramount. However, it did not constitute the only means by which status and identity could be performed and displayed within the fort community.

In the second section, craft and industry within the fort communities was considered. These activities were essential to the continued operation of auxiliary forts and in most cases were carried out by soldiers themselves. It was through such activities that the fort was connected to the wider trade networks of the province (in order to acquire necessary raw materials), and also to its immediate environment, exploited for resources such as wood for construction and fuel. As discussed in the first chapter, the Roman military favourably recruited men with professional skills, such as metal- or leatherworking, which could be utilised within the fort community. Such was the nature of craftwork within the fort environment that a few skilled craftsmen could oversee hundreds of workers at a time (certainly soldiers; the involvement of non-combatants in these industrial activities remains obscure). This is worthy of contrast with the relatively low status of craftsmen within the broader Roman world (cf. Burford

1972, Strong and Brown 1976). Some crafts (such as textile working) will almost certainly have utilised female labour, yet situating these within the fort community – much less identifying the practitioners involved – remains problematic (cf. Brandl 2008). Focusing on this aspect of identity did however reveal a parallel means of displaying wealth and power in the context of the Roman military, that did not use overtly militaristic signs and symbols; the collective labour involved in craft activities bonded groups together in the manner of castrametation, and the hierarchy of skills and knowledge existed alongside military rank and prestige (cf. Phang 2005). The presence of workshops within the *praetorian* of Vindolanda and Carlisle demonstrated that proximity to manufacturing was not considered unsuitable for these elite contexts.

The final section of the third chapter addressed items relating to consumption; in particular, the selection, preparation and presentation of different forms of foodstuff (due to the close parallels in raw materials used, medicines were also discussed in this section). Following Pearce (2007), the foodways of fort communities on the northern frontier was examined, with particular attention given to the Vindolanda tablets that contained a wealth of information in this regard. The Roman military diet was one that developed in tandem to Roman concepts of austerity and appropriate display of *virtus*, as demonstrated in the behaviour of Roman emperors seeking to inspire their troops. Certainly the core diet of the auxiliary soldiers of the north was plain, based on a Mediterranean diet of grains and vegetables, acquired locally or through long distance trade and distributed as rations. By utilising trade, personal connections, localised industry or even through hunting, the diet of individual members of the fort community could be supplemented in a number of ways. The range of foodstuffs attested within archaeological records and in the written evidence from Vindolanda demonstrated that a range of foodstuffs were used in different contexts, as a means of demonstrating status and exerting influence through 'patron-role' feasts (in the case of the prefects holding formal dinners), or through the selective consumption of foodstuffs representing ethnic tastes (e.g. the preference for beer seen in the presence of brewers at Vindolanda and in tankards at Corbridge and Carlisle; **III.7.114-5**; Allason-Jones and Bishop 1988; cat. no. 280).

If chapter four analysed the training and orientating of the auxiliaries, chapter five evaluated how the auxiliary body was armed, dressed, fed and cared for. In each of these spheres, I have analysed how the 'greedy institution' created certain kinds of martial bodies, through their distinct differences from civilians, and also internal divisions in rank and status, origin and ethnicity. The examination of small finds here revealed communities that engaged little

with the populations of local native settlements, other than tangential trade arrangements. This is to be expected from the context of a 'greedy institution' that sought to isolate its members from local contact and emphasise Roman behaviours and practices. A small caveat to that principle could be found in the last category of material culture however. These were the 'souvenirs', decorative items that alluded to ineraction with native craftsmen in this region. These vessels combined overt references to Roman sites and artefact types, and showed that Roman soldiers did not simply impart Roman culture upon a region, but that they also adopted local art and belief systems into their own practices, and retained these symbols even after leaving the region. They are a rare allusion to contact outside the boundaries of the fort community, and a reminder that other evidence for such interactions will rarely survive archaeologically. These items were discussed in the context of the appeal of the military to those of peregrine status, without Roman citizenship and whose traditional means of demonstrating identities were either no longer possible or no longer effective. The use of fusion in these items reflects the adaptive nature of the identity of auxiliaries and their dependants, allowing them to reference their origins while meeting the demands of the 'greedy institution' of the Roman military.

Outcomes and limitations.

This thesis set out to examine the fort community in a holistic manner, treating the Roman military of the northern frontier of Britain as composed of a heterogeneous mix of individuals with greatly different roles, yet still part of a cohesive community existing outside the civilian domains of the city and countryside. This approach was rooted in recent explorations of military identity (e.g. those of Goldsworthy, James, Mattingly, and Phang), but developed upon these by addressing both the subaltern role of the auxiliary soldier within the Roman military as a whole, and the roles of subordinates within the fort community in reinforcing martial identities through the establishment and display of symbolic and material barriers. It also addressed alternative identity and power relationships within the military community demonstrated through non-military activities, such as skill in crafting or access to differential food sources, and argued for the relative importance of these within daily life. Although it is not possible to recover the wealth of mundane details achieved by modern military ethnographers through direct interaction (who are thus able to record private conversations and observe personal rituals; e.g. Enloe 2000b, 2004, Basham 2013; cf. Streets 2004:205), such an approach brings us closer to reconstructing the negotiation of identity with Roman auxiliary military communities.

The arguments presented arose from a synthesis and analysis of a broad range of research contexts and archaeological data sets (including text and sculpture, architecture and material culture), resulting from the need to address identity from global to local scales while maintaining the focus on the individual. It was firstly necessary to define the concept of military identity within the Roman military community and to interpret how this understanding affected individual members. This was done through the application of sociological and gender theory, an approach with which Roman military archaeologists have only recently begun to meaningfully engage (cf. James 2006). I argued that the perspectives and approaches utilised in these studies enable a holistic approach to fort communities, enabling us to consider simultaneously combatant- and non-combatant roles.

Some selectivity had to be used to ensure the work could be presented in a thesis format. It was not possible to exhaustively examine the small finds reports of each site, and certain key categories (especially pottery) had to be excluded from the discussion of domestic material culture in favour of foodways. The study of craft and industry was similarly restricted. The potential certainly exists to return to these issues in further research, in order to situate both fully within the lived experience of the Roman military. Similarly, the evidence for religious practice on the northern frontier (surviving in the many altars from the region) was little addressed; incorporating this would be another aim of subsequent research.

Other problems related to the variable survival of artefacts in different environmental conditions (leading, for instance, to a bias in the discussion towards the artefact-rich lower context layers at Vindolanda), and to the late development of stringent recording and publication practices of site reports. The large catalogue of small finds from South Shields (Allason-Jones and Miket 1984) was unusable due to the loss of contextual data for each item prior to preparation for publication, for instance.

6.2. *Implications for future research.*

This thesis fits into an emerging theme within Roman military studies of making increasing use of theories developed within other social sciences to reassess archaeological and historical data. These approaches to fort communities (cf. Goldsworthy and Haynes 1999, James 1999, 2001, 2002, 2006, 2011, Driel-Murray 1995a, 1997, 2003, Mattingly 2004, 2006, 2011, Gardner 2007a) have moved us away from the 'war machine' interpretation of the Roman military and repositioned soldiers as complex, active agents within an institutional hierarchy. They have also established that the military community consisted of multiple non-

combatants; women, children, slaves, servants and so forth, who may have lived in the *vicus* or even within the fort walls (James 2001:85-6). I have argued in this thesis that we have not fully explored why the military was such an effective recruiter, nor how it ensured the commitment and loyalty of troops from diverse ethnic origins. This thesis has explored the practical and ideological means through which this affiliation was secured. Future investigations of the fort communities of the northern frontier should certainly incorporate these into their analysis of the occupation of the sites (cf. James 2006:88).   The need for a more complex understanding of the relationship between combatants and non-combatants within fort communities is recognised within the Research Framework for Hadrian's Wall, the current guide to best practice:

> '8.1. Terminology.
>
> Attention needs to be given to developing a terminology that helps research to move beyond the binary concepts inherent in much past work (challenging oppositions such as 'Roman-native, military-civil, mundane-religious, male-female etc.).'
>
> (Symonds and Mason 2009b:51)

This thesis has gone a step further in this regard and questioned how these broad categories of identity within the fort community may have been further implicated into Roman imperial ideologies. This was especially relevant in the case of auxiliaries whose ethnic identification may have been seen to exist in a state of flux, subjected as they were to a military system that valued martial traditions but also imposed a way of life defined through participation in culturally Roman political and social events and practices, along with occupation of the ideologically urban architecture of the fort. The lived experiences of inhabitants of the fort communities were not lived wholly in isolation of one another. For the soldiers to demonstrate an appropriate Roman (or even native) form of masculinity, it was necessary for there to be members present against whom behaviour could be contrasted; these could be wives or female slaves, or men of lower rank or subordinate function within the community. The performance of identity within communities must be further acknowledged; it is not enough simply to identify men or women, or soldiers and slaves, as present in an archaeological context without also considering the effect that their displayed identity had on each other. The fact that such relationships were an integral part of life within the institutional, quasi-urban fort environs means that relegating such discussion to closing sections of site reports and continuing to treat garrisons and *vicus* populations as inherently

separate (cf. Matthew 2008, Symonds and Mason 2009b:13,15) is a flawed approach. In this thesis, I have argued that the tensions inherent to the 'greedy institution' model enable us to better contextualise the relationship between soldiers and non-soldiers within these fort communities, as well as between auxiliary soldiers and the broader cultural presence of Rome.

As the Research Framework for Hadrian's Wall indicates (Symonds and Mason 2009a, 2009b), there is certainly much potential for further work in this region. Extramural areas around forts are still woefully under-investigated, as are native sites. Such excavations could provide further detail regarding the distribution of material culture and therefore into the social systems of trade, exchange and population movement within this region. Increased collation of data, especially spatial data (cf. Symonds and Mason 2009b) would further open sites to the sort of multi-layered examination carried out here, comparing data from different sites and so building up a stronger picture of differentiation between different garrison and population types. Fort communities were not static in time nor fixed in form between sites. Understanding how garrisons differed in ethnic background or martial display is one prospective avenue of investigation; so too would be the role played by non-combatants within these communities outside of well-documented sites such as Vindolanda (cf. James 2001:88).

Appendix I: Outline of Roman auxiliary organisation.

The *auxilia* (literally, 'helpers') were recruited from non-citizen *peregrini*, or 'foreigners', but could gain citizenship for themselves and their descendants after the successful completion of twenty five years' service (Hassall 2000:332). The names of these units indicate they were raised from tribes on the frontier of the empire or beyond (Southern 2007:143). The auxiliaries were organised into smaller and more versatile units that were better suited than the legions to specific duties. There were six distinct forms of these. The most common was the infantry cohort, organised in a similar manner to the legionary cohort and consisting of either six or ten centuries of 80 men producing total strengths of 480 men - *cohors quingenaria,* or quingenary cohort - or 800 men - *cohors milliaria*, or milliary cohort (Hassall 2000:332; *fig.* I.1). The names for these units seem at odds with their on-paper strengths; in the case of the 'five hundred man' cohort that consisted of 480 men, the difference may be made up by the commanding officer and assorted other experts (Alston 1995:21). The disparity in the thousand-man milliary cohort, which is 200 men short, is harder to rationalise using this logic.

● CENTURION
● OPTIO

■ DECURION
■ SECOND-IN-COMMAND
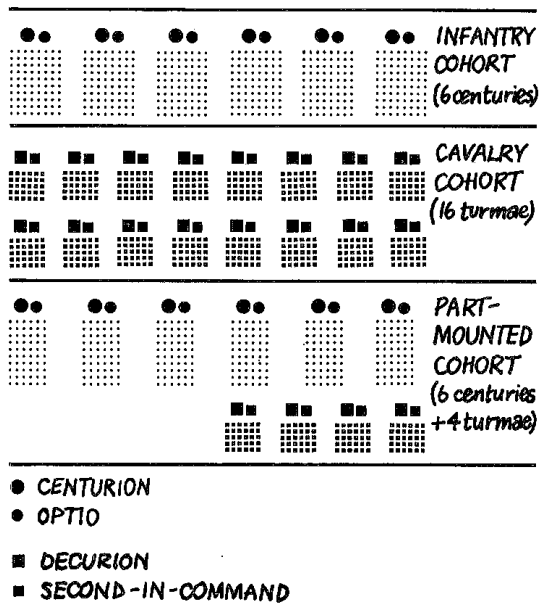
Figure I.1. The organisation of three types of quingenary auxiliary unit. (After Wilson 1980:7, *fig.* 2).

The auxiliaries also provided the main body of cavalry for the Roman military. Regiments of cavalry are referred to as *alae* ('wings') and like the cohorts had milliary and quingenary units. These were divided into *turmae* ('troops') of 30 men, sixteen of which made up a quingenary *ala* and twenty four a milliary *ala*, to produce respective totals of 480 and 720 men per unit (Hassall 2000:333). Finally there were part-mounted units, which consisted of

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both infantry and cavalry soldiers, known as *cohors equitata*. As with the regular cohorts and cavalry, these too came in quingenary and milliary strengths, with the former consisting of six centuries of infantry and four *turmae*, and the latter of ten centuries and eight *turmae* – suggesting total strengths of 608 and 1,056 respectively (Hassall 2000 333-4, Southern 2007:121[1]). Finally, each century and *turma* was further divided into subgroups of 8 men known as *contubernia*, who shared tents whilst on campaign and barrack accommodation when in more permanent quarters; they would also have fought, fraternised and shared food with each other (Hassall 2000:324, 333; Southern 2007:99-100; see chapter one).

2. *Unit Commanders*

The command structure of the auxiliaries resembled that of the legions. Cavalry *alae* and quingenary cohorts were commanded by equestrian prefects, the milliary cohorts by tribunes. These positions are notable for the three-stage order (or *tres militia*) in which they would be taken up by individual equestrian officers in the first and second centuries. Beginning with a three years spell in command of a quingenary cohort, an officer then progressed to the position of tribune (in either a legion, as alluded to above, or in command of a milliary cohort), and from there to command of a cavalry *ala*. The exceptionally talented could then progress to the position of prefect of a milliary *ala*, although such units were extremely rare; there was only one in Britain, the *ala Petriana* at Stanwix (Hassall 2000:335). Beneath the commanders, the centurions served in a similar capacity as their legionary counterparts, as did their *principales* and *immunes* below them. Cavalry *turmae* were individually commanded by decurions, whose subordinates were the *sesquiplicarius* and the *duplicarius* – men on one and half times normal pay, and double pay (2000:335-6).

3. *Centurions*

The centurions of the legion would not necessarily have been of equestrian rank, although the status (and pay) of the position means that commissions to the role would have been highly desirable for young equestrian men, who would have exploited advantageous contacts in the same manner as the senatorial officers (Hassall 2000:327-8; see chapter four). Centuries were named for their centurions, indicating a strong association between them and the collective identity of the unit (Alston 1995:47).

---

[1]   I follow Southern 2007 in not rounding down the cavalry figures as Hassall (2000) has done.

4. *Sub-centurial ranks*

Below the centurions were the *principales*, high status positions that received a higher level of pay than ordinary soldiers, and typically included the *optio* ('chosen man', deputy to the centurion), the *signifer* (or standard-bearer), and the *tesserarius*, an orderly who had responsibility for communicating orders and the daily password (Hassall 2000:329). Below the *principales* were the *immunes*, who were men with particular skills such as artillerymen, armourers, trumpeters and horn blowers, the *cornicularii* (horn-blowers who had taken on the duty of clerks) and many other diverse roles (2000:329). Although these skilled men were not paid more than common soldiers, they were excused the laborious fatigues (2000:330). These roles are discussed further in chapter five.

The status of these roles may be connected to the level of pay awarded to each rank. Pay grades for the Roman military of the first two centuries were established by Domaszewski in 1908 (Domaszewski and Dobson 1967), and later modified by Breeze (1971). During the second century and following the reforms of Hadrian, the pay grades of the sub-centurial troops were relatively clearly established: *principales* received either pay-and-a-half (*sesquiplicarius*) or double pay (*duplicarius*), whilst *milites* and *immunes* received the basic level (Breeze 1971:134).

Rank	*Pay*	*Role*
Miles	Basic	Foot soldiers
Immunis	Basic (excused fatigues)	Technicians and specialists
Principalis	*Sesquiplicarius* (1.5 x basic)	*Tesserarius*, junior staff officers
	Duplicarius (2 x basic)	*Optio*, *signifer*, *imaginifer*, *senior staff officers*.

Table I.1. Pay grades and ranks of Roman troops, legionary and auxiliary (after Breeze 1971:134).

The relative basic pay awarded to auxiliaries and legionaries demonstrates the difference in status accorded to citizens and non-citizens of Rome (see *tab*. I.1). For the *immunes* and *principales* on double- or one-and-a-half-pay the figures can be adjusted accordingly. As Hassall argues, the differential between legionary and auxiliary soldiers was not overwhelming; far more significant was the difference in pay between foot soldiers and centurions, which after a pay increase by Domitian lead to the latter being paid over sixteen times what ordinary soldiers received (2000:329, 336; cf. Alston 1994, 1995:104). The

increase in pay did not reflect an increase in social status on the part of the soldiers as a whole. Rather, it was a pragmatic response to the effects of inflation on the Roman economy; soldiers of the third century were not relatively wealthier than their Augustan predecessors (Alston 1995:110).

Rank	Augustus	Domitian AD 83/84	Severus AD 197	Caracalla AD 212	Maximinus AD 235
LEGIONARY					
miles	**900**	**1200**	2400	3600	**7200**
eques	1050	1400	2800	4200	**8400**
centurio	13500	18000	36000	54000	108000
primus ordo	27000	36000	72000	108000	**216000**
primuspilus	54000	72000	144000	216000	**432000**
AUXILIARY					
miles cohortis	**750**	1000	2000	**3000**	**6000**
eques cohortis	**900**	1200	2400	3600	**7200**
eques alae	1050	1400	2800	4200	**8400**
centurio cohortis	3750	5000	10000	15000	30000
decurio cohortis	4500	6000	12000	18000	36000
decurio alae	5250	7000	14000	21000	42000

Table I.2. Rates of pay in sesterces (after Speidel 1996:66, *tab*. 34; cf. Campbell 1994:20, *tab*. 1). Bold figures attested by documentary or literary sources. Remaining figures are calculated from these.

6. *Auxiliary deployment in Britain*

The auxiliary garrison of Britain was comprehensively identified by Jarrett (1994) and Holder (2003), based on the evidence of historical accounts epigraphy and diplomata. The garrison was not constant over time, but subject to fluctuation as units were raised, dissolved, and moved between provinces. Key moments, such as the diplomas resulting from the wholesale discharge of all men who had served 25 years or more during Hadrian's visit to Britain in the early second century, and the *Notitia Dignitata* of the late fourth century provide snapshot views of the garrison at different moments in time (Jarrett 1994:37, Holder 2003:118). The Hadrianic evidence indicates an auxiliary garrison of around 14 cavalry *alae* and 42 *cohortes*. Three of these *alae* were withdrawn however, likely following the completion of Hadrian's Wall (Holder 2003:118).

Unit type	Unit name	Region of origin	Period			
			Trajan	Hadrian (17.7.122)	Hadrian (122+)	Later
Alae	*I Pannoniorum Sabiniana*	Pannonia		X	X	X
	I Pannoniorum Tampiana	Pannonia	X	X	X	
	I Hispanorum Asturum	Hispania	X	X	X	X
	I Tungrorum	Gaul	X	X	X	X
	II Asturum	Hispania		X	X	X
	Gall Picentiana	Gaul		X	X	X
	Gall et Thrac Classiana cR	Gaul/Thrace	X	X	X	X
	I Gall Petriana cR	Gaul	X	X	X	X
	Gall Sebosiana	Gaul	X	X	X	X
	Vettonum Hispanorum cR	Hispania	X	X	X	
	Aggripiana miniata			X		X
	Aug Gall Proculeiana	Gaul	X	X	X	X
	Aug Vocontiorum cR	Gaul	X	X	X	X
	I Thracum	Thrace	X	X	X	
Cohortes	*I Nervia Germanorum*	Germania		X	X	X
	I Celtiberorum	Hispania	X	X	X	X
	I Thracum	Thrace		X	X	X
	I Afrorum cR	Africa		X		X
	I Lingonum	Gaul	X	X		X
	I fida Vardullorum cR	Hispania	X	X	X	X
	I Frisiavonum	Germania	X	X	X	X
Unit type	**Unit name**	**Region of origin**	**Period**			
			Trajan	Hadrian (17.7.122)	Hadrian (122+)	Later
	I Vangionum	Germania	X	X	X	X
	I Hamiorum	Hamia		X	X	X
	I Delmatarum	Dalmatia		X	X	X
	I Aquitanorum	Gaul		X	X	X
	I Ulp Traiana Cugernorum cR	Germania	X	X	X	X
	I Morinorum	Gaul	X	X		X
	I Menapiorum	Gaul		X	X	
	I Sunucorum	Gaul(?)		X	X	
	I B(a)etasiorum	Germania	X	X	X	X
	I Batavorum	Germania		X	X	X
	I Tungrorum	Gaul	X	X	X	X
	I Hispanorum	Hispania	X	X	X	X
	II Gallorum	Gaul		X	X	X

	II Vasconum cR	Hispania	X	X		
	II Thracum	Thrace	X	X	X	X
	II Lingonum	Gaul	X	X	X	X
	II Asturum	Hispania	X	X	X	X
	II Delmatarum	Dalmatia	X	X	X	X
	II Nerviorum	Gaul	X	X	X	X
	III Nerviorum	Gaul		X	X	X
	Ill Bracaraugustanorum	Hispania	X	X	X	X
	III Lingonum	Gaul	X	X	X	X
	IIII Gallorum	Gaul	X	X	X	X
	IV Lingonum	Gaul		X	X	X
	IIII Breucorum	Pannonia		X	X	X
	IIII Delmatarum	Dalmatia	X	X		
	V Raetorum	Raetia		X		
	V Gallorum	Gaul	X	X	X	X
	VI Nerviorurn	Gaul		X	X	X
	VII Thracum	Thrace		X	X	X
	I Nerviorum	Gaul	X	X		
	II Pannoniorum	Pannonia	X	X	X	X
	I Ael Dacorum	Dacia		X	X	X
	<I> nauticarum			X	X	
	IIII Nerviorum	Gaul		X	X	
	I Ael classica			X		X
	I Ael Hispanorum	Hispania		X		X
	I Pannoniorum	Pannonia		X		X

Table I.3. Auxiliary garrison of Britain (after Holder 2003:143-4, *tab*. 17).

Appendix II: Vindolanda Tablets: a selection

This appendix includes the translated text of Vindolanda tablets referenced in the text but not quoted there. The translations are taken from Vindolanda Tablets Online II (CSAD 2010; after Bowman and Thomas 1994, 2003), and from Volume IV (Bowman *et al* 2010, 2011).

1. *Tab. Vindol.* II 154.
(Bowman and Thomas 1994:94)
'18 May, net number of the First
Cohort of Tungrians, of which the
commander is
Iulius Verecundus the prefect, 752,
including centurions 6
of whom there are absent:
guards of the governor 46
at the office of Ferox
at Coria 337
including centurions 2 (?)
at London centurion 1 (?)
... 6
including centurion 1
... 9
including centurion 1
... 11
at (?) ... 1 (?)
45
total absentees 456
including centurions 5
remainder, present 296
including centurion 1
from these:
sick 15
wounded 6
suffering from inflammation of the
eyes 10
total of these 31
remainder, fit for active service 265 '

2. *Tab. Vindol.* II 156.
(Bowman and Thomas 1994:100)
'7 March
sent with Marcus, the medical orderly,
to build
the residence, builders, number 30
to burn stone, number 19 (?)
to produce clay for the wattle fences
of the
camp ... '

3. *Tab. Vindol.* II 164.
(Bowman and Thomas 1994:107)
'... the Britons are unprotected by armour (?). There are very many cavalry. The cavalry do not use swords nor do the wretched Britons mount in order to throw javelins. '

4. *Tab. Vindol.* II 183.
(Bowman and Thomas 1994:134)
'to ...tor, centurion,
iron, 90 lbs ...
to Ascanius, *denarii* 32+
to Candidus, in charge of the pigs ...
to ..., transporter ... '

5. *Tab. Vindol.* **II 184.**

(Bowman and Thomas 1994:137-8)

'Century of Ucen(i)us (?)

overcoats, *denarii* 13+

Tagarminis

pepper, *denarii* 2

Gambax son of Tappo

towel, *denarii* 2

Sollemnis (?) ...

a flask ...

Furio (?) son of Stipo (?)

towel, *denarii* 2

Ammius ...

... 28 (?)

(ii.18-iii.40)

buskin, *denarii* 3½

Messor

a *sagacia*, *denarii* 5, *asses* 3

Lucius the shield-maker

tallow, *denarii* ..

... Uxperus ...

Agilis (?)

tallow (?), ...

Huep...

towel, *denarii* 2

Tullio son of Carpentarius

denarii 40+

century of Tullio

thongs, *denarii* 2½

tallow, *denarii* 2

towel (?), *denarius* 1

Butimas

tallow, *denarii* 2+

towel, *denarii* ..

...

tallow, *denarii* ..

Caledus" '

6. *Tab. Vindol.* **II 185.**

(Bowman and Thomas 1994:142-3)

'For lees of wine (?), *denarii* ½

July (8-13), at Isurium (?)

for lees of wine (?), *denarii* ¼

July (9-14), ...

for lees of wine (?), *denarii* ¼

July (10-14), ...

(lines 17-29) "... 8 ..

for lees of wine (?), *denarii* ¼,

of barley, *modius* 1, *denarii* ½, *as* 1

wagon-axles,

two, for a carriage, *denarii* 3½

salt and fodder (?) ..., *denarius* 1

at Isurium, for lees of wine

(?), *denarii* ¼

at Cataractonium, for accommodation

(?), *denarii* ½

for lees of wine (?), *denarii* ¼

at Vinovia, for vests (?), *denarii* ¼

of wheat, ...

total, *denarii* 78¾

grand total, *denarii* 94¾.

... '

7. *Tab. Vindol.* **II 186.**

(Bowman and Thomas 1994:146-7)

'... through Gracilis (?)

... *modii*, 30+ ...

.. November/December, through

Gracilis,

..., pounds 100 ...

... November/December, through

Gracilis,

... pounds 22, *asses* ..

December, to Gracilis, nails
for boots, number 100, *asses* 2
December, through Audax,
of salt, pounds 85+, *asses* 12+ (?)
December, of Celtic beer,
a *metretes*, *asses* 8
In the consulship of Calpurnius Piso
and Vettius Bolanus:
January, through Audax (?),
goat-meat (?), ..., *as* 1 (?)
January (?), through Gracilis,
..., *asses* ..
January (?), through Gracilis, ... pork
(?) ...,
through Audax, of pork (?), pounds
11+ , ...
February, through Similis,
of Celtic beer, a *metretes*, ...
February (?), through Audax

...'

8. *Tab. Vindol.* **II 192.**
(Bowman and Thomas 1994:159-60)
'From Gavo
a coverlet (?), *denarii* ...
of beans, *modii* 55 (?), *denarii* ..
of wool, 38 lbs, []
.. lbs, *denarii* 12½, *as* 1 ...
bedspreads 3, *denarii* .. (?)
of honey, *modii* .. *denarii* .. (?)
a *sagum*, *denarii* .. (?)
total, [[*denarii* 70+]]
denarii ..
(Back) Account of Gavo. '

9. *Tab. Vindol.* **II 193.**

(Bowman and Thomas 1994:161)

'... to Felicio the centurion as a loan ...
21 May (?)
(2nd hand?) received, of
spices, *sextarius* ½, *denarius* ½.
(2nd hand?) received, of
gruel, *sextarius* ½, *denarius* ¼ +
(2nd hand?) received, eggs,
8, *denarius* ¼
20 June (?) ... '

10. *Tab. Vindol.* **II 194.**
(Bowman and Thomas 1994:163-4)
'...
shallow dishes, 2 (?)
side-plates, 5 (?)
vinegar-bowls, 3 (?)
5egg-cups, 3
on the purlin (?)
a platter
a shallow dish'

'a strong-box (?) and
a bronze lamp
bread-baskets, 4 (?)
cups, 2 (?)
in a box
bowls, 2 (?) in a box ... '

11. *Tab. Vindol.* **II 196.**
(Bowman and Thomas 1994:167-8)
'...
for dining

pair(s) of blankets ...

paenulae, white (?) ...

from an outfit:

paenulae ...

and a *laena* and a (?) ...

for dining

loose robe(s) ...

under-*paenula(e)* ...

vests ...

from Tranquillus

under-*paenula(e)* ...

[[from Tranquillus]]

from Brocchus

tunics ...

half-belted (?) ...

tunics for dining (?) ...

(Back) 2nd hand?) ...

branches (?), number ...

a vase ...

with a handle

rings with stones (?) ..." '

12. *Tab. Vindol.* **II 225.**
(Bowman and Thomas 1994:201)

'To his Crispinus. Since Grattius Crispinus is returning to ... and ... I have gladly seized the opportunity my lord of greeting you, you who are my lord and the man whom it is my very special wish to be in good health and master of all your hopes. For you have always deserved this of me right up to the present high office (?). In reliance on this ... you first ... greet (?) ... Marcellus, that most distinguished man, my governor. He therefore offers

(?) the opportunity now of ... the talents (?) of your friends through his presence, of which you have, I know, very many, thanks to him (?). Now (?), in whatever way you wish, fulfil what I expect of you and ... so furnish me with friends that thanks to you I may be able to enjoy a pleasant period of military service. I write this to you from Vindolanda where my winter-quarters are (?) ... '

13. *Tab. Vindol.* **II 234.**

(Bowman and Thomas 1994:209)

'Flavius Cerialis to his September, greetings. Tomorrow, which is 5 October, as you wish my lord, I will provide some goods (?) ... by means of which (?) we may endure the storms even if they are troublesome. '

14. *Tab. Vindol.* **II 248.**

(Bowman and Thomas 1994:219)

'Niger and Brocchus to their Cerialis, greeting. We pray, brother, that what you are about to do will be most successful. It will be so, indeed, since it is both in accord with our wishes to make this prayer on your behalf and you yourself are most worthy. You will assuredly meet our governor quite soon. We pray, our lord and brother, that you are in good health ... expect ...

(?) (Back) To Flavius Cerialis, prefect of the cohort ... '

15. *Tab. Vindol.* **II 250.**

(Bowman and Thomas 1994:221)

' ...ius Karus to his Cerialis, greetings. ... Brigionus (?) has requested me, my lord, to recommend him to you. I therefore ask, my lord, if you would be willing to support him in what he has requested of you. I ask that you think fit to commend him to Annius Equester, centurion in charge of the region, at Luguvalium, [by doing which] you will place me in debt to you both in his name (?) and my own (?). I pray that you are enjoying the best of fortune and are in good health. Farewell, brother. (Back) To Cerialis, prefect. '

16. *Tab. Vindol.* **II 294.**

(Bowman and Thomas 1994:264)

' ... Paterna (?) to her Lepidina, greetings. So help me God, my lady [and sister?], I shall bring (?) you two remedies (?), the one for ..., the other for fever (?) and therefore ... myself to you ... but insofar as ... '

17. *Tab. Vindol.* **II 309.**

(Bowman and Thomas 1994:287)

'Metto (?) to his Advectus (?) very many greetings.
I have sent you wooden materials through the agency of Saco:
hubs, number, 34
axles for carts, number, 38
therein an axle turned on the lathe, number, 1
spokes, number, 300
planks (?) for a bed, number, 26
seats, number, 8 (?)
knots (?), number, 2 (?)
boards (?), number, 20+
..., number, 29
benches (?), number, 6
I have sent you goat-skins, number, 6
I pray that you are in good health, brother." '

18. *Tab. Vindol.* **II 310.**

(Bowman and Thomas 1994:291)

'Chrauttius to Veldeius his brother and old messmate, very many greetings. And I ask you, brother Veldeius - I am surprised that you have written nothing back to me for such a long time - whether you have heard anything from our elders, or about ... in which unit he is; and greet him from me in my words and Virilis the veterinary doctor. Ask him (*sc.* Virilis) whether you may send through one of our friends the pair of shears which he

promised me in exchange for money. And I ask you, brother Virilis, to greet from me our sister Thuttena. Write back to us how Velbuteius is (?). (2nd hand?) It is my wish that you enjoy the best of fortune. Farewell. (Back) (Deliver) at London. To Veldedeius, groom of the governor, from his brother Chrauttius. '

19. *Tab. Vindol.* **II 311.**
(Bowman and Thomas 1994:295)

'Sollemnis to Paris his brother, very many greetings. I want you to know that I am in very good health, as I hope you are in turn, you neglectful man, who have sent me not even one letter. But I think that I am behaving in a more considerate fashion in writing to you ... to you, brother, ... my messmate. Greet from me Diligens and Cogitatus and Corinthus and I ask that you send me the names ... Farewell, dearest brother (?). (Back) To Paris ... of the 3rd Cohort of Batavians, from Sollemnis ... '

20. *Tab. Vindol.* **II 343.**
(Bowman and Thomas 1994:324)

'Octavius to his brother Candidus, greetings. The hundred pounds of sinew from Marinus - I will settle up. From the time when you wrote about this matter, he has not even mentioned it to me. I have several times written to you that I have bought about five thousand *modii* of ears of grain, on account of which I need cash. Unless you send me some cash, at least five hundred *denarii*, the result will be that I shall lose what I have laid out as a deposit, about three hundred *denarii*, and I shall be embarrassed. So, I ask you, send me some cash as soon as possible. The hides which you write are at Cataractonium - write that they be given to me and the wagon about which you write. And write to me what is with that wagon. I would have already been to collect them except that I did not care to injure the animals while the roads are bad. See with Tertius about the 8_ *denarii* which he received from Fatalis. He has not credited them to my account. Know that I have completed the 170 hides and I have 119 *modii* of threshed *bracis*. Make sure that you send me cash so that I may have ears of grain on the threshing-floor. Moreover, I have already finished threshing all that I had. A messmate of our friend Frontius has been here. He was wanting me to allocate (?) him hides and that being so, was ready to give cash. I told him I would give him the hides by 1 March. He decided that he would come on 13 January. He did not turn up nor did he take any trouble to obtain them since he had hides. If he had given the cash, I would have given him them. I hear that Frontinius

Iulius has for sale at a high price the leather ware (?) which he bought here for five *denarii*apiece. Greet Spectatus and ... and Firmus. I have received letters from Gleuco. Farewell. (Back) (Deliver) at Vindolanda. '

21. *Tab. Vindol.* II 344.

(Bowman and Thomas 1994:331)

'... he beat (?) me all the more ... goods ... or pour them down the drain (?). As befits an honest man (?) I implore your majesty not to allow me, an innocent man, to have been beaten with rods and, my lord, inasmuch as (?) I was unable to complain to the prefect because he was detained by ill-health I have complained in vain (?) to the*beneficiarius* and the rest (?) of the centurions of his (?) unit. Accordingly (?) I implore your mercifulness not to allow me, a man from overseas [*homo transmarinum*] and an innocent one, about whose good faith you may inquire, to have been bloodied by rods as if I had committed some crime. '

22. *Tab. Vindol.* II 346.
(Bowman and Thomas 1994:336)

'... I have sent (?) you ... pairs of socks from Sattua, two pairs of sandals and two pairs of underpants, two pairs of sandals ... Greet ...ndes, Elpis, Iu..., ...enus, Tetricus and all your

messmates with whom I pray that you live in the greatest good fortune. '

23. *Tab. Vindol.* II 347.
(Bowman and Thomas 1994:337)

'Rhenus to his Primigenius, greetings. ... I very much desire ... the greatest indulgence (?) ... through (?) you. (2nd hand?) I pray that you are in good health, dearest brother (?) ... (Back) [To Primigenius] (slave of) (?) ...alis, from Rhenus, slave of Similis. '

24. *Tab. Vindol.* III 581.
(Bowman and Thomas 2003:27-9)

'Consumed(?)
11(?) April
the decurion(s)
of the 1st beer (?)
16 May, (by?)
the brewer
18 May, by (?)
chickens
In the fifth consulship of Trajan
26 April
by Crescens

on the same day, by
a goose

5 June, (by?)
Suetius (?)
10 June, (by?)
the brewer

11 June, (by?)
Vatto
In the consulship of Sex. Attius
Suburanus
1 January, by
veteran, chickens
on the same day, by Sautenus (?)
by Chnisso
2 January
chickens

1 March, by Ma
on the same day, by Candidus (?)
30 March, by Mar
31 March, by Exsomnius (?)
line deleted
23 April, by V
in charge of the draft-animals of
Brocchus (?)
total, geese
likewise, geese
nursling chicks (?)
likewise, nurslings (?)
chickens
30 April
likewise, chickens
through Comm (?)
total, chickens

Date ?

disbursed
18 May
a chicken
on the same day, for 's dinner (?) ...

chicken (?) consumed, 1 (?)
25 May
, a chicken ...
13 June
of (?) the legate
14 June
at Coria, on the instructions of

on the same day in
there have died

10 June
discharge of Flavinus (?)
30 August
for Niger and Brocchus
25 December
for Brocchus' dinner (?)
1 January, through (?)

17 January
for Brocchus
21 February
from the pen
1 March, for the lord(s) (?)
of the Matronalia (?)

15 March
for Niger and Lae
21 March,

4 April
for Brocchus
29 April,
for September
4 May
with Sautenus

total disbursed

remainder
and geese, number
from these (?)

9 May
for (?) Onesimus with the standards
(?)
on the same day, for Sautenus
in the pen
29 May as lunch for
and Flavinus, consumed (?)
on the same day,
with Sautenus
1 May, for the *singulares* (?)
on the visit of the governor
consumed (?) at lunch
likewise outside for Myr (?)
6 June
chickens, number 4(?)

16 July
through Surenus the centurion(?)
, number 12
on the same day
for nus(?) chickens
in the hands of Sautenus
, chickens
total, chickens, number 20+
from these, Tanagrian(?)
remainder, sterile (?)
total (?), chickens, number 7+'

25. *Tab. Vindol.* III 586.

(Bowman and Thomas 2003:38-9)

'(Col.i)To (?)
[[Soft wheat, *modii* 2]]
[[Gruel, *modius* 1]]
To Atticus, *cornicularius*
Gruel, *modius* 1
Soft wheat, *modius* 1
To Vitalis, pharmacist
Gruel, *modii* 5
[[Soft wheat, *modius* 1]]
To Decimus, *cornicularius*
Soft wheat, *modius* 1

(Between cols. i and ii)
He owes the remainder (?), *modius* 1,
I received it on the same day.
(Col. ii)

[[soft wheat, *modii* 50]]
Received
11 June, from Masclus the *decurion*,
soft wheat, *modii*
19 June, from Vitalis, soft
wheat, *modii*
2 September, I received from Masclus
soft wheat, *modii* 1+'

26. *Tab. Vindol.* III 591.
(Bowman and Thomas 2003:45)
'(a)Anise
Nuts
Berries (?)
Soft wheat (-flour?)

Beans

Alum '

'(b)Wax, by weight (?)

Bitumen, by weight

Bull's glue

Pitch, by weight

Blacking, by weight

Anchusa, by weight (?)

Mustard-seed, by weight

Verdigris

Linen soaked in honey (?)

Resin

Cummin

Oak-gall '

27. *Tab. Vindol.* **III 593.**

(Bowman and Thomas 2003:47)

'Nets which we have left.
A net for thrushes
A net for ducks
A drag-net for fishing

Snares, 3, for swans, with
Snares, 7, with Veteranus (?) '

28. *Tab. Vindol.* **III 601.**
(Bowman and Thomas 2003:64)
'Account of Florus.
26 December to Florus (?)
Likewise, to Modestinus (?)
28 December. To Florus, nails (?)
31 December. To Florus

Likewise, through Florus

pork-fat
2 January. To Florus
Likewise, to Florus, nails
Total, *denarii* 11 1/2 + (?)
Likewise, to Vitalis (?) '

29. *Tab. Vindol.* **III 628.**

(Bowman and Thomas 2003:85)

'Masclus to Cerialis his king, greeting. Please, my lord, give instructions as to what you want us to have done tomorrow. Are we to return with the standard to (the shrine at?) the crossroads all together or every other one (i.e. half) of us(?) ... most fortunate and be well-disposed towards me. Farewell. My fellow-soldiers have no beer. Please order some to be sent. (Back)To Flavius Cerialis, prefect, from Masclus, decurion. '

30. *Tab. Vindol.* **III 642.**
(Bowman and Thomas 2003:95)
'I shall gladly do. As to the one hundred shingles which I have at Romanius', if you have no need of them, transport them *en route* when your wagons come from time to time, on which see that you oversee your boys lest in any way . Greet Ingenua and ... Farewell. (Back) To Gabinius from Bellicus(?).'

31. *Tab Vindol.* **III 643.**

(Bowman and Thomas 2003:97)

'Florus to his Calavir(us), greetings. The closed small box and whatever things have been locked in it(?) give to the *beneficiarius* which(?) he will seal with his ring."

'Florus to his Titus, greetings. Brother, if you happen to have(?) an axe in your hut, give it to Gam-, the man who will deliver you this tablet(?), and in order that he gives it back and do not give it to him except on condition that he straightway places it in the cart. Ingenua, your daughter, sends (both of) you greetings. Deliver to Caelovir(us). (Margin) I pray that you are in good health. '

32. *Tab. Vindol.* **III 645.**

(Bowman and Thomas 2003:100)

'Maior to his Maritimus greeting. I wanted you to know that a letter has been sent to me by my father in which he writes to me that I should make known to him what I shall have done about . But if you have conducted business in that regard(?) with the *Caesariani*, see that you write back to me with clear information so that I can write back to this effect to my father. If you have made any payment from time to time, I shall remove grain from store(?) for you without delay in proportion to the sum which may be raised. When I was writing this to you I was making the bed warm. I wish you may enjoy the best of fortune. sends you greetings. Farewell. (Margin) If you intend to send a boy to me(?), send a note of hand with him so that I may be the more reassured. (Back) [Deliver] at Vindolanda. To Cocceiius Maritimus from Maior. '

33. *Tab. Vindol.* **III 649.**

(Bowman and Thomas 2003:106)

' to his -nus greetings. You will receive out of the Britons' carts from Rac..romaucus(?) three hundred and eighty-one *modii* of grain. Furthermore, they have loaded 53 *modii* into each individual cart. The container(?) which they(?) are conveying(?) holds 63 *modii*. from(?) Vindolanda with(?) and *uelatura*. Furthermore(?), they have half(?) the carriage-monies, that is one *denarius* each, and all the *uelatura*; and the (part of the) carriage-money which you will pay them, I(?) shall duly measure out to you as your fee(?) If you offer Verecundus , whatever will have been Farewell (Col. i, upside down) Gavorignus(?) has loaded as I wanted '

34. *Tab. Vindol.* **III 661.**

(Bowman and Thomas 2003:120)

' which I may present as a gift(?) to the mistress. But you(?) will have to take care that the person who reads my letter to you does not indicate that in any way to the mistress. (Back) Greet from me both Dioscurides(?) and both(?) our . Farewell, my dearest sister(?). '

35. *Tab. Vindol.* **III 663.**

(Bowman and Thomas 2003:122)

' has made(?), with which you agreeably(?) comfort me just as a mother would do. For my mind this sympathy(?) within [a few(?)] days I had and I was beginning to recover nicely. As to you(?), what you are doing with your Priscinus '

36. *Tab. Vindol.* **III 670.**
(Bowman and Thomas 2003:127)
' Martius to Victor, his most dear brother, greetings. Know that all is well with me and I wish that the same may be true for you. I am making you agent, brother, the relatives(?) of my(?) father carefully nor they sell(?) anything(?) for them and write to me, I ask, what is being done about those matters when you have the chance. If you do not have the chance (to write) from Bremesio(?), give (your letter) at

Cataractonium to Durmius(?) the veteran or(?) to Harius we had been. [Greet?] Proculus and (his?) family and your (?) daughter and Valentinus the *uexillarius* and -anus (Address) [Deliver] at Coria(?) to Victor, cavalryman, armourer, from Martius, clerk (?). '

37. *Tab. Vindol.* **IV 861.**
(Bowman *et al* 2010:205-7)
'Century of Ianuarius

Crescens the shieldmaker

Towels (?), denarii 1½

[…]ato

…denarii…

[…]s

… denarii 1½

…

…

…

[…]s

…denarius 1, asses 2

Geu[ ]s

… denarii 1½

C[…]s

Axe(?), denarii […

'A.m[ ]tus

Spears, denarius 1, asses 2

Goua[ ]us

Table(?), denarii 2

322

Spears denarius 1

Alb[ ]us

Spears, denarius 1

Liber

Cloak, denarii 2

Tagomas the *uexillarius*

Spears denarius 1

Victor the Huntsman

Spears, denarii 5

Verrinus

Spears(?), denarius ['

'N.dr[ ]s

Small cloak, denarii 2

Neso

Spears, denarius 1

Tullio

Towel, denarius 1

Total, denarius 29½'

38. *Tab. Vindol.* IV 862.
(Bowman *et al* 2010:211-2)
'20 April, craftsmen for (?)

The work of the workshop,

Century of Firmus.

A *uocris* made for a vehicle,

By order of Musurunus, centurion.

[c]*ircolas* made … to the number of 8.

Huennius(?) craftsman

Cross-bars made, to the number of 5.

Also, iron drawn out.

Andauer craftsman,

Tagomas craftsman.'

39. *Tab. Vindol.* IV 880.
(Bowman *et al* 2011:134)
'[A to B], greetings. I ask of your goodness, my lord, that you provide [accept] for us that lodging (*hospitium*) which is local to the fort…'

Appendix III: Material Culture Tables.

III.1. Militaria.

III.2. Construction.

III.3. Metalworking.

III.4. Leatherworking.

III.5. Textile working.

III.6. Medicine and hygiene.

III.7. Food and administration.

III.8. Personal items.

No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
Appendix III: Material Culture Tables.							
III.1. Militaria.							
1	Vindolanda	Weaponry	7	Sling pouch.		VI	R. Birley 1996
2	Vindolanda	Weaponry	8875	Sling shot (sandstone).	Severan fort ditch.	Period VIB	Birley 2003b
3	Vindolanda	Weaponry	8397	Sling shot (sandstone).	Below cobbler's shop floor.	Period IV	Birley 2003b
4	Vindolanda	Weaponry	1a	Bow ear lath.		III/IV	R. Birley 1996
5	Vindolanda	Weaponry	1b	Bow ear lath(?)		V	R. Birley 1996
6	Vindolanda	Weaponry	2	Leather thumb stall.		III	R. Birley 1996
7	Vindolanda	Weaponry	8662	High quality knife (QUINCUS F) with finger ring at hilt - enabled it to be used as hidden weapon?	Below rooms 1/2 of schola.	Period II/III	Blake 2003a
8	Vindolanda	Weaponry	W2001-13	Wooden toy sword.	Laminated floor below room 2, schola.	Period III	Birley 2003b
9	Vindolanda	Weaponry	W2001-89	Wooden toy/practise dagger, oak.	Small corridor, schola.	Period III	Birley 2003b
10	Vindolanda	Weaponry	8588	Sword blade tip (163mm).	Severan road foundation.	Period III	Birley 2003b
11	Vindolanda	Weaponry	3.33	Arrowhead.		V	R. Birley 1996
12	Vindolanda	Weaponry	8475	Tanged arrowhead/drill bit?	Room 4, schola.	Period IV	Birley 2003b
13	Vindolanda	Weaponry	4.38	Rectangular section arrowhead, tanged head.		V	R. Birley 1996
14	Vindolanda	Weaponry	4.39	Rectangular section arrowhead, tanged head.		IV	R. Birley 1996
15	Vindolanda	Weaponry	4.40	Rectangular section arrowhead, tanged head.		IV	R. Birley 1996
16	Vindolanda	Weaponry	4.42	Rectangular section arrowhead, tanged head.		V	R. Birley 1996
17	Vindolanda	Weaponry	5.43	Bulbous-nosed 'arrowhead'.		II	R. Birley 1996
18	Vindolanda	Weaponry	5.44	Bulbous-nosed 'arrowhead'.		IV	R. Birley 1996
19	Vindolanda	Weaponry	5.45	Bulbous-nosed 'arrowhead'.		V	R. Birley 1996

Appendix III.1: Material Culture - Militaria

No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
20	Vindolanda	Weaponry	5.46	Bulbous-nosed 'arrowhead'.		IV	R. Birley 1996
21	Vindolanda	Weaponry	5.47	Bulbous-nosed 'arrowhead'.		I	R. Birley 1996
22	Vindolanda	Weaponry	5.48	Bulbous-nosed 'arrowhead'.		II	R. Birley 1996
23	Vindolanda	Weaponry	5.49	Bulbous-nosed 'arrowhead'.		IV	R. Birley 1996
24	Vindolanda	Weaponry	5.50	Bulbous-nosed 'arrowhead'.		IV	R. Birley 1996
25	Vindolanda	Weaponry	5.52	Bulbous-nosed 'arrowhead'.		III	R. Birley 1996
26	Vindolanda	Weaponry	5.53	Bulbous-nosed 'arrowhead'.		IV	R. Birley 1996
27	Vindolanda	Weaponry	5.54	Bulbous-nosed 'arrowhead'.		V	R. Birley 1996
28	Vindolanda	Weaponry	5.55	Bulbous-nosed 'arrowhead'.		III	R. Birley 1996
29	Vindolanda	Weaponry	5.56	Bulbous-nosed 'arrowhead'.		IV	R. Birley 1996
30	Vindolanda	Weaponry	5.58	Bulbous-nosed 'arrowhead'.		III	R. Birley 1996
31	Vindolanda	Weaponry	5.59	Bulbous-nosed 'arrowhead'.		IV	R. Birley 1996
32	Vindolanda	Weaponry	5.60	Bulbous-nosed 'arrowhead'.		IV	R. Birley 1996
33	Vindolanda	Weaponry	5.61	Bulbous-nosed 'arrowhead'.		IV	R. Birley 1996
34	Vindolanda	Weaponry	5.63	Bulbous-nosed 'arrowhead'.		III	R. Birley 1996
35	Vindolanda	Weaponry	5.64	Bulbous-nosed 'arrowhead'.		IV	R. Birley 1996
36	Vindolanda	Weaponry	5.65	Bulbous-nosed 'arrowhead'.		III	R. Birley 1996
37	Vindolanda	Weaponry	8146	Bulbous-nosed arrow head.	Demolition layer, schola.	Period IV	Birley 2003b
38	Vindolanda	Weaponry	8338	Bulbous-nosed arrow head.	Laminated layer below room 2, schola.	Period II	Birley 2003b
39	Vindolanda	Weaponry	8611	Bulbous-nosed arrow head.	False wall, schola.	Period IV	Birley 2003b
40	Vindolanda	Weaponry	8480	Bulbous-nosed arrow head.	Room 6, schola.	Period IV	Birley 2003b
41	Vindolanda	Weaponry	8479	Bulbous-nosed arrow head.	Room 6, schola.	Period IV	Birley 2003b
42	Vindolanda	Weaponry	8375	Bulbous-nosed arrow head.	Room 4, schola.	Period IV	Birley 2003b
43	Vindolanda	Weaponry	5.67	Artillery bolt-head.		II	R. Birley 1996
44	Vindolanda	Weaponry	5.68	Artillery bolt-head.		III	R. Birley 1996
45	Vindolanda	Weaponry	5.69	Artillery bolt-head.		III	R. Birley 1996
46	Vindolanda	Weaponry	4.70	Artillery bolt-head.		III	R. Birley 1996
47	Vindolanda	Weaponry	4.71	Artillery bolt-head.		III	R. Birley 1996
48	Vindolanda	Weaponry	4.72	Artillery bolt-head.		III	R. Birley 1996
49	Vindolanda	Weaponry	4.73	Artillery bolt-head.		IV	R. Birley 1996
50	Vindolanda	Weaponry	4.74	Artillery bolt-head.		IV	R. Birley 1996
51	Vindolanda	Weaponry	4.75	Artillery bolt-head.		IV	R. Birley 1996

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
52	Vindolanda	Weaponry	4.76	Artillery bolt-head.		IV	R. Birley 1996
53	Vindolanda	Weaponry	4.77	Artillery bolt-head.		IV	R. Birley 1996
54	Vindolanda	Weaponry	4.78	Artillery bolt-head.		IV	R. Birley 1996
55	Vindolanda	Weaponry	4.79	Artillery bolt-head.		IV	R. Birley 1996
56	Vindolanda	Weaponry	4.80	Artillery bolt-head.		IV	R. Birley 1996
57	Vindolanda	Weaponry	4.81	Artillery bolt-head.		V	R. Birley 1996
58	Vindolanda	Weaponry	4.82	Artillery bolt-head.		V	R. Birley 1996
59	Vindolanda	Weaponry	4.83	Artillery bolt-head.		V	R. Birley 1996
60	Vindolanda	Weaponry	4.84	Artillery bolt-head.		V	R. Birley 1996
61	Vindolanda	Weaponry	4.85	Artillery bolt-head.		V	R. Birley 1996
62	Vindolanda	Weaponry	4.86	Artillery bolt-head.		V	R. Birley 1996
63	Vindolanda	Weaponry	4.87	Artillery bolt-head.		V	R. Birley 1996
64	Vindolanda	Weaponry	8505	Artillery bolt-head.	Laminated layer below room 2, schola.	Period III	Birley 2003b
65	Vindolanda	Weaponry	8440	Artillery bolt-head.	Corridor in schola.	Period III	Birley 2003b
66	Vindolanda	Weaponry	8145	Artillery bolt-head.	Room 4, schola.	Period IV/V	Birley 2003b
67	Vindolanda	Weaponry	8427	Artillery bolt-head.	Below floor, room 4, schola.	Period III	Birley 2003b
68	Vindolanda	Weaponry	8670	Artillery bolt-head.	Wall/drain, E of schola.	Period IV	Birley 2003b
69	Vindolanda	Weaponry	8873	Artillery bolt-head.	Severan vicus foundations.	Period VII	Birley 2003b
70	Vindolanda	Weaponry	4.93	Misc. bolt head.		III	R. Birley 1996
71	Vindolanda	Weaponry	4.94	Pyramid-headed bolt.		IV	R. Birley 1996
72	Vindolanda	Weaponry	4.95	Javelin head(?)		III/IV	R. Birley 1996
73	Vindolanda	Weaponry	4.96	Javelin head(?)		III	R. Birley 1996
74	Vindolanda	Weaponry	4.97	Javelin head(?)		IV	R. Birley 1996
75	Vindolanda	Weaponry	8441	Javelin head.	Corridor in schola.	Period III	Birley 2003b
76	Vindolanda	Weaponry	4.107	Lance/spearhead.		II	R. Birley 1996
77	Vindolanda	Weaponry	4.108	Lance/spearhead.		V	R. Birley 1996
78	Vindolanda	Weaponry	4.109	Lance/spearhead.		III	R. Birley 1996
79	Vindolanda	Weaponry	4.118	Lance/spearhead.		V	R. Birley 1996
80	Vindolanda	Weaponry	4.12	Lance/spearhead.		IV	R. Birley 1996

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
81	Vindolanda	Weaponry	8126	Lance head.	Northmost room of schola.	Period IV	Birley 2003b
82	Vindolanda	Weaponry	8577	Lance head.	Rubble terrace W of rooms 1,2,3,4, schola.	Period IV	Birley 2003b
83	Vindolanda	Weaponry	4.138	Spearhead/'Standard tip'.		IV/V	R. Birley 1996
84	Vindolanda	Weaponry	4.14	Spearhead/'Standard tip'.		III	R. Birley 1996
85	Vindolanda	Weaponry	4.142	Spearhead/'Standard tip'.		IV	R. Birley 1996
86	Vindolanda	Weaponry	4.144	Spearhead/'Standard tip'.		IV	R. Birley 1996
87	Vindolanda	Weaponry	4.146	Spearhead/'Standard tip'.		V	R. Birley 1996
88	Vindolanda	Weaponry	4.147	Spearhead/'Standard tip'.		IV	R. Birley 1996
89	Vindolanda	Weaponry	8382	Spearhead with two holes - standard tip?	Cobbler's workshop.	Period V	Birley 2003b
90	Vindolanda	Communication		Stylus pen.		V	R. Birley 1999
91	Vindolanda	Communication		Stylus pen.		III	R. Birley 1999
92	Vindolanda	Communication		Stylus pen.		II	R. Birley 1999
93	Vindolanda	Communication		Stylus pen.		II	R. Birley 1999
94	Vindolanda	Communication		Stylus pen.		II	R. Birley 1999
95	Vindolanda	Communication		Stylus pen.		III	R. Birley 1999
96	Vindolanda	Communication		Pen.	Kitchen refuse pit.	III	R. Birley 1999
97	Vindolanda	Communication	8150	Stylus pen, type 2.	Room 2, schola.	Period IV	Blake 2003a
98	Vindolanda	Communication	8180	Stylus pen, type 5.	Laminated floor below Period IV building.	Period III	Blake 2003a
99	Vindolanda	Communication	8181	Stylus pen, type 1.	Laminated floor below Period IV building.	Period III	Blake 2003a
100	Vindolanda	Communication	8186	Stylus pen (eraser end).	Laminated floor below Period IV building.	Period III	Blake 2003a
101	Vindolanda	Communication	8309	Stylus pen, type 1.	Demolition fill, Period I ditch.	Period II/III	Blake 2003a
102	Vindolanda	Communication	8326	Stylus pen, type 5.	Laminate layer below schola.	Period II	Blake 2003a
103	Vindolanda	Communication	8340	Stylus pen, type 2.	Laminate layer below schola.	Period II	Blake 2003a

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
104	Vindolanda	Communication	8394	Stylus pen, type 5.	Schola corridor.	Period IV	Blake 2003a
105	Vindolanda	Communication	8395	Stylus pen, type 3B.	Schola corridor.	Period IV	Blake 2003a
106	Vindolanda	Communication	8415	Stylus pen, type 2.	Schola corridor, N end.	Period IV	Blake 2003a
107	Vindolanda	Communication	8483	Stylus pen, type 5.	Room 6, schola.	Period IV	Blake 2003a
108	Vindolanda	Communication	8503	Stylus pen.	Period I fort ditch.	Period I	Blake 2003a
109	Vindolanda	Communication	8393	Stylus pen (eraser end).	Schola corridor.	Period IV	Blake 2003a
110	Vindolanda	Communication	8657	Stylus pen (type 3, child size?).	Wall/drain E of Period IV.	Period IV	Blake 2003a
111	Vindolanda	Communication	8667	Stylus pen, type 5.	Wall/drain E of Period IV.	Period IV	Blake 2003a
112	Vindolanda	Communication	8690	Stylus pen, type 2.	Severan fort ditch.	Period VIB	Blake 2003a
113	Vindolanda	Communication	8691	Stylus pen, type 5.	Severan fort ditch.	Period VIB	Blake 2003a
114	Vindolanda	Communication	8802	Stylus pen, type 2.	Structures below schola.	Period II/III	Blake 2003a
115	Vindolanda	Communication	8820	Stylus pen, type 2.	Period II floor below Period III wall.	Period II	Blake 2003a
116	Elginhaugh	Decoration(?)	10.5.2.1	Decoration(?)	Praetorium	A.D. 79-87	Hanson 2007c
117	Elginhaugh	Cavalry fitting	10.5.2.15	Cavalry horse fitting (?)	Topsoil.	A.D. 79-87	Hanson 2007c
118	Elginhaugh	Cavalry fitting	10.5.2.16	Cavalry horse fitting (?)	Demolition fill of pit behind ESE interval tower.	A.D. 79-87	Hanson 2007c
119	Elginhaugh	Cavalry fitting	10.5.2.17	Cavalry horse fitting (?)	Post-Roman plough soil.	A.D. 79-87	Hanson 2007c
120	Elginhaugh	Cavalry fitting	10.5.2.18	Cavalry horse fitting (?)	Ditch on N side of annexe.	A.D. 79-87	Hanson 2007c
121	Elginhaugh	Cavalry fitting	10.5.2.19	Cavalry horse fitting (?)	Primary fill inner ditch, N side of fort.	A.D. 79-87	Hanson 2007c
122	Elginhaugh	Cavalry fitting	10.5.2.20	Cavalry horse fitting (?)	Post-Roman plough soil.	A.D. 79-87	Hanson 2007c

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
123	Elginhaugh	Cavalry fitting	10.5.2.21	Cavalry horse fitting (?)	Upper demolition fill of pit 75 between praetorium and Barrack 2	A.D. 79-87	Hanson 2007c
124	Elginhaugh	Cavalry fitting	10.5.2.22	Cavalry horse fitting (?)	Post-Roman plough soil.	A.D. 79-87	Hanson 2007c
125	Elginhaugh	Armour fittings	10.5.2.23	Buckle.	Topsoil.	A.D. 79-87	Hanson 2007c
126	Elginhaugh	Armour fittings	10.5.2.24	D-shaped buckle.	Upper demolition fill of pit 111 between praetorium and Barrack 2.	A.D. 79-87	Hanson 2007c
127	Elginhaugh	Armour fittings	10.5.2.25	Large buckle.	Fill of pit 259 in annexe trench 2.	A.D. 79-87	Hanson 2007c
128	Elginhaugh	Armour fittings	10.5.2.26	Lorica Segmentata	Corn-drying oven, annexe trench 3.	A.D. 79-87	Hanson 2007c
129	Elginhaugh	Armour fittings	10.5.2.27	Boss.	Topsoil.	A.D. 79-87	Hanson 2007c
130	Elginhaugh	Weaponry	10.5.2.28	Weapon component	Demolition layer.	A.D. 79-87	Hanson 2007c
131	Elginhaugh	Weaponry	10.5.2.29	Weapon component	Topsoil.	A.D. 79-87	Hanson 2007c
132	Elginhaugh	Weaponry	10.5.2.30	Weapon component	Topsoil.	A.D. 79-87	Hanson 2007c
133	Elginhaugh	Weaponry	10.5.2.31	Weapon component	Upper demolition fill of well in principia.	A.D. 79-87	Hanson 2007c
134	Elginhaugh	Weaponry	10.5.2.32	Weapon component	Topsoil.	A.D. 79-87	Hanson 2007c
135	Housesteads	Cavalry harness	81	Hackamore	Barrack XIII		Rushworth 2009b
136	Housesteads	Cavalry harness	110	Harness junction.	North rampart		Rushworth 2009b
137	Housesteads	Armour	84	Apron pendant.	North rampart		Rushworth 2009b
138	Housesteads	Armour	85	Apron pendant.	Barrack XIII		Rushworth 2009b
139	Housesteads	Armour	86	Reinforcing bar(?)	East rampart.		Rushworth 2009b
140	Housesteads	Armour	87	Scales.	Barrack XIII		Rushworth 2009b
141	Housesteads	Armour	88	Scales.	North rampart		Rushworth 2009b
142	Housesteads	Armour	89	Strap mount(?)	Barrack XIII		Rushworth 2009b
143	Housesteads	Armour	312	Shield boss.	Barrack XIV		Rushworth 2009b
144	Housesteads	Armour	313	Mail (*hamata*)	North rampart		Rushworth 2009b

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
145	Housesteads	Armour	314	Shield grip/reinforcement bar.	Barrack XIII		Rushworth 2009b
146	Housesteads	Weaponry	111	Dagger guard.	East rampart bank.	Phase I	Rushworth 2009b
147	Housesteads	Weaponry	112	Dagger guard.	East rampart.		Rushworth 2009b
148	Housesteads	Weaponry	113	Scabbard chape(?)	Barrack XIII		Rushworth 2009b
149	Housesteads	Weaponry	114	Chape.	Hearth in interval tower.		Rushworth 2009b
150	Housesteads	Weaponry	115	Scabbard runner.	Hearth in interval tower.		Rushworth 2009b
151	Housesteads	Weaponry	315	Spearhead.	Barrack XIII		Rushworth 2009b
152	Housesteads	Weaponry	316	Spearhead.	Barrack XIII		Rushworth 2009b
153	Housesteads	Weaponry	317	Spearhead.	-		Rushworth 2009b
154	Housesteads	Weaponry	318	Spearhead.	Rampart dump (NE).		Rushworth 2009b
155	Housesteads	Weaponry	319	Spearhead.	-		Rushworth 2009b
156	Housesteads	Weaponry	322	Ferrule.	Barrack XIII		Rushworth 2009b
157	Housesteads	Weaponry	323	Ferrule.	Barrack XIII		Rushworth 2009b
158	Housesteads	Weaponry	324	Dagger.	North rampart		Rushworth 2009b
159	Housesteads	Weaponry	411	Sword or dagger guard/bridle piece (bone)	Barrack XIII		Rushworth 2009b
160	Housesteads	Weaponry	691-708	Sling-stones.			Rushworth 2009b
161	Housesteads	Weaponry	709-719	'Ballista' stones.			Rushworth 2009b
162	Housesteads	Communication	340	Stylus.	North rampart		Rushworth 2009b
163	Housesteads	Weaponry	341	Stylus/medical instrument.	North rampart		Rushworth 2009b
164	South Shields	Armour	3.409-3.427	Copper-alloy helmet handles.			Allason-Jones and Miket 1984
165	South Shields	Armour	3.676-3.684	Armour fittings.			Allason-Jones and Miket 1984
166	South Shields	Armour	3.696-3.700	Armour fittings.			Allason-Jones and Miket 1984
167	South Shields	Armour	3.705-3.711	Armour fittings.			Allason-Jones and Miket 1984
168	South Shields	Armour	3.10-3.12	Belt plates.			Allason-Jones and Miket 1984

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
169	South Shields	Armour	3.361-3.634	Belt plates.			Allason-Jones and Miket 1984
170	South Shields	Armour	3.636-3.637	Belt plates.			Allason-Jones and Miket 1984
171	South Shields	Armour	3.643	Belt plates.			Allason-Jones and Miket 1984
172	South Shields	Armour	5.74-5.75	Ring mail fragments.			Allason-Jones and Miket 1984
173	South Shields	Armour	3.723	Cavalry helm cheekpiece (bronze).			Allason-Jones and Miket 1984
174	South Shields	Armour	5.72	Hobnails.			Allason-Jones and Miket 1984
175	South Shields	Armour	3.593-3.612	Strap ends.			Allason-Jones and Miket 1984
176	South Shields	Harness	3.660-3.664	Harness decoration.			Allason-Jones and Miket 1984
177	South Shields	Harness	3.689-3.694	Harness loops.			Allason-Jones and Miket 1984
178	South Shields	Harness	2.5	Cheekpiece (bone).			Allason-Jones and Miket 1984
179	South Shields	Harness	5.69-5.71	Horse shoes.			Allason-Jones and Miket 1984
180	South Shields	Harness	3.685-3.688	Spurs (copper alloy).			Allason-Jones and Miket 1984
181	South Shields	Harness	5.73	Spurs (iron).			Allason-Jones and Miket 1984
182	South Shields	Weaponry	3.724	Shield boss.			Allason-Jones and Miket 1984
183	South Shields	Weaponry	12.59-12.66	Ballista balls.			Allason-Jones and Miket 1984
184	South Shields	Weaponry	2.16-2.19	Bow strengtheners.			Allason-Jones and Miket 1984
185	South Shields	Weaponry	2.34	Scabbard runner (bone).			Allason-Jones and Miket 1984
186	South Shields	Weaponry	3.644-3.648	Scabbard runner (copper alloy).			Allason-Jones and Miket 1984

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
187	South Shields	Weaponry	3.649-3.651	Scabbard runner/strip (copper alloy).			Allason-Jones and Miket 1984
188	South Shields	Weaponry	3.737	Scabbard runner (copper alloy).			Allason-Jones and Miket 1984
189	South Shields	Weaponry	3.738	Scabbard runner (copper alloy).			Allason-Jones and Miket 1984
190	South Shields	Weaponry	3.724	Shield.			Allason-Jones and Miket 1984
191	South Shields	Weaponry	12.45-12.58	Slingstones.			Allason-Jones and Miket 1984
192	South Shields	Weaponry	5.90-5.93	Spearheads.			Allason-Jones and Miket 1984
193	South Shields	Weaponry	5.76-5.89	Swords.			Allason-Jones and Miket 1984
194	South Shields	Communication	3.374-3.387	Seal boxes.			Allason-Jones and Miket 1984
195	South Shields	Communication	8.1-8.37	Seals.			Allason-Jones and Miket 1984
196	Hardknott	Communication	6	Seal box.	West angle tower	2nd/3rd C	Bidwell et al 1999
197	Hardknott	Weaponry	16	Spearheads.	East angle tower.		Bidwell et al 1999
198	Hardknott	Weaponry	17	Spearhead.	Principia.		Bidwell et al 1999
199	Hardknott	Weaponry	18	Spearhead.	North angle tower.		Bidwell et al 1999
200	Hardknott	Weaponry	19	Javelin head.			Bidwell et al 1999
201	Hardknott	Weaponry	20	Bolt-head.	East angle tower.		Bidwell et al 1999
202	Hardknott	Weaponry	21	Sheath edging.			Bidwell et al 1999
203	Hardknott	Weaponry	22	Dagger handle.		Hadrianic.	Bidwell et al 1999
204	Ribchester	Armour	1.37	Ring mail (very fine; possibly robust fabric).	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
205	Ribchester	Armour	1.38	Lorica Squamata scales (4).	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
206	Ribchester	Armour	1.39	Buckle plate from lorica segmentata.	Spoil.		Buxton & Howard-Davis 2000

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
207	Ribchester	Armour	1.40	Washer plate from lorica segmentata.	Spoil.		Buxton & Howard-Davis 2000
208	Ribchester	Armour	1.41	Washer plate from lorica segmentata.	Spoil.		Buxton & Howard-Davis 2000
209	Ribchester	Armour	1.42	Helmet fragment?	Trench fill, building (722).	Phase 4:1	Buxton & Howard-Davis 2000
210	Ribchester	Armour	1.43	Helmet ear protector?			Buxton & Howard-Davis 2000
211	Ribchester	Armour	1.44	Apron terminal(?)	Destruction deposit (EM).	Phase 5:1	Buxton & Howard-Davis 2000
212	Ribchester	Armour	1.45	Scabbard binding.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
213	Ribchester	Armour	1.46	Scabbard binding.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
214	Ribchester	Armour	1.47	Scabbard binding.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
215	Ribchester	Armour	1.48	Scabbard binding.			Buxton & Howard-Davis 2000
216	Ribchester	Armour	1.49	Scabbard chape.	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
217	Ribchester	Armour	1.50	Scabbard chape.	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
218	Ribchester	Armour	2.48	Helmet nape.			Buxton & Howard-Davis 2000
219	Ribchester	Cavalry harness	1.51	Saddle stiffener.	Abandonment deposit (N).	Phase 1:2	Buxton & Howard-Davis 2000
220	Ribchester	Cavalry harness	1.52	Saddle plate.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
221	Ribchester	Cavalry harness	1.53	Saddle plate.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
222	Ribchester	Cavalry harness	1.54	Strap junction.	Clay layer (EM N).	Phase 1:2	Buxton & Howard-Davis 2000
223	Ribchester	Cavalry harness	1.55	Strap junction.	Clay layer (EM N).	Phase 1:2	Buxton & Howard-Davis 2000
224	Ribchester	Cavalry harness	1.56	Strap junction.	Road debris.	Phase 2:2	Buxton & Howard-Davis 2000

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
225	Ribchester	Cavalry harness	1.57	Strap junction.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
226	Ribchester	Cavalry harness	1.58	Strap junction.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
227	Ribchester	Cavalry harness	1.59	Strap junction.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
228	Ribchester	Cavalry harness	1.60	Strap junction.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
229	Ribchester	Cavalry harness	1.61	Strap junction.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
230	Ribchester	Cavalry harness	1.62	Strap junction.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
231	Ribchester	Cavalry harness	1.63	Strap junction.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
232	Ribchester	Cavalry harness	1.64-1.76	Strap junction.	Spoil.		Buxton & Howard-Davis 2000
233	Ribchester	Cavalry harness	1.77	Strap terminal.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
234	Ribchester	Cavalry harness	1.78	Strap terminal.	Stone deposit (NE EM).	Phase 3	Buxton & Howard-Davis 2000
235	Ribchester	Cavalry harness	1.79	Strap terminal.	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
236	Ribchester	Cavalry harness	1.80	Strap terminal.	Topsoil		Buxton & Howard-Davis 2000
237	Ribchester	Cavalry harness	1.81	Strap fastener.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
238	Ribchester	Cavalry harness	1.82	Strap fastener.	Clay deposit, building (722).	Phase 4:2	Buxton & Howard-Davis 2000
239	Ribchester	Cavalry harness	1.83	Strap fastener.	Spoil.		Buxton & Howard-Davis 2000
240	Ribchester	Cavalry harness	1.84	Strap mount.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
241	Ribchester	Cavalry harness	1.85	Strap mount.		Phase 5:1	Buxton & Howard-Davis 2000
242	Ribchester	Cavalry harness	1.86	Strap mount.	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
243	Ribchester	Cavalry harness	1.87-1.89	Strap mount.	Spoil.		Buxton & Howard-Davis 2000
244	Ribchester	Cavalry harness	1.90	Phalera.	Building (722).	Phase 4:2	Buxton & Howard-Davis 2000
245	Ribchester	Cavalry harness	1.91	Strap fitting.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
246	Ribchester	Cavalry harness	1.92	Strap fitting (Romano-British).	Quarry fill.	Phase 5:1	Buxton & Howard-Davis 2000
247	Ribchester	Cavalry harness	1.93	Chamfron fitting.	Inner ditch fill.	Phase 3	Buxton & Howard-Davis 2000
248	Ribchester	Cavalry harness	1.94-95	Chamfron fitting.	Spoil.		Buxton & Howard-Davis 2000
249	Ribchester	Cavalry harness	1.96	Phallic pendant.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
250	Ribchester	Cavalry harness	1.97	Phallic pendant.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
251	Ribchester	Cavalry harness	1.98	Phallic pendant.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
252	Ribchester	Cavalry harness	1.99	Phallic pendant.	Spoil.		Buxton & Howard-Davis 2000
253	Ribchester	Cavalry harness	1.100	Romano-British pendant.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
254	Ribchester	Cavalry harness	1.101	Teardrop-shaped pendant.	Spoil.		Buxton & Howard-Davis 2000
255	Ribchester	Cavalry harness	1.102	U-shaped pendant.	Spoil.		Buxton & Howard-Davis 2000
256	Ribchester	Cavalry harness	6.251-271	Barding.		Phase 1:2-3	Buxton & Howard-Davis 2000
257	Ribchester	Cavalry harness	6.272	Harness strap.	Inner ditch fill.	Phase 2:2	Buxton & Howard-Davis 2000
258	Ribchester	Cavalry harness	6.273	Chamfron.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
259	Ribchester	Cavalry harness	6.274-278	Saddles.		Phase 2:2-3	Buxton & Howard-Davis 2000
260	Ribchester	Communication	1.192	Seal box.	Quarry fill.	Phase 5:2	Buxton & Howard-Davis 2000

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
261	Ribchester	Communication	2.119-127	Styli.		Phase 3-5:2	Buxton & Howard-Davis 2000
262	Ribchester	Communication	3.16-18	Lead seals.	Spoil.		Buxton & Howard-Davis 2000
263	Ribchester	Weaponry	2.49-65	Ballista bolts.		Phase 1:1-5:2	Buxton & Howard-Davis 2000
264	Ribchester	Weaponry	2.66	Spearhead (Romano-British).	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
265	Ribchester	Weaponry	2.67	Spearhead.	Spoil.		Buxton & Howard-Davis 2000
266	Ribchester	Weaponry	2.68	Spear ferrule (Romano-British).	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
267	Ribchester	Weaponry	2.69	Standard tip.	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
268	Ribchester	Weaponry	2.70-71	Pilum/arrowheads?	Spoil.		Buxton & Howard-Davis 2000
269	Ribchester	Weaponry	6.299	Shield cover(?).	Levelling deposit (NW EM).	Phase 3	Buxton & Howard-Davis 2000
270	Ribchester	Weaponry	7.63	Wooden toy/practice sword.	Organic fill (N).	Phase 1:2	Buxton & Howard-Davis 2000
271	Ribchester	Weaponry	7.64	Wooden toy/practice sword.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
272	Ribchester	Tents	6.1-193	Tent pieces.			Buxton & Howard-Davis 2000
273	Wallsend	Armour and dress	13.1	Belt plate (open-work).	Barrack Ix room 3	Period 2/3	A.T. Croom in Hodgson 2003
274	Wallsend	Armour and dress	13.2	Belt plate end ridge.	Barrack XII room 9	Period 2/3	A.T. Croom in Hodgson 2003
275	Wallsend	Armour and dress	53	Riveted 7mm ring mail (6.754kg). Votive offering?			A.T. Croom in Hodgson 2003
276	Wallsend	Armour and dress	53.2	Small fragment of 7mm ring mail.	Porta Quintana annexe	Period 3	A.T. Croom in Hodgson 2003
277	Wallsend	Armour and dress	53.3	Small fragment of 7mm ring mail.	Hospital portico	Period 2	A.T. Croom in Hodgson 2003
278	Wallsend	Armour and dress	54	Iron left cheekpiece.	Barrack IX room 3	Period 1	A.T. Croom in Hodgson 2003

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
279	Wallsend	Harness	20	Junction loop of phalera type.	Barrack XII room 6	Period 3	A.T. Croom in Hodgson 2003
270	Wallsend	Harness	21	Strap distributor.	Barrack XII room 3	Period 4	A.T. Croom in Hodgson 2003
271	Wallsend	Harness	22	Harness slider.	Barrack 12 room 3	Period 2/3	A.T. Croom in Hodgson 2003
272	Wallsend	Harness	23	Harness fitting.	Barrack IX room 9	Period 1	A.T. Croom in Hodgson 2003
273	Wallsend	Harness	76	Toggle - part of native/non-Roman harness.	Building XX room 3	Period 4	A.T. Croom in Hodgson 2003
274	Wallsend	Communication	36	Seal box.	Rampart	Period 4	A.T. Croom in Hodgson 2003
275	Wallsend	Weaponry	55	Spearhead.	Barrack IX room 5	Period 2/3	A.T. Croom in Hodgson 2003
276	Wallsend	Weaponry	55.2	Incomplete spearhead.	Barrack XII	Period 3	A.T. Croom in Hodgson 2003
277	Wallsend	Weaponry	55.3	Spearhead socket.	Barrack XII	Period 3	A.T. Croom in Hodgson 2003
278	Wallsend	Weaponry	56	Spearhead with medial ridge (Celtic/Germanic)	Barrack XII room 3	Period I	A.T. Croom in Hodgson 2003
279	Wallsend	Weaponry	57	Spearhead with medial ridge (Celtic/Germanic)	Barrack XII room 3	Period 4	A.T. Croom in Hodgson 2003
280	Wallsend	Weaponry	58	Javelin head.	Barrack IX room 6	Period 4+	A.T. Croom in Hodgson 2003
281	Wallsend	Weaponry	102	Throwing stone(?).	Forehall	Period 1	A.T. Croom in Hodgson 2003
282	Wallsend	Weaponry	106	Throwing stone(?).	Barrack IX room 2	Period 2/3	A.T. Croom in Hodgson 2003
283	Wallsend	Weaponry	108	Throwing stone/slingstone(?).	Barrack IX room 3	Period 1	A.T. Croom in Hodgson 2003
284	Wallsend	Weaponry	109	Throwing stone(?).	Barrack XII room 2	Period 1	
285	Wallsend	Instrument	79	Cylinder (whistle?).	Via Quintana	Period 3	A.T. Croom in Hodgson 2003

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
286	Birdoswald	Armour	7.96	Helmet binding.	Western praetentura		Wilmott, Cool and Evans 2009
287	Birdoswald	Armour	7.97	Belt plate.	Western praetentura	Phase 1	Wilmott, Cool and Evans 2009
288	Birdoswald	Armour	7.98	Belt plate.	Western praetentura	Phase 6	Wilmott, Cool and Evans 2009
289	Birdoswald	Weaponry	7.99	Scabbard chape(?).	Spur	Phase B5	Wilmott, Cool and Evans 2009
290	Birdoswald	Weaponry	7.100	Catapult bolt head.	Western praetentura	Phase 8	Wilmott, Cool and Evans 2009
291	Birdoswald	Weaponry	7.101	Sandstone shot.	Western praetentura	Phase 516	
292	Birdoswald	Restraint	7.102	Shackle (two bands connected by loop).	Western praetentura	Phase 8	
293	Carlisle (Castle Street)	Weaponry	2.140	Scabbard slide.		Period 11	Padley 1991
294			2.141	Scabbard slide.		Period 10-11	Padley 1991
295	Carlisle (CS)	Weaponry	2.160	Shield binding.		Period 10	Padley 1991
296	Carlisle (CS)	Weaponry	2.161	Shield binding.		Period 4C	Padley 1991
297	Carlisle (CS)	Weaponry	2.469	Spearhead.		Period 9	Padley 1991
298	Carlisle (CS)	Weaponry	2.470	Spearhead.		Period 8A	Padley 1991
299	Carlisle (CS)	Weaponry	2.471	Artillery bolt-head.		Period 6A	Padley 1991
300	Carlisle (CS)	Weaponry	2.472	Artillery bolt-head.		Period 3B	Padley 1991
301	Carlisle (CS)	Weaponry	2.473	Ferrule.		Period 6A	Padley 1991
302	Carlisle (CS)	Weaponry	2.474	Ferrule.		Period 5	Padley 1991
303	Carlisle (CS)	Weaponry	2.475	Caltrop.			Padley 1991
304	Carlisle (CS)	Restraint	2.486	Manacle (Manning Type 4).		Period 8B	Padley 1991
305	Carlisle (CS)	Armour	2.142	Belt plate.		Period 9-10	Padley 1991
306	Carlisle (CS)	Armour	2.149	Cheek piece.		Period 4A	Padley 1991
307	Carlisle (CS)	Armour	2.150	Ear protector (copper alloy).		Period 4A	Padley 1991
308	Carlisle (CS)	Armour	2.151	Ear protector (copper alloy).		Period 4B	Padley 1991
309	Carlisle (CS)	Armour	2.152	Ear protector (copper alloy).		Period 4B	Padley 1991
310	Carlisle (CS)	Armour	2.455	Ear protector (iron).		Period 4A	Padley 1991
311	Carlisle (CS)	Armour	2.456	Ear protector (iron).		Period 4C	Padley 1991

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
312	Carlisle (CS)	Armour	2.155	Apron mount.		Period 9	Padley 1991
313	Carlisle (CS)	Armour	2.156	Belt-stiffener.		Period 7	Padley 1991
314	Carlisle (CS)	Armour	2.157	Squamata scale.		Period 4C	Padley 1991
315	Carlisle (CS)	Armour	2.158	Hamata link (copper alloy).		Period 4C	Padley 1991
316	Carlisle (CS)	Armour	2.461	Hamata links (iron).		Period 8B	Padley 1991
317	Carlisle (CS)	Armour	2.466	Hamata link (iron, incomplete).		Period 4A	Padley 1991
318	Carlisle (CS)	Armour	2.468	Hamata link (iron).		Period 2	Padley 1991
319	Carlisle (CS)	Armour	3.1261	Shield cover.		Period 4C	Padley and Winterbottom 1991
320	Carlisle (CS)	Armour	3.1262	Patch (for cover?).		Period 4C	Padley and Winterbottom 1991
321	Carlisle (CS)	Armour	3.1263	Shield cover(?).		Period 4C	Padley and Winterbottom 1991
322	Carlisle (CS)	Armour	3.1264	Shield cover(?).		Period 4C	Padley and Winterbottom 1991
323	Carlisle (CS)	Armour	3.1265	Shield cover(?).		Period 8B	Padley and Winterbottom 1991
324	Carlisle (CS)	Armour	3.1266	Shoulder panel/reinforcement(?). Goat or deer skin.		Period 4C	Padley and Winterbottom 1991
325	Carlisle (CS)	Harness	2.143	Phalera backing.		Period 4A	Padley 1991
326	Carlisle (CS)	Harness	2.144	Phalera backing.		Period 4C	Padley 1991
327	Carlisle (CS)	Harness	2.145	Phalera backing.		Period 4B	Padley 1991
328	Carlisle (CS)	Harness	2.146	Phalera backing.		Period 4A	Padley 1991
329	Carlisle (CS)	Harness	2.147	Phalera backing fragment.		Period 4-5	Padley 1991
330	Carlisle (CS)	Harness	2.148	Phalera attachment strip.		Period 4C	Padley 1991
331	Carlisle (CS)	Harness	2.153	Horse-brass.		Period 4B	Padley 1991
332	Carlisle (CS)	Harness	2.154	Horse-brass.		Period 4B	Padley 1991
333	Carlisle (CS)	Harness	3.1259	Saddle pommel facing.		Period 2-3	Padley and Winterbottom 1991
334	Carlisle (CS)	Harness	3.1260	Chamfron lining.		Period 3A	Padley and Winterbottom 1991
335	Carlisle (CS)	Communication	2.336	Stylus.			Padley 1991
336	Carlisle (CS)	Communication	2.337	Stylus.		Period 6A	Padley 1991
337	Carlisle (CS)	Communication	2.338	Stylus.		Period 4C	Padley 1991
338	Carlisle (CS)	Communication	2.339	Stylus.		Period 8A	Padley 1991
339	Carlisle (CS)	Communication	2.340	Stylus.		Period 4A	Padley 1991

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
340	Carlisle (CS)	Communication	2.341	Stylus.		Period 3B	Padley 1991
341	Carlisle (CS)	Communication	2.342	Stylus.		Period 4C	Padley 1991
342	Carlisle (CS)	Communication	2.343	Stylus.			Padley 1991
343	Carlisle (CS)	Communication	2.344	Stylus.		Period 6A	Padley 1991
344	Carlisle (CS)	Communication	2.345	Stylus.		Period 5	Padley 1991
345	Carlisle (CS)	Communication	2.346	Stylus.		Period 8A	Padley 1991
346	Carlisle (CS)	Communication	2.347	Stylus.		Period 6A	Padley 1991
347	Carlisle (CS)	Communication	2.348	Stylus.		Period 6A	Padley 1991
348	Carlisle (CS)	Communication	2.349	Stylus.		Period 4-5	Padley 1991
349	Carlisle (CS)	Communication	2.350	Stylus.		Period 4A	Padley 1991
350	Carlisle (CS)	Communication	2.351	Stylus.		Period 4A	Padley 1991
351	Carlisle (CS)	Communication	2.352	Stylus.		Period 5	Padley 1991
352	Carlisle (CS)	Communication	2.353	Stylus.		Period 11-12	Padley 1991
353	Carlisle (CS)	Communication	2.535	Label (lead).		Period 8B	Padley 1991
354	Carlisle (CS)	Communication	2.536	Seal.		Period 9	Padley 1991
355	Carlisle (CS)	Communication	3.795	Writing tablet fragments, type 1i.		Period 4A	Tomlin 1991b
356	Carlisle (CS)	Communication	3.796	Writing tablet leaf type 1i.		Period 4A	Tomlin 1991b
357	Carlisle (CS)	Communication	3.797	Writing tablet leaf type 1i.		Period 4A	Tomlin 1991b
358	Carlisle (CS)	Communication	3.798	Writing tablet fragments, type 1i.		Period 3-4	Tomlin 1991b
359	Carlisle (CS)	Communication	3.799	Writing tablet leaf type 1i.		Period 3B	Tomlin 1991b
360	Carlisle (CS)	Communication	3.800	Writing tablet type 1ii.		Period 7	Tomlin 1991b
361	Carlisle (CS)	Communication	3.801	Writing tablet type 1ii.		Period 3B	Tomlin 1991b
362	Carlisle (CS)	Communication	3.802	Writing tablet type 1ii.		Period 4A	Tomlin 1991b
363	Carlisle (CS)	Communication	3.803	Writing tablet type 1ii.		Period 3B	Tomlin 1991b
364	Carlisle (CS)	Communication	3.804	Writing tablet type 1ii.		Period 3B	Tomlin 1991b
365	Carlisle (CS)	Communication	3.805	Writing tablet type 1ii.		Period 3A	Tomlin 1991b
366	Carlisle (CS)	Communication	3.806	Writing tablet type 1ii.		Period 3A	Tomlin 1991b
367	Carlisle (CS)	Communication	3.807	Writing tablet type 1ii.		Period 3A	Tomlin 1991b
368	Carlisle (CS)	Communication	3.808	Writing tablet type 1iii. 'You are to give to Macrinus…'		Period 4A	Tomlin 1991b
369	Carlisle (CS)	Communication	3.809	Writing tablet type 1iii.		Period 3A/B	Tomlin 1991b
370	Carlisle (CS)	Communication	3.810	Writing tablet type 1iii. 'To Kimius Sedatus'.		Period 3A	Tomlin 1991b
371	Carlisle (CS)	Communication	3.811	Writing tablet type 1iii. 'In Britan(n)ia'.		Period 3A	Tomlin 1991b

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
372	Carlisle (CS)	Communication	3.812	Writing tablet type 1iii.		Period 3A	Tomlin 1991b
				'To Domitius Tertius, maltster(?)/goldsmith at Carlisle'			
373	Carlisle (CS)	Communication	3.813	Writing tablet type 1iii.		Period 3A	Tomlin 1991b
				'at Trimontium (Newstead) or Luguvalium, to M. Iulius Martialis'			
374	Carlisle (CS)	Communication	3.815	Writing tablet type 2i.		Period 3A	Tomlin 1991b
375	Carlisle (CS)	Communication	3.816	Writing tablet type 2ii.		Period 4B	Tomlin 1991b
376	Carlisle (CS)	Communication	3.817	Writing tablet(?).		Period 4A	Tomlin 1991b
377	Carlisle (CS)	Communication	3.818	Writing tablet(?).		Period 4A	Tomlin 1991b
378	Carlisle (CS)	Communication	3.819	Writing tablet(?).		Period 3B	Tomlin 1991b
379	Carlisle (CS)	Communication	3.1268	Leather document case(?). Sealed with stitching.		Period 6-7	Padley and Winterbottom 1991
380	Carlisle	Communication	5.41	Seal box base.	Posthole.	Period 4B	C. Howard-Davis in Bates et al 2009
381	(Millennium Project)	Communication	5.383	Seal box lid.	Posthole, building (7399).	Period 8B	C. Howard-Davis in Bates et al 2009
382	Carlisle (MP)	Communication	6.357	Stylus, wedge end.	Robber trench fill, barrack (2059).	Period 4A	C. Howard-Davis in Bates et al 2009
383	Carlisle (MP)	Communication	6.447	Stylus(?).	Robber trench fill, barrack (2059).	Period 4A	C. Howard-Davis in Bates et al 2009
384	Carlisle (MP)	Communication	6.1652	Stylus, wedge end.	Workshop (4006).	Period 3B	C. Howard-Davis in Bates et al 2009
385	Carlisle (MP)	Communication	6.1717	Stylus, wedge end.	Workshop (4657).	Period 3C	C. Howard-Davis in Bates et al 2009
386	Carlisle (MP)	Communication	6.1734	Pen/goad.	Workshop (4657).	Period 3C	C. Howard-Davis in Bates et al 2009
387	Carlisle (MP)	Communication	6.1794	Stylus, wedge end.	Construction trench, workshop (4657).	Period 3C	C. Howard-Davis in Bates et al 2009
388	Carlisle (MP)	Communication	6.1812	Stylus, wedge end.	Construction trench, workshop (4656).	Period 3A	C. Howard-Davis in Bates et al 2009

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
389	Carlisle (MP)	Communication	6.1816	Plain stylus, parallel point and wedge end.	Workshop (4654).	Period 3A	C. Howard-Davis in Bates et al 2009
390	Carlisle (MP)	Communication	2.2676	Stylus with small wedge end,	External deposit.	Period 5D	C. Howard-Davis in Bates et al 2009
391	Carlisle (MP)	Communication		decorated with wedges.			
392	Carlisle (MP)	Communication	6.2804	Stylus, wedge eraser only.	Road (7217).	Period 4B	C. Howard-Davis in Bates et al 2009
393	Carlisle (MP)	Communication	6.2808	Stylus, plain.	Posthole, principia (5688).	Period 4B	C. Howard-Davis in Bates et al 2009
394	Carlisle (MP)	Communication	6.2983	Stylus, plain.	Road (7476).	Period 3A	C. Howard-Davis in Bates et al 2009
395	Carlisle (MP)	Communication	6.3116	Stylus, plain.	Workshop (7200).	Period 3C	C. Howard-Davis in Bates et al 2009
396	Carlisle (MP)	Communication	6.3185	Stylus, wedge eraser, decorative rilling.	Posthole, workshop (7200).	Period 3C	C. Howard-Davis in Bates et al 2009
397	Carlisle (MP)	Communication	6.3226	Stylus, wedge eraser. Inlaid bands.	Construction trench, principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
398	Carlisle (MP)	Communication	6.3237	Stylus, inlaid copper alloy strip.	Construction trench, principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
399	Carlisle (MP)	Communication	6.3296	Stylus, plain.	Workshop (7394).	Period 3B	C. Howard-Davis in Bates et al 2009
400	Carlisle (MP)	Communication	6.3304	Stylus, wedge eraser.	Principia (7391).	Period 3B	C. Howard-Davis in Bates et al 2009
401	Carlisle (MP)	Communication	6.3314	Stylus, wedge eraser.	External deposit.	Period 3A	C. Howard-Davis in Bates et al 2009
402	Carlisle (MP)	Communication	6.3497	Stylus, wedge eraser.			C. Howard-Davis in Bates et al 2009
403	Carlisle (MP)	Communication	6.3500	Stylus, poppy-shaped eraser.			C. Howard-Davis in Bates et al 2009
404	Carlisle (MP)	Communication	9.16-7	Stylus writing tablet (silver fir).	Barrack (4653).	Period 3A	C. Howard-Davis in Bates et al 2009
405	Carlisle (MP)	Communication	9.22	Stylus writing tablet (silver fir).	Gully fill (4637).	Period 2	C. Howard-Davis in Bates et al 2009
406	Carlisle (MP)	Communication	9.34	Stylus writing tablet (silver fir).	Road (7477).	Period 4A	C. Howard-Davis in Bates et al 2009

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
407	Carlisle (MP)	Armour	5.125	Belt plate (enamelled).	Road (4662).	Period 5B	C. Howard-Davis in Bates et al 2009
408	Carlisle (MP)	Armour	5.223	Lorica segmentata fitting.	Road (4661).	Period 3B	C. Howard-Davis in Bates et al 2009
409	Carlisle (MP)	Armour	5.228	Silvered/tinned apron mount.	Construction trench, barrack (3376).	Period 4A	C. Howard-Davis in Bates et al 2009
410	Carlisle (MP)	Armour	5.240	Helmet cheek piece binding.	External deposit.	Period 3B	C. Howard-Davis in Bates et al 2009
411	Carlisle (MP)	Armour	5.308	Cuirass hinge, lorica segmentata.	Demolition deposit, barrack (4653).	Period 3A	C. Howard-Davis in Bates et al 2009
412	Carlisle (MP)	Armour	5.496	Squamata scale/blank.	Road (7652).	Period 6B	C. Howard-Davis in Bates et al 2009
413	Carlisle (MP)	Armour	5.534	Squamata scales. 5 holes - two on side, one at base.	Stakehole (6014).	Period 5B	C. Howard-Davis in Bates et al 2009
414	Carlisle (MP)	Armour	5.547	Squamata scale.	Demolition deposite, principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
415	Carlisle (MP)	Armour	5.557	Squamata scale (iron). Copper-alloy wire remains.	External deposit.	Period 5A	C. Howard-Davis in Bates et al 2009
416	Carlisle (MP)	Armour	5.558	Squamata scale. Four holes on one side, two on other and top, one bottom.	External deposit.	Period 5A	C. Howard-Davis in Bates et al 2009
417	Carlisle (MP)	Armour	5.559	Lobate hinge (lorica segmentata).	External deposit.	Period 5A	C. Howard-Davis in Bates et al 2009
418	Carlisle (MP)	Armour	5.647	Helmet cheek piece fastener.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
419	Carlisle (MP)	Armour	5.682	Lorica segmentata hinge fragment?	Drain, road (7476).	Period 3A	C. Howard-Davis in Bates et al 2009
420	Carlisle (MP)	Armour	5.702	Squamata scale. Two holes on sides, two on top. Unfinished?	External deposit, road (7477).	Period 4A	C. Howard-Davis in Bates et al 2009
421	Carlisle (MP)	Armour	5.704	Enamelled belt plate. Red and turquoise.	External deposit, road (7477).	Period 4A	C. Howard-Davis in Bates et al 2009
422	Carlisle (MP)	Armour	5.738	Lorica segmentata hook.	Construction trench, principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
423	Carlisle (MP)	Armour	5.752	Ear protector (fragmentary).	Construction trench, principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
424	Carlisle (MP)	Armour	5.773	Cheekpiece hinge.	Workshop (7200).	Period 3C	C. Howard-Davis in Bates et al 2009
425	Carlisle (MP)	Armour	5.784	Lorica segmentata hook.	Workshop (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
426	Carlisle (MP)	Armour	5.811	Ear/cheekpiece. Some leather attached.	Construction trench, workshop (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
427	Carlisle (MP)	Armour	5.876	Two squamata scales. Pair of holes on sides and top.	Robber trench, building (7394).	Period 3D	C. Howard-Davis in Bates et al 2009
428	Carlisle (MP)	Armour	5.925	Lorica segmentata tie.	Principia (7400).	Period 3A	C. Howard-Davis in Bates et al 2009
429	Carlisle (MP)	Armour	5.118	Squamata scales, (nine) wired together, overlapping right. Pairs of holes on sides and top.	Pit/well, praetorium (7392).	Period 3A	C. Howard-Davis in Bates et al 2009
430	Carlisle (MP)	Armour	5.1151	Decorative fitting - helmet mount?	Pit, praetorium (7392).	Period 3A	C. Howard-Davis in Bates et al 2009
431	Carlisle (MP)	Armour	5.1253	Lorica segmentata fastener.	(MIL 5)		C. Howard-Davis in Bates et al 2009
432	Carlisle (MP)	Armour	6.1	Lorica segmentata sheet.	Rampart dump (7655).	Period 8E	C. Howard-Davis in Bates et al 2009
433	Carlisle (MP)	Armour	6.41	Armour fragment(?).	Road (7646).	Period 6B	C. Howard-Davis in Bates et al 2009
434	Carlisle (MP)	Armour	6.61	Segmented arm-guard. Connected by rivets, not ties.	Road (7646).	Period 6A	C. Howard-Davis in Bates et al 2009
435	Carlisle (MP)	Armour	6.62	Pronged plume holder(?).	Road (7646).	Period 6A	C. Howard-Davis in Bates et al 2009
436	Carlisle (MP)	Armour	6.63	Squamata scales, overlapping.	Road (7646).	Period 6A	C. Howard-Davis in Bates et al 2009
437	Carlisle (MP)	Armour	6.108	Squamata scales, copper alloy wire.	External deposit.	Period 5	C. Howard-Davis in Bates et al 2009
438	Carlisle (MP)	Armour	6.110	Squamata scales, copper alloy wire.	External deposit.	Period 5	C. Howard-Davis in Bates et al 2009
439	Carlisle (MP)	Armour	6.186	Squamata scales, copper alloy wire.	Road (7645).	Period 4A/B	C. Howard-Davis in Bates et al 2009

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No.	Site	Category	Catalogue no.	Artefact	Context	Period	Reference.
440	Carlisle (MP)	Armour	6.2657	Squamata scales, decorated, under ferrous plate. Patterned scales (3Fe, 1Cu-alloy).	External deposit.	Period 5D	C. Howard-Davis in Bates et al 2009
441	Carlisle (MP)	Armour	6.2682	Squamata scale.	Building (7473).	Period 5C	C. Howard-Davis in Bates et al 2009
442	Carlisle (MP)	Armour	6.2718	Squamata scale.	External deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
443	Carlisle (MP)	Armour	6.2721	Lorica segmentata backplate.	External deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
444	Carlisle (MP)	Armour	6.2722	Squamata scales, 21 in 3 rows, reducing in size upwards.	External deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
445	Carlisle (MP)	Armour	6.2723	Cheekpiece.	External deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
446	Carlisle (MP)	Armour	6.2724	Leg greave.	External deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
447	Carlisle (MP)	Armour	6.2733	Squamata scale with copper wire.	External deposit.	Period 5A	C. Howard-Davis in Bates et al 2009
448	Carlisle (MP)	Armour	6.2735	Squamata scale with iron wire.	External deposit.	Period 5A	C. Howard-Davis in Bates et al 2009
449	Carlisle (MP)	Armour	6.2739	Lorica segmentata plate.	External deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
450	Carlisle (MP)	Armour	6.2745	Lorica segmentata fragments.	Road (7217).	Period 4B	C. Howard-Davis in Bates et al 2009
451	Carlisle (MP)	Armour	6.2749	Lorica segmentata sheet(?).	External deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
452	Carlisle (MP)	Armour	6.2750	Lorica segmentata(?). Folded, originally with hide in middle?	External deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
453	Carlisle (MP)	Armour	6.2751-7	Lorica segmentata fragments.	External deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
454	Carlisle (MP)	Armour	6.2759	Lorica segmentata plate.	External deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
455	Carlisle (MP)	Armour	6.2760	Squamata scales with iron wire (brassed?).	External deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
456	Carlisle (MP)	Armour	6.2767-8	Lorica segmentata fragments.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
457	Carlisle (MP)	Armour	6.2772	Hamata fitting? S-shaped bar.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009

Appendix III.1: Material Culture - Militaria

No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
458	Carlisle (MP)	Armour	6.2773	Squamata scale (iron covered by copper-alloy sheet).	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
459	Carlisle (MP)	Armour	6.2780	Lorica segmentata fragment.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
460	Carlisle (MP)	Armour	6.2841	Squamata scale.	Road (7217).	Period 4B	C. Howard-Davis in Bates et al 2009
461	Carlisle (MP)	Armour	6.2861-6	Lorica segmentata/plate mail fragments.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
462	Carlisle (MP)	Armour	6.2878	Lorica segmentata fragments.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
463	Carlisle (MP)	Armour	6.2882	Lorica segmentata fragments.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
464	Carlisle (MP)	Armour	6.2883	Segmented arm-guards.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
465	Carlisle (MP)	Armour	6.2885	Squamata scales (rigid; ferrous with copper alloy sheath).	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
466	Carlisle (MP)	Armour	6.2886	Segmented arm-guard.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
467	Carlisle (MP)	Armour	6.2890-1	Lorica segmentata fragments.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
468	Carlisle (MP)	Armour	6.2893	Lorica segmentata fragment.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
469	Carlisle (MP)	Armour	6.2895	Squamata scale (iron with copper alloy wire).	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
470	Carlisle (MP)	Armour	6.2936-8	Lorica segmentata fragments.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
471	Carlisle (MP)	Armour	6.2941	Lorica segmentata fragments.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
472	Carlisle (MP)	Armour	6.2943	Lorica segmentata fragments.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
473	Carlisle (MP)	Armour	6.2945-6	Lorica segmentata fragments.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
474	Carlisle (MP)	Armour	6.2949	Lorica segmentata fragment.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
475	Carlisle (MP)	Armour	6.3023	Lorica segmentata fragment.	Road (7477).	Period 4A	C. Howard-Davis in Bates et al 2009

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
476	Carlisle (MP)	Armour	6.3026	Lorica segmentata fragment.	Workshop (5689).	Period 4A	C. Howard-Davis in Bates et al 2009
477	Carlisle (MP)	Armour	6.3033	Lorica segmentata fragments.	Workshop (7200).	Period 3C	C. Howard-Davis in Bates et al 2009
478	Carlisle (MP)	Armour	6.3097	Squamata scale(?) (Tear-shaped).	Construction trench, principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
479	Carlisle (MP)	Armour	6.3117	Lorica segmentata fragment.	Workshop (7200).	Period 3C	C. Howard-Davis in Bates et al 2009
480	Carlisle (MP)	Armour	6.3356	Lorica segmentata fragment?	Principia (7391).	Period 3B	C. Howard-Davis in Bates et al 2009
481	Carlisle (MP)	Armour	6.3448	Lorica segmentata chest/backplate(?).			C. Howard-Davis in Bates et al 2009
482	Carlisle (MP)	Armour	6.3455	Lorica segmentata fragment.			C. Howard-Davis in Bates et al 2009
483	Carlisle (MP)	Horse harness	5.217	Openwork saddle plate fragment(?).	Robber pit, workshop (4006).	Period 3D	C. Howard-Davis in Bates et al 2009
484	Carlisle (MP)	Horse harness	5.340	Harness junction - pectoral(?).	Construction trench, workshop (4654).	Period 3A	C. Howard-Davis in Bates et al 2009
485	Carlisle (MP)	Horse harness	5.363	Ornate saddle plate - niello flower pattern.	External deposit.	Period 8F	C. Howard-Davis in Bates et al 2009
486	Carlisle (MP)	Horse harness	5.588	Lunate horse pendant.	Road (7217).	Period 4B	C. Howard-Davis in Bates et al 2009
487	Carlisle (MP)	Horse harness	5.594	Lunate horse pendant.	Road (7217).	Period 4B	C. Howard-Davis in Bates et al 2009
488	Carlisle (MP)	Horse harness	5.643	Heart-shaped harness pendant.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
489	Carlisle (MP)	Horse harness	5.645	Lunate horse pendant.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
490	Carlisle (MP)	Horse harness	5.646	Lunate horse pendant.	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
491	Carlisle (MP)	Horse harness	5.737	Small saddle plate.	Construction trench, principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
492	Carlisle (MP)	Horse harness	5.828	Lunate horse pendant(?).	Construction trench, workshop (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
493	Carlisle (MP)	Horse harness	5.848	Saddle plate fixing strip.	Road (7476).	Period 3C	C. Howard-Davis in Bates et al 2009
494	Carlisle (MP)	Horse harness	5.1258	Ornate saddle plate - niello flower pattern.			C. Howard-Davis in Bates et al 2009
495	Carlisle (MP)	Horse harness	6.293	Snaffle bit.	Barrack (669).	Period 6C	C. Howard-Davis in Bates et al 2009
496	Carlisle (MP)	Horse harness	10.43	Saddle cover (22 joining components).	Pit fill, workshop (4657).	Period 3C	Winterbottom and Mould in Bates et al 2009
497	Carlisle (MP)	Horse harness	10.44	Saddle cover (14 joining components).	Pit fill, workshop (4657).	Period 3C	Winterbottom and Mould in Bates et al 2009
498	Carlisle (MP)	Horse harness	10.47	Horse barding.	External deposit.	Period 3B	Winterbottom and Mould in Bates et al 2009
499	Carlisle (MP)	Horse harness	10.48	Horse barding (eight joining components).	Workshop (4657).	Period 3B	Winterbottom and Mould in Bates et al 2009
500	Carlisle (MP)	Horse harness	10.49	Blanks for horse barding pockets?	Workshop (4657).	Period 3B	Winterbottom and Mould in Bates et al 2009
501	Carlisle (MP)	Horse harness	10.50	Horse barding pieces(?).	Workshop (4657).	Period 3B	Winterbottom and Mould in Bates et al 2009
502	Carlisle (MP)	Horse harness	10.53	Horse harness(?).	Road 7476.	Period 3C	Winterbottom and Mould in Bates et al 2009
503	Carlisle (MP)	Label	5.583	Stud/rivet with incription:	Gully fill, road (7217)	Period 4B	C. Howard-Davis in Bates et al 2009
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505	Carlisle (MP)	Weaponry	6.29	Arrowhead (bodkin).	Road (7646).	Period 6B	C. Howard-Davis in Bates et al 2009

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
506	Carlisle (MP)	Weaponry	6.54	Arrowhead (bodkin).	Road (7646).	Period 6B	C. Howard-Davis in Bates et al 2009
507	Carlisle (MP)	Weaponry	6.83	Arrowhead (bodkin, stumpy).	External deposit.	Period 5	C. Howard-Davis in Bates et al 2009
508	Carlisle (MP)	Weaponry	6.106	Arrowhead (triangular section).	External deposit.	Period 5	C. Howard-Davis in Bates et al 2009
509	Carlisle (MP)	Weaponry	6.131	Spearhead(?).	Rampart dump (7658).	Period 4A/B	C. Howard-Davis in Bates et al 2009
510	Carlisle (MP)	Weaponry	6.179	Spearhead (resembles large fire arrow).	Road (7645).	Period 4A/B	C. Howard-Davis in Bates et al 2009
511	Carlisle (MP)	Weaponry	6.190	Spearhead (leaf-shaped).	Road (7645).	Period 4A/B	C. Howard-Davis in Bates et al 2009
512	Carlisle (MP)	Weaponry	6.275	Spearhead (socketed projectile).	Demolition deposit, Barrack (669).	Period 6D	C. Howard-Davis in Bates et al 2009
513	Carlisle (MP)	Weaponry	6.444	Spearhead (ribbed, leaf-shaped).	Demolition deposit, barrack (2059).	Period 4A	C. Howard-Davis in Bates et al 2009
514	Carlisle (MP)	Weaponry	6.1345	Spearhead (socketed, leaf shaped).	Road (4662).	Period 5D	C. Howard-Davis in Bates et al 2009
515	Carlisle (MP)	Weaponry	6.1440	Shield reinforcement.	External deposit.	Period 5C	C. Howard-Davis in Bates et al 2009
516	Carlisle (MP)	Weaponry	6.1596	Spearhead (socketed, leaf shaped).	Smithy (2765).	Period 4B	C. Howard-Davis in Bates et al 2009
517	Carlisle (MP)	Weaponry	6.1597	Spearhead (socketed, ogival blade).	Smithy (2765).	Period 4B	C. Howard-Davis in Bates et al 2009
518	Carlisle (MP)	Weaponry	6.1650	Ballista bolthead.	Construction trench, barrack (3772).	Period 3B	C. Howard-Davis in Bates et al 2009
519	Carlisle (MP)	Weaponry	6.1747	Pilum(?).	Workshop (4657).	Period 3C	C. Howard-Davis in Bates et al 2009
520	Carlisle (MP)	Weaponry	6.1774	Shield fitting.	Drain, road (7478).	Period 3C	C. Howard-Davis in Bates et al 2009
521	Carlisle (MP)	Weaponry	6.2677	Ballista bolthead (tanged).	Gully fill (5948).	Period 5D	C. Howard-Davis in Bates et al 2009
522	Carlisle (MP)	Weaponry	6.2678	Ballista bolthead (tanged).	Gully fill (5948).	Period 5D	C. Howard-Davis in Bates et al 2009

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
523	Carlisle (MP)	Weaponry	6.2689	Ballista bolthead (tanged).	Demolition deposit, principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
524	Carlisle (MP)	Weaponry	6.2696	Shield reinforcement.	Demolition deposit, principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
525	Carlisle (MP)	Weaponry	6.2698	Arrowhead (triangular section).	Demolition deposit, principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
526	Carlisle (MP)	Weaponry	6.2699	Arrowhead (triangular section).	Demolition deposit, principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
527	Carlisle (MP)	Weaponry	6.2701	Ballista bolthead (tanged).	Demolition deposit, principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
528	Carlisle (MP)	Weaponry	6.2704	Lance/spear head (flat, ash shaft in situ).	Demolition deposit, principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
529	Carlisle (MP)	Weaponry	6.2707	Ballista bolthead.	Demolition deposit, principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
530	Carlisle (MP)	Weaponry	6.2708-10	Ballista bolthead (tanged).	Demolition deposit, principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
531	Carlisle (MP)	Weaponry	6.2711	Arrowhead (pyramidal, tanged).	Demolition deposit, principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
532	Carlisle (MP)	Weaponry	6.2712	Arrowhead (trilobite, tanged).	Demolition deposit, principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
533	Carlisle (MP)	Weaponry	6.2713	Ballista bolthead (pyramidal, tanged).	Demolition deposit, principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
534	Carlisle (MP)	Weaponry	6.2714	Arrowhead (trilobite, tanged).	Principia (5688).	Period 4B	C. Howard-Davis in Bates et al 2009
535	Carlisle (MP)	Weaponry	6.2715	Arrowhead (flat, barbed).	Principia (5688).	Period 4B	C. Howard-Davis in Bates et al 2009

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
536	Carlisle (MP)	Weaponry	6.2716	Arrowhead (trilobite, tanged).	Principia (5688).	Period 4B	C. Howard-Davis in Bates et al 2009
537	Carlisle (MP)	Weaponry	6.2717	Spear (flat, socketed; remains of shaft and lather sheath(?) present).	Demolition deposit, principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
538	Carlisle (MP)	Weaponry	6.2720	Shield reinforcement.	External deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
539	Carlisle (MP)	Weaponry	6.2725	Arrowhead (triangular section).	External deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
540	Carlisle (MP)	Weaponry	6.2728-30	Ballista bolthead (pyramidal, tanged).	Principia (5688).	Period 4B	C. Howard-Davis in Bates et al 2009
541	Carlisle (MP)	Weaponry	6.2731	Arrowhead (triangle section, barbed?).	Principia (5688).	Period 4B	C. Howard-Davis in Bates et al 2009
542	Carlisle (MP)	Weaponry	6.2732	Arrowhead (pyramidal, tanged).	External deposit.	Period 5A	C. Howard-Davis in Bates et al 2009
543	Carlisle (MP)	Weaponry	6.2734	Arrowhead (trilobite, tanged).	External deposit.	Period 5A	C. Howard-Davis in Bates et al 2009
544	Carlisle (MP)	Weaponry	6.2738	Arrowhead (trilobite, tanged).	External deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
545	Carlisle (MP)	Weaponry	6.2746	Arrowhead (pyramidal, tanged).	External deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
546	Carlisle (MP)	Weaponry	6.2748	Arrowhead (trilobite, tanged).	External deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
547	Carlisle (MP)	Weaponry	6.2758	Arrowhead (triangular section).	External deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
548	Carlisle (MP)	Weaponry	6.2762	Ballista bolt (tanged).	Principia (5688).	Period 4B	C. Howard-Davis in Bates et al 2009
549	Carlisle (MP)	Weaponry	6.2763	Arrowhead (flat, barbed).	Principia (5688).	Period 4B	C. Howard-Davis in Bates et al 2009
550	Carlisle (MP)	Weaponry	6.2765	Ballista bolthead (pyramidal, tanged).	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
551	Carlisle (MP)	Weaponry	6.2771	Ballista bolthead (tanged).	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
552	Carlisle (MP)	Weaponry	6.2880	Projectile head (square section tang, ash shaft).	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
553	Carlisle (MP)	Weaponry	6.2881	Ballista bolthead (tanged).	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
554	Carlisle (MP)	Weaponry	6.2888	Arrowhead (triangle section).	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
555	Carlisle (MP)	Weaponry	6.2898	Standard(?).	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
556	Carlisle (MP)	Weaponry	6.2934	Ballista bolthead (tanged).	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
557	Carlisle (MP)	Weaponry	6.2958	Ballista bolthead (pyramidal, tanged).	Road (7477).	Period 4B	C. Howard-Davis in Bates et al 2009
558	Carlisle (MP)	Weaponry	6.2959	Ballista bolthead (pyramidal, tanged).	Pit fill, workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
559	Carlisle (MP)	Weaponry	6.2972	Spearhead (lozenge section, long, socketed).	Road (7477).	Period 4A	C. Howard-Davis in Bates et al 2009
560	Carlisle (MP)	Weaponry	6.3167	Caltrop.	Construction deposit, principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
561	Carlisle (MP)	Weaponry	6.3184	Ballista bolthead (socketed).	Construction deposit, principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
562	Carlisle (MP)	Weaponry	6.3230	Ballista bolthead (conical socketed).	Construction deposit, principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
563	Carlisle (MP)	Weaponry	6.3443	Arrowhead (pyramidal, tanged).			C. Howard-Davis in Bates et al 2009
564	Carlisle (MP)	Weaponry	6.3444	Ballista bolthead (pyramidal, tanged).			C. Howard-Davis in Bates et al 2009
565	Carlisle (MP)	Weaponry	6.3445	Arrowhead (pyramidal, tanged).			C. Howard-Davis in Bates et al 2009
566	Carlisle (MP)	Weaponry	9.25	Ballista bolt storage rack/brush or broomhead?	Demolition deposit, principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
567	Carlisle (MP)	Weaponry	9.26-7	Ballista mechanism components?	Demolition deposit, principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
568	Carlisle (MP)	Weaponry	10.54	Shield cover fragment.	Structure (7474).	Period 3B	Winterbottom and Mould in Bates et al 2009

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No.	Site	Category	Catalogue no.	Artefact	Context (IK)	Period (IK)	Reference.
569	Carlisle (MP)	Weaponry	10.55	Shield cover fragment.	Pit fill, workshop (4657).	Period 3C	Winterbottom and Mould in Bates et al 2009
570	Carlisle (MP)	Weaponry	10.56-7	Shield cover fragment.	Road (7217).	Period 4B	Winterbottom and Mould in Bates et al 2009
571	Carlisle (MP)	Weaponry	10.58	Shield cover fragment.	Principia (5688).	Period 4B	Winterbottom and Mould in Bates et al 2009
572	Carlisle (MP)	Weaponry	10.59	Shield cover fragment.	Workshop (5689).	Period 4B	Winterbottom and Mould in Bates et al 2009
573	Carlisle (MP)	Weaponry	10.24	Ridged ivory sword grip.	Barrack (3772).	Period 3B	C. Howard-Davis in Bates et al 2009
574	Carlisle (MP)	Weaponry	10.48-50	Ridged ivory sword grips.	External deposit, road (7477).	Period 4B	C. Howard-Davis in Bates et al 2009
575	Carlisle (MP)	Weaponry	10.69	Ridged ivory sword grip.	Praetorium (7392).	Period 3A	C. Howard-Davis in Bates et al 2009
576	Carlisle (MP)	Weaponry	10.70	Ridged ivory sword grip (6 rather than 3 ridges - spatha?).	Praetorium (7392).	Period 3A	C. Howard-Davis in Bates et al 2009

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference
III.2. Construction, clearance, and maintenance tools.							
1	Vindolanda	998	Pick/hammer	Stonemasonry		III	Blake 1999
2	Vindolanda	999	Pick/hammer	Stonemasonry		III	Blake 1999
3	Vindolanda	8445	Small mason's pick (Manning 3)	Stonemasonry	Beneath floor of corridor in schola.	II/III	Blake 2003a
4	Vindolanda	W2001-08	Mason's pick/toggle/handle(?)	Stonemasonry	Room 3, schola.	II/III	Birley 2003b
5	Vindolanda	1618	Pick/hammer	Stonemasonry		IV	Blake 1999
6	Vindolanda	5149	Mason's trowel	Construction		III	Blake 1999
7	Vindolanda	W2001-91	Wooden plasterer's float	Construction	Beneath floor of corridor in schola.	II/III	Blake 2003a
8	Vindolanda	8374	Lead plumb bob	Construction	Floor of schola corridor.	IV	Blake 2003a
9	Vindolanda	8401	Plasterer's trowel (Manning type 1)	Construction	Floor of schola corridor.	IV	Blake 2003a
10	Vindolanda	8407	Trowel handle (?)	Construction	Floor of room 4, schola building.	IV	Blake 2003a
11	Vindolanda	8613	Mason's trowel fragment	Construction	Within false wall in Period IV schola.	IV	Blake 2003a
12	Vindolanda	2009	Axe head	Woodworking		III	Blake 1999
13	Vindolanda	5904	Axe head	Woodworking		V	Blake 1999
14	Vindolanda	3339	Saw blade	Woodworking		III	Blake 1999
15	Vindolanda	3619	Saw blade	Woodworking		III	Blake 1999
16	Vindolanda	4567	Saw blade	Woodworking		III	Blake 1999
17	Vindolanda	5112	Saw	Woodworking		III	Blake 1999
18	Vindolanda	1832	Chisel	Woodworking		III	Blake 1999
19	Vindolanda	3796	Mortice chisel	Woodworking		V	Blake 1999
20	Vindolanda	4471	Firmer chisel	Woodworking		V	Blake 1999
21	Vindolanda	5055	Firmer chisel	Woodworking		IV	Blake 1999
22	Vindolanda	5277	Mortice chisel	Woodworking		IV	Blake 1999
23	Vindolanda	6071	Firmer chisel	Woodworking		III	Blake 1999

Appendix III.2: Material Culture - Construction

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference
24	Vindolanda	3522	Bradawl	Woodworking		III	Blake 1999
25	Vindolanda	4387	Gouge	Woodworking		V	Blake 1999
26	Vindolanda	88.578	Industrial plane	Woodworking		III	Blake 1999
27	Vindolanda	3441	Plane blade	Woodworking		VI	Blake 1999
28	Vindolanda	8450	Carpenter's file	Woodworking	Period I fort ditch.	I	Blake 2003a
29	Vindolanda	W2001-110	Wooden mallet head	Woodworking	Period I fort ditch.	I	Blake 2003a
30	Vindolanda	W2001-45	Wooden mallet	Woodworking	Period I fort ditch.	I	Blake 2003a
31	Vindolanda	8156	Iron spoon drill bit	Woodworking	Laminate layer, room 3 of schola.	II/III	Blake 2003a
32	Vindolanda	8319	Joiner's dog	Woodworking	Demolition layer in Period I ditch.	II/III	Blake 2003a
33	Vindolanda	8424	Iron plane blade	Woodworking	Beneath floor of corridor in schola.	II/III	Blake 2003a
34	Vindolanda	8195	Woodworker's file(?)	Woodworking	Demolition layer in Period I ditch.	II/III	Blake 2003a
35	Vindolanda	3981	Brush	Maintenance		I/II	Blake 1999
36	Vindolanda	4102	Wrecking bar	Demolition		III	Blake 1999
37	Elginhaugh	10.5.2.143.	Mason's wedge.	Stonemasonry	Upper fill, pit 1433, annexe trench 9.	A.D. 79-87	Hanson 2007c.
38	Elginhaugh	10.5.2.137.	Chisel	Woodworking	Demolition spread over Barracks 5 and 6.	A.D. 79-87	Hanson 2007c.
39	Elginhaugh	10.5.2.138.	Chisel	Woodworking	Demolition layer, Via Sagularis, SW of fort.	A.D. 79-87	Hanson 2007c.
40	Elginhaugh	10.5.2.139.	Chisel (?)	Woodworking	Demolition fill, latrine pit 2429, Barrack 12.	A.D. 79-87	Hanson 2007c.
41	Elginhaugh	10.5.2.131.	Crowbar	Demolition	Secondary road surface, annexe trench 1.	A.D. 79-87	Hanson 2007c.
42	Elginhaugh						

Appendix III.2: Material Culture - Construction

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference
43	Housesteads	329	Spade sheath/joiner's dog	Woodworking(?)	Barrack block XIII		Rushworth 2009
44	Housesteads	342	Chisel	Woodworking	Barrack block XIII		Rushworth 2009
45	Housesteads	343	Chisel	Woodworking	Barrack block XIII		Rushworth 2009
46	South Shields	5.46	Masonry cramp	Construction			Allason-Jones & Miket 1984
47	South Shields	5.12	Hammer-head	Construction			Allason-Jones & Miket 1984
48	South Shields	5.13	Axe-hammer	Construction			Allason-Jones & Miket 1984
49	South Shields	5.14	Wedge(?)	Woodworking			Allason-Jones & Miket 1984
50	South Shields	5.15	Chisel	Woodworking			Allason-Jones & Miket 1984
51	South Shields	5.11	Turf cutter	Construction/maintenance			Allason-Jones & Miket 1984
52	South Shields	2.1	Rake	Maintenance(?)			Allason-Jones & Miket 1984
53	South Shields	5.10.	Spade shoe	Maintenance(?)			Allason-Jones & Miket 1984
54	Hardknott	29	Trowel	Construction	Outside fort near south angle tower		Bidwell et al 1999
55	Hardknott	41	Nails.	Construction	Across fort		Bidwell et al 1999
56							
57	Ribchester	2.47	Dolabra(?)	Construction(?)	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
58	Ribchester	7.59	Spade.	Construction(?)	Demolition layer (W).	Phase 3	Buxton & Howard-Davis 2000
59	Ribchester	7.60	Spade.	Construction(?)	Punic ditch upcast.	Phase 3	Buxton & Howard-Davis 2000
60	Ribchester	2.130	Claw hammer head.	Woodworking	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000

Appendix III.2: Material Culture - Construction

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference
61	Ribchester	2.131	Augur/spoon bit.	Woodworking	Spoil.		Buxton & Howard-Davis 2000
62	Ribchester	2.146	Chisel	Woodworking	Organic layer (N).	Phase 1:2	Buxton & Howard-Davis 2000
63	Ribchester	2.147	Chisel	Woodworking	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
64	Ribchester	2.148	Chisel	Woodworking	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
65	Ribchester	2.149	Chisel	Woodworking	Quarry fill.	Phase 5:1	Buxton & Howard-Davis 2000
66	Ribchester	2.150	Chisel	Woodworking	Quarry fill.	Phase 5:1	Buxton & Howard-Davis 2000
67	Ribchester	2.151	Chisel	Woodworking	Quarry fill.	Phase 5:1	Buxton & Howard-Davis 2000
68	Ribchester	2.152	Chisel	Woodworking	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
69	Ribchester	2.153	Chisel	Woodworking	Spoil.		Buxton & Howard-Davis 2000
70	Ribchester	7.56	Mallet.	Woodworking	Abandonment deposit (N).	Phase 1:2	Buxton & Howard-Davis 2000
71	Wallsend	59	Small pickaxe.	Construction(?)	Barrack XII room 3	Period 4+	A.T. Croom in Hodgson 2003
72	Birdoswald	7.78	Scoop/gouge.	Woodworking	Spur	Phase A3	Wilmott, Cool & Evans 2009
73	Birdoswald	7.79	Iron drill bit head(?).	Woodworking	Western Praetentura	Phase 6	Wilmott, Cool & Evans 2009
74	Carlisle (Castle Street)	2.358	Axe (Manning Type 3).	Woodworking/clearance		Period 8A	Padley 1991
75	Carlisle (CC)	2.359	Plane blade.	Woodworking		Period 4A	Padley 1991
76	Carlisle (CC)	2.361	Mortise chisel.	Woodworking		Period 6A	Padley 1991
77	Carlisle (CC)	2.362	Chisel(?).	Woodworking		Period 6A	Padley 1991
78	Carlisle (CC)	2.363	Chisel(?).	Woodworking		Period 4C	Padley 1991
79	Carlisle (CC)	2.364	Chisel(?).	Woodworking		Period 3B	Padley 1991

Appendix III.2: Material Culture - Construction

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference
80	Carlisle (CC)	2.366	Spoon-bit augur.	Woodworking		Period 12	Padley 1991
81	Carlisle (CC)	2.372	Turf-cutter.	Construction/maintenance		Period 4A	Padley 1991
82	Carlisle (CC)	3.828	Mallet.	Woodworking		Period 4C	Padley and Winterbottom 1991
83	Carlisle (Millennium Project)	9.15	Plasterer's float(?).	Construction	Barrack (4653).	Period 3A	C. Howard-Davis in Bates et al 2009
84	Carlisle (MP)	9.28	Ruler fragments(?).	Construction	Rubble spread, workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
85	Carlisle (MP)	6.1767	Baling/thatching needle(?).	Construction(?)	Construction trench, workshop (4654).	Period 3A	C. Howard-Davis in Bates et al 2009
86	Carlisle (MP)	6.2706	Turf cutter.	Construction(?)	Demolition deposit, principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
87	Carlisle (MP)	6.3215	Saw blade fragment.	Woodworking/construction	Construction trench, principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
88	Carlisle (MP)	6.3220	File blade.	Woodworking/construction	Construction trench, principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
89	Carlisle (MP)	6.2659	Plane blade(?).	Woodworking	External deposit.	Period 5D	C. Howard-Davis in Bates et al 2009
90	Carlisle (MP)	6.14	Chisel. Tapering, burnt.	Woodworking	External deposit.	Period 6B	C. Howard-Davis in Bates et al 2009
91	Carlisle (MP)	6.3012	Saw blade fragment.	Woodworking	Workshop (7396).	Period 4A	C. Howard-Davis in Bates et al 2009

Appendix III.3: Material Culture - Metalworking

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
III.3. Metalworking.							
1	Vindolanda	5329	Hammer.	Fine metalworking		IV	Blake 1999
2	Vindolanda	5301	Tongs.	Metalworking		V	Blake 1999
3	Vindolanda	3812	Tongs.	Fine metalworking (for holding crucibles or jewellery)		VI	Blake 1999
4	Vindolanda	4065	Punch.	Metalworking		III	Blake 1999
5	Vindolanda	4241	Punch.	Metalworking		IV	Blake 1999
6	Vindolanda	4282	Punch.	Metalworking		III	Blake 1999
7	Vindolanda	4486	Punch.	Fine metalworking		V	Blake 1999
8	Vindolanda	4540	Punch.	Fine metalworking		III	Blake 1999
9	Vindolanda	5114	Punch.	Metalworking		III/IV	Blake 1999
10	Vindolanda	5130	Punch.	Metalworking		V	Blake 1999
11	Vindolanda	5166	Punch.	Metalworking		III	Blake 1999
12	Vindolanda	5188	Punch.	Metalworking		V	Blake 1999
13	Vindolanda	5272	Punch.	Fine metalworking		V	Blake 1999
14	Vindolanda	5385	Punch.	Metalworking		V	Blake 1999
15	Vindolanda	5635	Punch.	Metalworking		IV	Blake 1999
16	Vindolanda	6597	Punch.	Metalworking		III	Blake 1999
17	Vindolanda	3731	File.	Metalworking		III	Blake 1999
18	Vindolanda	4060	File.	Metalworking		IV	Blake 1999
19	Vindolanda	4435	File.	Metalworking		III	Blake 1999
20	Vindolanda	5087	File.	Metalworking		IV	Blake 1999
21	Vindolanda	5299	File(?).	Metalworking		II	Blake 1999
22	Vindolanda	5304	File(?).	Metalworking		V	Blake 1999
23	Vindolanda	5636	File.	Metalworking		IV	Blake 1999
24	Vindolanda	5646	File.	Metalworking		IV	Blake 1999
25	Vindolanda	5647	File.	Metalworking		IV	Blake 1999
26	Vindolanda	5741	File.	Metalworking		V	Blake 1999
27	Vindolanda	5801	File.	Metalworking		IV	Blake 1999
28	Vindolanda	6504	File.	Metalworking		IV/V	Blake 1999
29	Vindolanda	6547	File.	Metalworking		IV	Blake 1999
30	Vindolanda	3686	Dividers.	Metalworking		IV	Blake 1999

Appendix III.3: Material Culture - Metalworking

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
31	Vindolanda	4500	Nail heading tool.	Metalworking		III	Blake 1999
32	Vindolanda	4136	Draw plate.	Metalworking		III	Blake 1999
33	Vindolanda	SF8809	Lead slide key blank.	Fine metalworking	Period II planked floor, below Period III floor.	Period II	Birley 2003b
34	Vindolanda	SF8605	Lead slide key blank. (Left by armourer in schola, or sign of criminal activity?)	Fine metalworking	Room 2, schola.	Period IV	Birley 2003b
35	Housesteads	345	Smith's punch(?)	Metalworking(?)			Rushworth 2009
36	Housesteads	347	Hand hammer	Metalworking	Barrack block XIII		Rushworth 2009
37	Housesteads		Ceramic moulds	Fine metalworking			Rushworth 2009
38	South Shields	9.8-9.9.	Crucibles	Fine metalworking			Allason-Jones & Miket 1984
39	South Shields	3.485-92	Dividers	Metalworking			Allason-Jones & Miket 1984
40	South Shields	9.7	Ceramic copper alloy mould	Fine metalworking			Allason-Jones & Miket 1984
41	South Shields	12.25-43	Whetstones	Maintenance			Allason-Jones & Miket 1984
42	Hardknott	63.1	Whetstone.	Maintenance			Bidwell et al 1999
43	Hardknott	63.2	Whetstone.	Maintenance			Bidwell et al 1999
44	Hardknott	63.3	Whetstone.	Maintenance			Bidwell et al 1999
45	Hardknott	63.4	Whetstone.	Maintenance			Bidwell et al 1999
46	Hardknott	63.5	Whetstone.	Maintenance	Destruction layer.		Bidwell et al 1999
47	Hardknott	63.6	Whetstone.	Maintenance			Bidwell et al 1999
48	Hardknott	63.7	Whetstone.	Maintenance	West angle tower.		Bidwell et al 1999
49	Hardknott	63.8	Whetstone.	Maintenance			Bidwell et al 1999
50	Hardknott	63.9	Whetstone.	Maintenance	Structure north of granary.		Bidwell et al 1999

Appendix III.3: Material Culture - Metalworking

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
51	Ribchester	1.225	Copper alloy mould(?).	Fine metalworking	Workshop (722).	Phase 4:2	Buxton & Howard-Davis 2000
52	Ribchester	1.226	Copper alloy ingot.	Fine metalworking	Sandy loam deposit.	Phase 5:1	Buxton & Howard-Davis 2000
53	Ribchester	1.259-267	Copper alloy scrap.	Raw material		Phase 1:2-5:2	Buxton & Howard-Davis 2000
54	Ribchester	2.138	Cold chisel (Romano-British).	Metalworking	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
55	Ribchester	2.139	Small anvil.	Metalworking/maintenance	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
56	Ribchester	2.140	Small anvil.	Metalworking/maintenance	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
57	Ribchester	2.141	Socketed tool.	Metalworking			Buxton & Howard-Davis 2000
58	Ribchester	2.142	Square-sectioned punch.	Metalworking			Buxton & Howard-Davis 2000
59	Ribchester	2.143	Square-sectioned punch.	Metalworking	Spoil.		Buxton & Howard-Davis 2000
60	Ribchester	2.144	Square-sectioned punch.	Metalworking	Spoil.		Buxton & Howard-Davis 2000
61	Ribchester	2.145	Punch(?).	Metalworking	Spoil.		Buxton & Howard-Davis 2000
62	Ribchester	3.48	Trial cast (hammer/cheekpiece).	Fine metalworking	Quarry fill.	Phase 5:2	Buxton & Howard-Davis 2000

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Appendix III.3: Material Culture - Metalworking

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
63	Ribchester	3.49	Trial cast (lock bolt?).	Fine metalworking			Buxton & Howard-Davis 2000
64	Ribchester	5.7	Hone.	Maintenance	Demolition layer (NE EM).	Phase 3	Buxton & Howard-Davis 2000
65	Ribchester	5.8	Hone.	Maintenance	Construction deposit (NW EM).	Phase 3	Buxton & Howard-Davis 2000
66	Ribchester	5.9	Hone.	Maintenance	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
67	Birdoswald	7.80	Hone.	Maintenance	Western Praetentura	Phase 1	Wilmott, Cool & Evans 2009
68	Birdoswald	7.81	Hone.	Maintenance	Spur	Roman	Wilmott, Cool & Evans 2009
69	Birdoswald	7.82	Sharpening stone(?).	Maintenance	Time Team excavation	Roman	Wilmott, Cool & Evans 2009
70	Birdoswald	7.83	Whetstone.	Maintenance		Roman	Wilmott, Cool & Evans 2009
71	Birdoswald	7.104	Crucible rim fragment.	Fine metalworking	Western Praetentura	Phase 8	Wilmott, Cool & Evans 2009
72	Birdoswald (1997)	12.186	Whetstone.	Maintenance	Porta principalis sinistra.	Period 3	Wilmott 1997b
73	Carlisle (Castle Street)	2.177-86	Copper alloy offcuts.	Scrap		Period 4	Padley 1991
74	Carlisle (Castle Street)	2.367	Punch.	Metalworking			Padley 1991
75	Carlisle (Castle Street)	2.368	Punch.	Metalworking			Padley 1991
76	Carlisle (Castle Street)	2.369	Punch.	Metalworking		Period 8A	Padley 1991
77	Carlisle (Castle Street)	2.370	Punch.	Metalworking		Period 4C	Padley 1991
78	Carlisle (Castle Street)	2.611	Whetstone.	Maintenance			Padley 1991
79	Carlisle (Castle Street)	2.612	Whetstone.	Maintenance			Padley 1991
80	Carlisle (Castle Street)	2.613	Whetstone.	Maintenance		Period 6A	Padley 1991
81	Carlisle (Castle Street)	2.614	Whetstone.	Maintenance		Period 5	Padley 1991
82	Carlisle (Castle Street)	2.615	Whetstone.	Maintenance		Period 4A	Padley 1991

Appendix III.3: Material Culture - Metalworking

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
83	Carlisle (Millennium Project)	6.126	Cold chisel.	Metalworking	Cobble foundation (285).	Period 6A	C. Howard-Davis in Bates et al 2009
84	Carlisle (MP)	6.1392	Punch(?).	Metalworking	Barrack (2301).	Period 6A	C. Howard-Davis in Bates et al 2009
85	Carlisle (MP)	6.2951	Punch (wooden handle).	Metalworking	Drain, road (7477).	Period 4B	C. Howard-Davis in Bates et al 2009
86	Carlisle (MP)	6.2964	Punch(?).	Metalworking	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
87	Carlisle (MP)	6.2978	Cold chisel.	Metalworking	Demolition deposit, workshop (7200).	Period 3D	C. Howard-Davis in Bates et al 2009
88	Carlisle (MP)	6.2992	Cold chisel.	Metalworking	Workshop (7200).	Period 3C	C. Howard-Davis in Bates et al 2009

Appendix III.4: Material Culture - Leatherworking

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
III.4. Leatherworking.							
1	Vindolanda	887	Awl.	Decoration		IV/V	Blake 1999
2	Vindolanda	3640	Awl.	Decoration		II/III	Blake 1999
3	Vindolanda	3986	Awl.	Decoration		II	Blake 1999
4	Vindolanda	4323	Awl.	Decoration		IV	Blake 1999
5	Vindolanda	5031	Awl.	Decoration		V	Blake 1999
6	Vindolanda	5165	Awl.	Decoration		IV	Blake 1999
7	Vindolanda	6078	Awl.	Decoration		IV	Blake 1999
8	Vindolanda	5825	Punch.	Decoration		III	Blake 1999
9	Vindolanda	8345	Bone handled awl.	Decoration	Period I fort ditch.	Period I	Blake 2003a
10	Vindolanda	8370	Shears (wooden bung in U).	Processing	Beneath floor of Period V cobbler's shop.	Period IV	Blake 2003a
11	Vindolanda	8347	Cross-pane hammer (complete). Suitable for hammering hobnails.	Shoemaking	Cobbler's shop floor surface.	Period V/VIA	Blake 2003a
12	Housesteads	346	Awl?	Decoration	Barrack block XIII		Rushworth 2009
13	South Shields	2.256-9	Awls (copper alloy).	Decoration			Allason-Jones & Miket 1984
14	South Shields	5.16	Awl (iron).	Decoration			Allason-Jones & Miket 1984
15	Ribchester	1.227	Leatherworking pin/needle.	Processing	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
16	Ribchester	1.228	Awl(?).	Decoration	Punic ditch upcast.	Phase 3	Buxton & Howard-Davis 2000
17	Ribchester	2.81	Leatherworking knife(?).	Processing	Levelling deposit (SW).	Phase 3	Buxton & Howard-Davis 2000
18	Ribchester	2.132	Leatherworking awl.	Decoration	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000

Appendix III.4: Material Culture - Leatherworking

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
19	Ribchester	2.133	Leatherworking awl.	Decoration	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
20	Ribchester	2.134	Leatherworking awl.	Decoration	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
21	Ribchester	2.135	Leatherworking awl.	Decoration	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
22	Ribchester	2.136	Leatherworking awl.	Decoration	Spoil.		Buxton & Howard-Davis 2000
23	Ribchester	2.137	Leatherworking needle.	Processing	Spoil.		Buxton & Howard-Davis 2000
24	Ribchester	6.201-240	Leather offcuts/waste.	Waste clearence			Buxton & Howard-Davis 2000
25	Carlisle (Castle Street)	2.360	Leatherworker's awl.	Decoration		Period 11	Padley 1991
26	Carlisle (CC)	2.365	Awl.	Decoration		Period 6A	Padley 1991
27	Carlisle (CC)	3.827	Half-moon scraper.	Processing		Period 6A	Padley and Winterbottom 1991
28	Carlisle (Millennium Project)	6.3272	Awl(?).	Decoration	Demolition deposit, praetorium (7392).	Period 3A	C. Howard-Davis in Bates et al 2009
29	Carlisle (MP)	10.68	Leather tool-bag (awls/files?).	Processing	Pit fill, workshop (4657).	Period 3C	Winterbottom and Mould in Bates et al 1999

Appendix III.5: Material Culture – Textile working

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
III.5. Textile working.							
1	Elginhaugh	10.5.2.162	Sewing needle	Textile working	Post-Roman ploughsoil.	A.D. 79-87	Hanson 2007c.
2	South Shields	4.54-4.45	Linen smoothers	Textile working			Allason-Jones & Miket 1984
3	South Shields	2.260-88	Bone needles	Textile working			Allason-Jones & Miket 1984
4	South Shields	3.493-504	Copper alloy needles.	Textile working			Allason-Jones & Miket 1984
5	South Shields	2.289-622	Bone pins.	Textile working/clothing			Allason-Jones & Miket 1984
6	South Shields	2.433-46	Bone pins.	Textile working/clothing			Allason-Jones & Miket 1984
7	South Shields	3.505-61	Copper alloy pins.	Textile working/clothing			Allason-Jones & Miket 1984
8	South Shields	4.1-4.2	Glass pins.	Textile working/clothing			Allason-Jones & Miket 1984
9	South Shields	7.107	Spindlewhorl.	Spinning			Allason-Jones & Miket 1984
10	South Shields	7.171-90	Spindlewhorls.	Spinning			Allason-Jones & Miket 1984
11	South Shields	2.23	Bone weaving comb.	Weaving			Allason-Jones & Miket 1984
12	South Shields	2.24	Bone bobbin.	Weaving			Allason-Jones & Miket 1984
13	South Shields	2.25	Bone fish (macramé work)	Weaving			Allason-Jones & Miket 1984
14	South Shields	2.49	Bone weaving heddle.	Weaving			Allason-Jones & Miket 1984
15	Hardknott	62	Spindlewhorl.	Spinning			Bidwell et al 1999
16	Hardknott	65	Loomweight.	Weaving			Bidwell et al 1999
17	Ribchester	1.229	Large needle (Romano-British).	Textile working	Spoil.		Buxton & Howard-Davis 2000

Appendix III.5: Material Culture – Textile working

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
18	Ribchester	3.39-47	Spindle whorls.	Spinning			Buxton & Howard-Davis 2000
19	Ribchester	5.6	Spindle whorl (lead).	Spinning	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
20	Ribchester	5.12	Spindle whorl (pottery).	Spinning	Waste/quarry pit.	5:2	Buxton & Howard-Davis 2000
21	Ribchester	7.63	Wooden toy sword/weaving tool.	Weaving	Organic layer (N).	Phase 1:2	Buxton & Howard-Davis 2000
22	Ribchester	7.64	Wooden toy sword/weaving tool.	Weaving	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
23	Ribchester	7.65	Bobbin/pulley.	Weaving	Ditch fill.	Phase 1:2	Buxton & Howard-Davis 2000
24	Wallsend	83	Spindlewhorl.	Spinning	Barrack IX room 4	Period 3	A.T. Croom in Hodgson 2003
25	Wallsend	85.1	Bobbin.	Weaving	Barrack XII room 10	Period 2/3	A.T. Croom in Hodgson 2003
26	Birdoswald	7.27	Spindle whorl(?).	Spinning	Western Praetentura	Phase 8	Wilmott, Cool & Evans 2009
27	Birdoswals	7.28	Spindle whorl(?).	Spinning	Spur	Phase B5	Wilmott, Cool & Evans 2009
28	Birdoswald (1997)	12.182	Curry comb.	Spinning	Primary rampart.	Period 2	Wilmott 1997b
29	Carlisle (Castle Street)	2.162	Needle.	Textile working		Period 8B	Padley 1991
30	Carlisle (CC)	2.163	Needle.	Textile working		Period 5	Padley 1991
31	Carlisle (CC)	2.164	Needle(/stylus?).	Textile working		Period 7-8	Padley 1991
32	Carlisle (CC)	2.165	Thimble.	Textile working			Padley 1991
33	Carlisle (CC)	2.477	Needle (iron).	Textile working		Period 4C	Padley 1991
34	Carlisle (CC)	2.478	Needle (iron).	Textile working		Period 4C	Padley 1991
35	Carlisle (CC)	2.479	Needle (iron).	Textile working		Period 8A	Padley 1991
36	Carlisle (CC)	2.480	Needle (Crummy Type 3).	Textile working		Period 6A	Padley 1991

Appendix III.5: Material Culture – Textile working

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
37	Carlisle (CC)	2.481	Needle (Crummy Type 3).	Textile working		Period 4B	Padley 1991
38	Carlisle (CC)	2.482	Needle (iron).	Textile working		Period 4C	Padley 1991
39	Carlisle (CC)	2.483	Needle (iron).	Textile working		Period 4B	Padley 1991
40	Carlisle (CC)	2.484	Needle (Crummy Type 2a).	Textile working		Period 6A	Padley 1991
41	Carlisle (CC)	2.485	Needle (Crummy Type 2a).	Textile working		Period 5	Padley 1991
42	Carlisle (CC)	3.760	Spindle fragment (bone).	Spinning		Period 9	Padley and Winterbottom 1991
43	Carlisle (CC)	3.761	Bobbin (bone).	Weaving		Period 8A	Padley and Winterbottom 1991
44	Carlisle (CC)	3.762	Bobbin (bone).	Weaving		Period 8B	Padley and Winterbottom 1991
45	Carlisle (CC)	3.763	Bobbin(?).	Weaving		Period 8B	Padley and Winterbottom 1991
46	Carlisle (CC)	3.764	Weaving tablet (bone, triangle).	Weaving		Period 8A	Padley and Winterbottom 1991
47	Carlisle (CC)	3.765	Needle (bone, Crummy Type 1c).	Textile working		Period 8A	Padley and Winterbottom 1991
48	Carlisle (CC)	3.766	Needle (bone, Crummy Type 3).	Textile working		Period 9	Padley and Winterbottom 1991
49	Carlisle (CC)	3.767	Needle (antler).	Textile working			Padley and Winterbottom 1991
50	Carlisle (CC)	3.768	Needle (bone).	Textile working		Period 9	Padley and Winterbottom 1991
51	Carlisle (CC)	3.769	Needle (bone).	Textile working		Period 9	Padley and Winterbottom 1991
52	Carlisle (CC)	3.770	Needle (bone).	Textile working		Period 8B	Padley and Winterbottom 1991
53	Carlisle (CC)	3.771	Needle (bone).	Textile working		Period 8B	Padley and Winterbottom 1991
54	Carlisle (CC)	3.772	Needle (bone).	Textile working		Period 8A	Padley and Winterbottom 1991
55	Carlisle (CC)	3.830	Spindle whorl (wood).	Spinning		Period 4A	Padley and Winterbottom 1991

Appendix III.5: Material Culture – Textile working

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
56	Carlisle (CC)	3.831	Bobbin.	Weaving		Period 4C	Padley and Winterbottom 1991
57	Carlisle (Millennium Project)	6.316	Shears (fragmentary).	Spinning	Tenement (1235).	Periof 8iv	C. Howard-Davis in Bates et al 2009
58	Carlisle (MP)	9.35	Spindle whorl (apple/pear).	Spinning	Workshop (7396).	Period 4A	C. Howard-Davis in Bates et al 2009
59	Carlisle (MP)	9.36	Spindle whorl(?). Ash.	Spinning	Workshop (7396).	Period 4A	C. Howard-Davis in Bates et al 2009
60	Carlisle (MP)	5.924	Weaving tablet (copper alloy).	Weaving	Principia (7400).	Period 3A	C. Howard-Davis in Bates et al 2009
61	Carlisle (MP)	10.25	T-shaped weaving comb (bone).	Weaving	Workshop (4658).	Period 3A	C. Howard-Davis in Bates et al 2009
62	Carlisle (MP)	10.26	Weaving tablet (bone).	Weaving	Workshop (4657).	Period 3B	C. Howard-Davis in Bates et al 2009
63	Carlisle (MP)	10.62	Weaving tablet, antler. RB dec?	Weaving	Workshop (5689).	Period 4A	C. Howard-Davis in Bates et al 2009

Appendix III.6: Material Culture – Hygiene and medical tools

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
III.6. Hygiene and medical tools							
1	Vindolanda	5218	Razor blade(?)	Hygiene		V	Blake 1999
2	Vindolanda	8801	Knife/razor (Manning type 6b).	Hygiene	Between two Period III structures.	III	Blake 2003a
3	Vindolanda	W2002-41A	Round boxwood container.	Medicine(?)	Fort ditch terminus.	I	Birley 2003b
4	Vindolanda	W2001-14	Wooden comb.	Hygiene	Laminated floor below room 2, schola.	III	Birley 2003b
5	Vindolanda	W2001-16	Wooden comb.	Hygiene	Laminated floor below room 2, schola.	III	Birley 2003b
6	Elginhaugh	10.5.2.63	Razor handle.	Hygiene	Demolition layer above via singularis in SW corner of fort.	A.D. 79-87	Hanson 2007c
7	Elginhaugh	10.5.2.62	Box lid/mirror.	Hygiene	Post-Roman ploughsoil in annexe.	A.D. 79-87	Hanson 2007c
8	Elginhaugh	10.7.2.31	Flask/Unguent bottle.	Medicine	Fill of construction trench 239, annexe building D/E.	A.D. 79-87	Hanson 2007c
9	Elginhaugh	10.7.2.32	Flask/Unguent bottle.	Medicine	Fill of demolition pit 431, Barrack 1.	A.D. 79-87	Hanson 2007c
10	Elginhaugh	10.7.2.33	Flask/Unguent bottle.	Medicine	Ploughsoil.	A.D. 79-87	Hanson 2007c
11	Elginhaugh	10.7.2.34	Flask/Unguent bottle.	Medicine	General occupation level, annexe tr. 3.	A.D. 79-87	Hanson 2007c
12	Elginhaugh	10.7.2.52	Hexagonal bottle.	Medicine(?)	Fill of drainage gully 758, Barrack 3	A.D. 79-87	Hanson 2007c
13	Elginhaugh	10.7.2.53	Square/prismatic bottle.	Medicine(?)	Fill of pit 707, Barrack 4.	A.D. 79-87	Hanson 2007c
14	Elginhaugh	10.7.2.54	Square/prismatic bottle.	Medicine(?)	Upper demolition fills of pit 1202, annexe trench 7.	A.D. 79-87	Hanson 2007c

Appendix III.6: Material Culture – Hygiene and medical tools

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
15	Elginhaugh	10.7.2.55	Square/prismatic bottle.	Medicine(?)	Post-Roman ploughsoil, SW quarter of fort.	A.D. 79-87	Hanson 2007c
16	Elginhaugh	10.7.2.56	Square/prismatic bottle.	Medicine(?)	Main upper fill of third ditch 918, E side of fort.	A.D. 79-87	Hanson 2007c
17	Elginhaugh	10.7.2.57	Square/prismatic bottle.	Medicine(?)	Disturbed rake out from ovens W of SG.	A.D. 79-87	Hanson 2007c
18	Elginhaugh	10.7.2.58	Square/prismatic bottle.	Medicine(?)	Plough-disturbed demolition layer across fabrica.	A.D. 79-87	Hanson 2007c
19	Elginhaugh	10.7.2.59	Square/prismatic bottle.	Medicine(?)	Post-Roman ploughsoil in NE corner of fort.	A.D. 79-87	Hanson 2007c
20	Housesteads	70	Tweezers	Hygiene	North rampart.		Rushworth 2009b
21	Housesteads	71	Toilet instrument(?)	Hygiene	Barrack XIII		Rushworth 2009b
22	Housesteads	80	Toilet instrument(?)	Hygiene	Barrack XIII		Rushworth 2009b
24	South Shields	2.39-2.46	Combs.	Hygiene			Allason-Jones & Miket 1984
25	South Shields	2.47-2.48	Comb-strengtheners.	Hygiene			Allason-Jones & Miket 1984
26	South Shields	3.729	Razor.	Hygiene			Allason-Jones & Miket 1984
27	South Shields	3.406-3.407	Copper alloy mirror fragments.	Hygiene			Allason-Jones & Miket 1984
28	South Shields	3.429	Copper alloy mirror handle.	Hygiene			Allason-Jones & Miket 1984
29	South Shields	3.346-3.447	Tweezers.	Hygiene			Allason-Jones & Miket 1984
30	South Shields	3.448-3.465	Probes and other tools.	Medicine/hygiene			Allason-Jones & Miket 1984
31	Ribchester	1.27	Mirror.	Hygiene	Spoil.		Buxton & Howard-Davis 2000
32	Ribchester	1.28	Tweezers.	Hygiene/medical	Spoil.		Buxton & Howard-Davis 2000

Appendix III.6: Material Culture – Hygiene and medical tools

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
33	Ribchester	1.32	Toilet set (chatelaine?)	Hygiene/medical	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
34	Ribchester	1.29	Olivary probe.	Hygiene/medical	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
35	Ribchester	1.30	Olivary probe.	Hygiene/medical	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
36	Ribchester	1.31	Probe/scoop.	Hygiene/medical	Spoil.		Buxton & Howard-Davis 2000
37	Ribchester	4.77-85	Flask/unguent bottles.	Medical		Phase 3-5:2	Buxton & Howard-Davis 2000
38	Ribchester	4.86-135	Cylindrical bottle fragments.	Medical(?)			Buxton & Howard-Davis 2000
39	Ribchester	4.136-140	Hexagonal bottle fragments.	Medical(?)			Buxton & Howard-Davis 2000
40	Ribchester	4.141-156	Square bottle fragments.	Medical(?)			Buxton & Howard-Davis 2000
41	Ribchester	4.157-194	Prismatic bottle fragments.	Medical(?)			Buxton & Howard-Davis 2000
42	Wallsend	34	*Ligula* (medical or cosmetic function).	Medical/hygiene	*Via quintana.*	Period 3	A.T. Croom in Hodgson 2003
43	Wallsend	7	Blown blue/green glass.	Medical(?)	Hospital room 3.	Period 3A	S.Worrel in Hodgson 2003
44	Wallsend	8	Blown blue/green glass, body/base.	Medical(?)	Porta Quintana (ploughsoil).		S.Worrel in Hodgson 2003
45	Wallsend	10	Blown blue/green bottle rim/neck frag.	Medical(?)	Barrack XII room 5.	Period 4	S.Worrel in Hodgson 2003
46	Wallsend	11	Blown blue/green bottle neck fragment.	Medical(?)	Hospital.		S.Worrel in Hodgson 2003
47	Wallsend	12	Blown blue/green bottle shoulder frag.	Medical(?)	Barrack XII room 5.	Period 4	S.Worrel in Hodgson 2003
48	Wallsend	13	Blown blue/green hexagonal bottle.	Medical(?)	Barrack IX room 10.	Period 3	S.Worrel in Hodgson 2003
49	Wallsend	14	Blown blue/green prismatic bottle.	Medical(?)	Hospital latrine drain.	Period 3	S.Worrel in Hodgson 2003

Appendix III.6: Material Culture – Hygiene and medical tools

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
50	Wallsend	2.657	Blown glass, blue/green unguent bottle base.	Medical/hygiene(?)		Period 9	Padley 1991
51	Wallsend	2.658	Blown glass, blue/green unguent bottle base.	Medical/hygiene(?)		Period 9	Padley 1991
52	Wallsend	2.659	Blown glass, blue/green unguent bottle base.	Medical/hygiene(?)		Period 9	Padley 1991
53	Wallsend	2.46	Toilet spoon.	Hygiene/medical		Period 11	Padley 1991
54	Wallsend	2.48	Toilet spoon.	Hygiene/medical		Period 7-8	Padley 1991
55	Wallsend	2.49	Toilet spoon.	Hygiene/medical		Period 7-8	Padley 1991
56	Wallsend	2.50	Toilet spoon.	Hygiene/medical		Period 4C	Padley 1991
57	Wallsend	2.51	Toilet spoon.	Hygiene/medical		Period 4B	Padley 1991
58	Wallsend	2.52	Toilet spoon.	Hygiene/medical		Period 4C	Padley 1991
59	Wallsend	2.53	Toilet spoon.	Hygiene/medical		Period 8A	Padley 1991
60	Wallsend	2.55	Toilet spoon.	Hygiene/medical		Period 4A	Padley 1991
61	Wallsend	2.56	Scoop-probe.	Hygiene/medical		Period 8B	Padley 1991
62	Wallsend	2.332	Blunt hook/ligula.	Hygiene/medical		Period 4C	Padley 1991
63	Wallsend	2.637	Blown glass, colourless bottle(?) fragment.	Medical(?)		Period 9	Padley 1991
64	Wallsend	2.638	Blown glass, colourless bottle handle.	Medical(?)		Period 9	Padley 1991
65	Wallsend	2.639	Blown glass, colourless bottle neck, rim.	Medical(?)		Period 13-15.	Padley 1991
66	Wallsend	2.655	Blown glass, blue/green bath flask handle.	Medical(?)			Padley 1991
67	Wallsend	2.656	Blown glass, blue/green bath flask rim.	Medical(?)		Period 11	Padley 1991
68	Wallsend	2.663	Blown glass, blue-green bottle rim.	Medical(?)		Period 3A/B	Padley 1991

Appendix III.6: Material Culture – Hygiene and medical tools

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
69	Wallsend	2.664	Blown glass, blue/green bottle rim.	Medical(?)		Period 11-12	Padley 1991
70	Wallsend	2.665	Blown glass, blue/green bottle rim.	Medical(?)		Period 10	Padley 1991
71	Wallsend	2.666	Blown glass, blue/green bottle neck.	Medical(?)		Period 9	Padley 1991
72	Wallsend	2.668	Blown glass, blue/green bottle handle.	Medical(?)		Period 11-15	Padley 1991
73	Wallsend	2.669	Blown glass, blue/green bottle base/body.	Medical(?)		Period 5	Padley 1991
74	Wallsend	2.670	Blown glass, blue/green bottle base/body.	Medical(?)			Padley 1991
75	Wallsend	2.671	Blown glass, blue/green bottle base.	Medical(?)		Period 4C	Padley 1991
76	Wallsend	2.672	Blown glass, blue/green bottle base/body.	Medical(?)		Period 4C	Padley 1991
77	Wallsend	2.673	Blown glass, blue/green bottle base/body.	Medical(?)		Period 9	Padley 1991
78	Wallsend	2.674	Blown glass, blue/green bottle base.	Medical(?)		Period 13-15.	Padley 1991
79	Wallsend	2.675	Blown glass, blue/green bottle base/body.	Medical(?)			Padley 1991
80	Wallsend	2.676	Blown glass, dark green bottle base/body.	Medical(?)		Period 10-11	Padley 1991

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No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
81	Wallsend	2.677	Blown glass, blue/green bottle Base.	Medical(?)		Period 8B	Padley 1991
82	Wallsend	2.678	Blown glass, blue/green bottle base/body.	Medical(?)		Period 10	Padley 1991
83	Wallsend	2.679	Blown glass, blue/green bottle base.	Medical(?)		Period 9	Padley 1991
84	Wallsend	2.681	Blown glass, blue/green bottle base/body.	Medical(?)		Period 4C	Padley 1991
85	Wallsend	2.682	Blown glass, blue/green bottle base/body.	Medical(?)		Period 4C	Padley 1991
86	Wallsend	2.684	Blown glass, blue/green bottle fragment.	Medical(?)		Period 9	Padley 1991
87	Carlisle (Millennium Project)	3.778	Double-sided comb (wood).	Hygiene		Period 6-7	Padley and Winterbottom 1991
88	Carlisle (MP)	3.779	Double-sided comb (wood).	Hygiene		Period 6A	Padley and Winterbottom 1991
89	Carlisle (MP)	3.780	Double-sided comb (wood).	Hygiene		Period 4A	Padley and Winterbottom 1991
90	Carlisle (MP)	3.781	Wooden cylindrical box (pyxis?)	Medical(?)			Padley and Winterbottom 1991
91	Carlisle (MP)	3.782	Wooden cylindrical box (pyxis?)	Medical(?)			Padley and Winterbottom 1991
92	Carlisle (MP)		Cylindrical storage bottle (6 fragments).	Medical(?)	Workshops (4006, 4656), external deposits.	Period 3B	C. Howard-Davis in Bates et al 2009
93	Carlisle (MP)		Cylindrical storage bottle (1 fragment).	Medical(?)	Road (7476).	Period 3C	C. Howard-Davis in Bates et al 2009
94	Carlisle (MP)		Cylindrical storage bottle (1 fragment).	Medical(?)	Barrack (3772).	Period 3D	C. Howard-Davis in Bates et al 2009

Appendix III.6: Material Culture – Hygiene and medical tools

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
95	Carlisle (MP)		Cylindrical storage bottle (2 fragments).	Medical(?)	Workshop (4657).	Period 3E	C. Howard-Davis in Bates et al 2009
96	Carlisle (MP)		Cylindrical storage bottle (5 fragments).	Medical(?)	Barracks (2059, 4655), principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
97	Carlisle (MP)		Cylindrical storage bottle (1 fragment).	Medical(?)	Posthole (6008).	Period 5A	C. Howard-Davis in Bates et al 2009
98	Carlisle (MP)		Hexagonal storage bottle (3 fragments).	Medical(?)	Barracks (3376, 4655).	Period 4A	C. Howard-Davis in Bates et al 2009
99	Carlisle (MP)		Square storage bottle (12 fragments).	Medical(?)	Rampart building (1194), barracks (4652, 4653), workshop (4654, 4658, 7393), praetorium (7392), roads (7476, 7478).	Period 3A	C. Howard-Davis in Bates et al 2009
100	Carlisle (MP)		Square storage bottle (6 fragments).	Medical(?)	Workshops (2061, 4006, 4656), principia (7391), road (4661).	Period 3B	C. Howard-Davis in Bates et al 2009
101	Carlisle (MP)		Square storage bottle (3 fragments).	Medical(?)	Workshops (4657, 7200, 4657).	Period 3C	C. Howard-Davis in Bates et al 2009
102	Carlisle (MP)		Square storage bottle (1 fragment).	Medical(?)	Barrack (3772).	Period 3D	C. Howard-Davis in Bates et al 2009
103	Carlisle (MP)		Square storage bottle (1 fragment).	Medical(?)	Posthole (3765).	Period 3E	C. Howard-Davis in Bates et al 2009
104	Carlisle (MP)		Square storage bottle (29 fragments).	Medical(?)	Barracks (2079, 3376, 4655), building (4664), principia (5688), workshops (5689, 7396).	Period 4A	C. Howard-Davis in Bates et al 2009
105			Square storage bottle (1 fragment).	Medical(?)	Road (7645).	Period 4A/B	C. Howard-Davis in Bates et al 2009

Appendix III.6: Material Culture – Hygiene and medical tools

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
106	Carlisle (MP)		Square storage bottle (35 fragments).	Medical(?)	Building (546), workshops (2765, 4660, 5689), roads (4659, 7217, 7477, 7479),	Period 4B	C. Howard-Davis in Bates et al 2009
107	Carlisle (MP)		Square storage bottle (25 fragments).	Medical(?)	Workshops (4660, 5689), principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
108	Carlisle (MP)		Square storage bottle (3 fragments).	Medical(?)	Building (4663), external deposits.	Period 4D	C. Howard-Davis in Bates et al 2009
109	Carlisle (MP)		Square storage bottle (10 frags).	Medical(?)	External deposits.	Period 5A	C. Howard-Davis in Bates et al 2009
110	Carlisle (MP)		Square storage bottle (8 fragments).	Medical(?)	Road (4662).	Period 5B	C. Howard-Davis in Bates et al 2009
111	Carlisle (MP)		Square storage bottle (3 fragments).	Medical(?)	External deposits, road (4662).	Period 5C	C. Howard-Davis in Bates et al 2009
112	Carlisle (MP)		Square storage bottle (3 fragments).	Medical(?)	Road (4662).	Period 5D	C. Howard-Davis in Bates et al 2009
113	Carlisle (MP)	5.113	Ligula?	Medical/hygiene(?)	Road (4662).	Period 5B	C. Howard-Davis in Bates et al 2009
114	Carlisle (MP)	5.116	Ligula?	Medical/hygiene(?)	Road (4662).	Period 5B	C. Howard-Davis in Bates et al 2009
115	Carlisle (MP)	5.535	Ligula?	Medical/hygiene(?)	Posthole (6082).	Period 5C	C. Howard-Davis in Bates et al 2009
116	Carlisle (MP)	5.537	Olivary probe.	Medical/hygiene	Pipe trench (5885).	Period 5C	C. Howard-Davis in Bates et al 2009
117	Carlisle (MP)	5.596	Ligula/probe.	Medical/hygiene	Road (7217).	Period 4B	C. Howard-Davis in Bates et al 2009
118	Carlisle (MP)	5.148	Silvered mirror frag.	Hygiene	External deposit.	Period 5A	C. Howard-Davis in Bates et al 2009
119	Carlisle (MP)	5.204	Chatelaine-style nail cleaner(?).	Hygiene	Hearth fill, workshop (4660).	Period 4B	C. Howard-Davis in Bates et al 2009
120	Carlisle (MP)	9.3	Single sided comb.	Hygiene	External deposit.	Period 3B	C. Howard-Davis in Bates et al 2009
121	Carlisle (MP)	9.4	Double-sided comb.	Hygiene	Pit fill, barrack (1222).	Period 3A	C. Howard-Davis in Bates et al 2009

Appendix III.6: Material Culture – Hygiene and medical tools

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
122	Carlisle (MP)	9.8	Double-sided comb.	Hygiene	Construction trench, barrack (3772).	Period 3B	C. Howard-Davis in Bates et al 2009
123	Carlisle (MP)	9.31	Double sided comb, boxwood.	Hygiene	Roadside gully, road (7217).	Period 4B	C. Howard-Davis in Bates et al 2009
124	Carlisle (MP)	9.41	Double sided comb. Louse in teeth.	Hygiene	Construction trench, building (7394).	Period 3B	C. Howard-Davis in Bates et al 2009

Appendix III.7: Material Culture – Food and administration

III.7. Food, farming, and administration.							
No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
1	Vindolanda	4317	Hoe.	Farming		V	Blake 1999
2	Vindolanda	2732	Spade.	Farming(?)		IV	Blake 1999
3	Vindolanda	4442	Scythe blade.	Farming		IV	Blake 1999
4	Vindolanda	3738	Reaping hook.	Farming/maintenance		III	Blake 1999
5	Vindolanda	4413	Reaping hook.	Farming/maintenance		III	Blake 1999
6	Vindolanda	3606	Dolabra.	Farming/militaria		II	Blake 1999
7	Vindolanda	4482	Branding iron.	Livestock		III	Blake 1999
8	Vindolanda	8461	Bone scraper (antler)	Preparation	Period I fort ditch.	Period I	Blake 2003a
9	Vindolanda	8839	Cleaver.	Preparation	Room 2 of schola, in animal remains.	Period II/III	Blake 2003a
10	Vindolanda	W2001-29	Large scoop/ladle in shape of dagger.	Preparation	Foundation of VIB workshop.	Period VIA	Birley 2003b
11	Vindolanda	W2001-31	Large decorative wooden flagon bung.	Tableware	Laminated floor below room 2, schola.	Period III	Birley 2003b
12	Vindolanda	W2001-48	Bung/handle.	Tableware	Fort ditch.	Period I	Birley 2003b
13	Elginhaugh	10.5.2.142.	Spade-shoe.	Farming	General demolition layer.	A.D. 79-87	Hanson 2007c.
14	Elginhaugh	10.5.2.171	Cleaver(?)	Preparation	Upper demolition fill of well in principia.	A.D. 79-87	Hanson 2007c
15	Elginhaugh	10.5.2.64	Shallow pan.	Preparation	Demolition layer across Barrack 11.	A.D. 79-87	Hanson 2007c
16	Elginhaugh	10.5.2.64	Shallow pan.	Preparation	Demolition layer across Barrack 11.	A.D. 79-87	Hanson 2007c
17	Elginhaugh	10.15.5.1	Native bun quern, upper stone.	Preparation	Rubble layer of via sagularis by east gate.	A.D. 79-87	Hanson 2007c
18	Elginhaugh	10.15.5.2	Native bun quern, lower stone.	Preparation	Upper fill of well, northern end of Barrack 5	A.D. 79-87	Hanson 2007c
19	Elginhaugh	10.15.5.3	Native disc-shaped quern, upper stone.	Preparation	Rubble layer of via sagularis by east gate.	A.D. 79-87	Hanson 2007c
20	Elginhaugh	10.15.5.4	Native disc-shaped quern, upper stone.	Preparation	Fill of demolition pit, Barrack 5.	A.D. 79-87	Hanson 2007c
21	Elginhaugh	10.15.5.5	Native disc-shaped quern, upper stone.	Preparation	Topsoil.	A.D. 79-87	Hanson 2007c

Appendix III.7: Material Culture – Food and administration

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
22	Elginhaugh	10.15.5.6	Native disc-shaped quern, upper stone.	Preparation	Demolition pit fill, praetorium.	A.D. 79-87	Hanson 2007c
23	Elginhaugh	10.15.5.7	Native disc-shaped quern, upper stone.	Preparation	Topsoil.	A.D. 79-87	Hanson 2007c
24	Elginhaugh	10.15.5.8-9	Probably La Tene quern.	Preparation	Clearance layer over ovens, SW corner of fort.	A.D. 79-87	Hanson 2007c
25	Elginhaugh	10.15.5.10	Roman imported lava quern, lower stone.	Preparation	Secondary metalling in the SE corner of the fort.	A.D. 79-87	Hanson 2007c
26	Elginhaugh	10.15.5.11	Roman sandstone quern, upper storn, very worn.	Preparation	Topsoil.	A.D. 79-87	Hanson 2007c
27	Elginhaugh	10.15.5.12	Roman sandstone quern, lower stone.	Preparation	Topsoil.	A.D. 79-87	Hanson 2007c
28	Elginhaugh	10.15.5.13	Roman lava quern, fragments of lower stone.	Preparation	Secondary cobbling at northern end of Barrack 5.	A.D. 79-87	Hanson 2007c
29	Elginhaugh	10.15.5.14	Roman lava quern, upper stone fragments.	Preparation	Fill of ditch slighting west gate.	A.D. 79-87	Hanson 2007c
30	Elginhaugh	10.15.5.15	Roman lava quern, lower stone fragments.	Preparation	Demolition pit fill, between praetorium and Barrack 2.	A.D. 79-87	Hanson 2007c
31	Elginhaugh	10.15.5.16	Roman lava quern, upper stone fragments.	Preparation	Sub-topsoil.	A.D. 79-87	Hanson 2007c
32	Elginhaugh	10.15.5.17	Roman lava quern, quarter of upper stone.	Preparation	Secondary metalling in the SE corner of the fort.	A.D. 79-87	Hanson 2007c
33	Elginhaugh	10.15.5.18	Roman lava quern, lower stone fragment.	Preparation	Secondary cobbling at northern end of Barrack 5.	A.D. 79-87	Hanson 2007c
34	Elginhaugh	10.15.5.19	Lava quern fragments.	Preparation	Secondary metalling in the SE corner of the fort.	A.D. 79-87	Hanson 2007c
35	Elginhaugh	10.5.2.65	Vessel.	Serving	Occupation level; annexe trench 3.	A.D. 79-87	Hanson 2007c

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No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
36	Elginhaugh	10.5.2.66	Vessel rim.	Serving	Topsoil in annexe trench 2.	A.D. 79-87	Hanson 2007c
37	Elginhaugh	10.5.2.67	Vessel rim.	Serving	Topsoil.	A.D. 79-87	Hanson 2007c
38	Elginhaugh	10.5.2.68	Vessel handle.	Serving	Surface of via sagularis by SG.	A.D. 79-87	Hanson 2007c
39	Elginhaugh	10.5.2.69	Vessel handle.	Serving	Demolition layer above via singularis in SW corner of fort.	A.D. 79-87	Hanson 2007c
40	Elginhaugh	10.5.2.70	Saucepan handle.	Preparation	Fill of roadside gully, annexe trench 3.	A.D. 79-87	Hanson 2007c
41	Elginhaugh	10.5.2.71	Vessel handle.	Serving	Disturbed rampart material/demolition by E gate.	A.D. 79-87	Hanson 2007c
42	Elginhaugh	10.7.2.1	Pillar-moulded bowl.	Serving	Fill of demolition pit 1378, Barrack 5.	A.D. 79-87	Hanson 2007c
43	Elginhaugh	10.7.2.2	Pillar-moulded bowl.	Serving	Fill of gully 405, annexe trench 3.	A.D. 79-87	Hanson 2007c
44	Elginhaugh	10.7.2.3	Pillar-moulded bowl.	Serving	Disturbed rake out from ovens W of SG.	A.D. 79-87	Hanson 2007c
45	Elginhaugh	10.7.2.4	Pillar-moulded bowl.	Serving	Demolition layer above via sagularis 1756 in SW corner of fort.	A.D. 79-87	Hanson 2007c
46	Elginhaugh	10.7.2.5	Pillar-moulded bowl.	Serving	N/A	A.D. 79-87	Hanson 2007c
47	Elginhaugh	10.7.2.6	Pillar-moulded bowl.	Serving	N/A	A.D. 79-87	Hanson 2007c
48	Elginhaugh	10.7.2.7	Pillar-moulded bowl.	Serving	Disturbed general demolition level across fort	A.D. 79-87	Hanson 2007c
49	Elginhaugh	10.7.2.7a	Pillar-moulded bowl.	Serving	Road surface between Barracks 11 and 12.	A.D. 79-87	Hanson 2007c
50	Elginhaugh	10.7.2.8	Pillar-moulded bowl.	Serving	General occupation level, annexe trench 3.	A.D. 79-87	Hanson 2007c
51	Elginhaugh	10.7.2.9	Cup/beaker.	Serving	Demolition layer above via sagularis 1756 in SW of fort.	A.D. 79-87	Hanson 2007c
52	Elginhaugh	10.7.2.10	Cup/beaker.	Serving	Demolition layer above via sagularis 1756 in SW corner of fort.	A.D. 79-87	Hanson 2007c
53	Elginhaugh	10.7.2.11	Cup/beaker.	Serving	Demolition layer above via sagularis 1756 in SW corner of fort.	A.D. 79-87	Hanson 2007c

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No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
54	Elginhaugh	10.7.2.12	Cup/beaker.	Serving	N/A	A.D. 79-87	Hanson 2007c
55	Elginhaugh	10.7.2.13	Cup/beaker.	Serving	Fill of pit 236, annexe trench 2.	A.D. 79-87	Hanson 2007c
56	Elginhaugh	10.7.2.14	Cup/beaker.	Serving	Secondary metalling in the SE corner of the fort.	A.D. 79-87	Hanson 2007c
57	Elginhaugh	10.7.2.15	Cup/beaker.	Serving	Topsoil.	A.D. 79-87	Hanson 2007c
58	Elginhaugh	10.7.2.16	Cup/beaker.	Serving	Demolition spread admixed with oven rake-out in SW corner of fort.	A.D. 79-87	Hanson 2007c
59	Elginhaugh	10.7.2.17	Cup/beaker.	Serving	Via sagularis in SW corner of fort.	A.D. 79-87	Hanson 2007c
60	Elginhaugh	10.7.2.18	Bowl.	Serving	General occupation level, annexe trench 3.	A.D. 79-87	Hanson 2007c
61	Elginhaugh	10.7.2.19	Bowl.	Serving	Demolition layer above via sagularis 1756 in SW corner of fort.	A.D. 79-87	Hanson 2007c
62	Elginhaugh	10.7.2.20	Bowl.	Serving	Demolition spread, north end of Barrack 12.	A.D. 79-87	Hanson 2007c
63	Elginhaugh	10.7.2.21	Jar.	Serving	Fill of construction trench 239, annexe building D/E.	A.D. 79-87	Hanson 2007c
64	Elginhaugh	10.7.2.22	Jar.	Serving	Demolition layer above via sagularis 1756 in SW corner of fort.	A.D. 79-87	Hanson 2007c
65	Elginhaugh	10.7.2.23	Jar.	Serving	Demolition layer above via sagularis 1756 in SW corner of fort.	A.D. 79-87	Hanson 2007c
66	Elginhaugh	10.7.2.23a	Jar.	Serving	Fill of demolition pit 431, Barrack 1.	A.D. 79-87	Hanson 2007c
67	Elginhaugh	10.7.2.24	Jug.	Serving	General occupation level, annexe trench 3.	A.D. 79-87	Hanson 2007c
68	Elginhaugh	10.7.2.25	Jug.	Serving	Upper fill of pit or slot 2434, Barrack 12.	A.D. 79-87	Hanson 2007c
69	Elginhaugh	10.7.2.26	Jug.	Serving	Demolition spread, north end of Barrack 12.	A.D. 79-87	Hanson 2007c
70	Elginhaugh	10.7.2.27	Jug.	Serving	Annexe.	A.D. 79-87	Hanson 2007c
71	Elginhaugh	10.7.2.28	Jug.	Serving	Topsoil.	A.D. 79-87	Hanson 2007c

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No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
72	Elginhaugh	10.7.2.29	Jug.	Serving	Demolition fill of pit 2478 by ESE interval tower.	A.D. 79-87	Hanson 2007c
73	Elginhaugh	10.7.2.30	Jug.	Serving	Fill of construction trench, annexe Building D/E.	A.D. 79-87	Hanson 2007c
74	Elginhaugh	10.7.2.30a	Jug.	Serving	Fill of construction trench, annexe Building A.	A.D. 79-87	Hanson 2007c
75	Housesteads	328	Spade sheath.	Farming	Barrack block XIII		Rushworth 2009
76	Housesteads	329	Spade sheath/joiner's dog.	Farming(?)	Barrack block XIII		Rushworth 2009
77	Housesteads	59	Steelyard.	Administration	Barrack block XIII	Phase II	Rushworth 2009
78	Housesteads	1	Cast and ground glass (millefiori)	Serving	East rampart.	1st-3rd C	Rushworth 2009b
79	Housesteads	2	Pillar-moulded bowl.	Serving	Drain west end, via principalis.	1st C	Rushworth 2009b
80	Housesteads	3	Mould-blown glass.	Serving	Barrack XIII	1st C	Rushworth 2009b
81	Housesteads	4	Blown glass.	Serving	Barrack XIII	1st C	Rushworth 2009b
82	Housesteads	5->30	Misc. blown glass.	Serving			Rushworth 2009b
83	Housesteads	31	Ground glass.	Serving	Barrack XIII	1st-2nd C	Rushworth 2009b
84	Housesteads	32	Blown glass.	Serving	East rampart.	2nd C	Rushworth 2009b
85	South Shields	2.1	Rake.	Farming			Allason-Jones & Miket 1984
86	South Shields	5.10.	Spade shoe.	Farming			Allason-Jones & Miket 1984
87	South Shields	3.466-79	Steelyards (copper alloy).	Administration			Allason-Jones & Miket 1984
88	South Shields	3.480-4	Balance rods (copper alloy).	Administration			Allason-Jones & Miket 1984
89	South Shields	3.472-9	Weights (copper alloy).	Administration			Allason-Jones & Miket 1984
90	South Shields	8.42-8.48	Weights (lead).	Administration			Allason-Jones & Miket 1984
91	South Shields	12.14	Weights (stone).	Administration			Allason-Jones & Miket 1984
92	South Shields	12.72-12.88	Rotary Quern stones.	Food preparaton			Allason-Jones & Miket 1984

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No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
93	South Shields	2.105	Bone spatula.	Serving			Allason-Jones & Miket 1984
94	South Shields	2.107.2.112	Bone spatula.	Serving			Allason-Jones & Miket 1984
95	South Shields	3.752-3.753	Copper alloy spatula.	Serving			Allason-Jones & Miket 1984
96	South Shields	2.95-2.104	Bone spoon.	Serving			Allason-Jones & Miket 1984
97	South Shields	2.106-2.112	Bone spoon.	Serving			Allason-Jones & Miket 1984
98	South Shields	3.321-3.342	Copper alloy spoon.	Serving			Allason-Jones & Miket 1984
99	South Shields	3.357-3.359	Sacrificial patera.	Serving			Allason-Jones & Miket 1984
100	South Shields	3.361-3.372	Jugs and bowls (copper alloy).	Serving			Allason-Jones & Miket 1984
101	South Shields	3.764	Bowl escutcheon (copper alloy).	Serving			Allason-Jones & Miket 1984
101	South Shields	4.71	Glass pendant, recycled from vessel.	Serving			Allason-Jones & Miket 1984
102	South Shields	7.213	Shale dish.	Serving			Allason-Jones & Miket 1984
103	Hardknott	59	Lava quern.	Preparation			Bidwell et al 1999
104	Hardknott	60	Gritstone quern.	Preparation	East end of principia.		Bidwell et al 1999
105	Hardknott	61	Quern	Preparation	Courtyard of principia.		Bidwell et al 1999
106	Ribchester	1.191	Balance bar(?).	Administration	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
107	Ribchester	5.12-19	Flat millstones.	Preparation		Phase 3-5:12	Buxton & Howard-Davis 2000
108	Ribchester	5.20	Beehive quern.	Preparation	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000

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No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
109	Ribchester	1.211-217	Copper alloy vessel fragments.	Serving			Buxton & Howard-Davis 2000
110	Ribchester	1.218	Vessel repair patch.	Serving	Spoil.		Buxton & Howard-Davis 2000
111	Ribchester	1.219	Vessel lid.	Serving	Small room, building (722)	Phase 4:2	Buxton & Howard-Davis 2000
112	Ribchester	1.220	Vessel handle.	Serving	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
113	Ribchester	1.221	Jug handle.	Serving	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
114	Ribchester	1.222	Tankard handle.	Serving	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
115	Ribchester	7.51	Tankard(?) stave.	Serving	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
116	Ribchester	4.1-7	Pillar moulded glass bowls.	Serving		Phase 1:2-5:2	Buxton & Howard-Davis 2000
117	Ribchester	4.8	Cast glass bowl.	Serving		Phase 5:1	Buxton & Howard-Davis 2000
118	Ribchester	4.9-42	Blown glass vessels.	Serving		Phase 2:1-5:1	Buxton & Howard-Davis 2000
119	Ribchester	4.43-46	Cups/bowls.	Serving		Phase 2:2-5:1	Buxton & Howard-Davis 2000
120	Ribchester	4.47-76	Jars/jugs.	Serving		Phase 2:1-5:2	Buxton & Howard-Davis 2000

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No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
121	Wallsend	35	Copper alloy weight (acorn).	Administration	Barrack IX room 10	Period 1	A.T. Croom in Hodgson 2003
122	Wallsend	93	Beehive quern.	Preparation	Building XX room 3.	Period 4	A.T. Croom in Hodgson 2003
123	Wallsend	94	Lava quern.	Preparation	Between hospital and granaries.	Period 1	A.T. Croom in Hodgson 2003
124	Wallsend	95	Lower stone.	Preparation	Via quintana.	Period 3	A.T. Croom in Hodgson 2003
125	Wallsend	96	Lower stone.	Preparation	Hospital area.		A.T. Croom in Hodgson 2003
126	Wallsend	1	Mould-blown pale blue/green.	Serving	Barrack IX room 6.		S.Worrel in Hodgson 2003
127	Wallsend	2	Blown dark blue glass.	Serving	Hospital room 3.	Period 3A	S.Worrel in Hodgson 2003
128	Wallsend	3	Blown colourless glass bowl.	Serving	Barrack XII room 10.	Period 1	S.Worrel in Hodgson 2003
129	Wallsend	4	Blown colourless glass cup/bowl.	Serving	Barrack XII room 9.	Period 2/3	S.Worrel in Hodgson 2003
130	Wallsend	5	Blown colourless glass cup/bowl fragments.	Serving	Street (Barracks IX & X).	Period 4+	S.Worrel in Hodgson 2003
131	Wallsend	6	Blown colourless jug/flask neck fragment.	Serving	Below Granary floor.		S.Worrel in Hodgson 2003
132	Birdoswald	59-65	Rotary quernstones.	Preparation			Wilmott, Cool & Evans 2009
133	Birdoswald	29-36	Colourless glass cups, bowls, jars.	Serving			Wilmott, Cool & Evans 2009
134	Birdoswald	37-57	Blue/green glass.	Serving			Wilmott, Cool & Evans 2009
135	Birdoswald	58	Opaque red glass bowl rim.	Serving			Wilmott, Cool & Evans 2009
136	Carlisle (Castle Street)	2.533	Lead weight.	Administration		Period 9	Padley 1991
137	Carlisle (CC)	2.534	Lead weight.	Administration		Period 9	Padley 1991

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No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
138	Carlisle (CC)	2.591	Quern lava upper stone.	Preparation			Padley 1991
139	Carlisle (CC)	2.592	Quern lava upper stone.	Preparation		Period 13	Padley 1991
140	Carlisle (CC)	2.593	Quern lava upper stone.	Preparation		Period 11	Padley 1991
141	Carlisle (CC)	2.594	Quern lava upper stone.	Preparation		Period 9	Padley 1991
142	Carlisle (CC)	2.595	Quern lava upper stone.	Preparation		Period 5	Padley 1991
143	Carlisle (CC)	2.596	Quern lava upper stone.	Preparation		Period 4A	Padley 1991
144	Carlisle (CC)	2.597	Quern upper stone sandstone.	Preparation		Period 13-15.	Padley 1991
145	Carlisle (CC)	2.598	Quern upper stone sandstone.	Preparation		Period 7-8	Padley 1991
146	Carlisle (CC)	2.599	Quern upper stone sandstone.	Preparation		Period 6B	Padley 1991
147	Carlisle (CC)	2.600	Quern lower stone lava.	Preparation			Padley 1991
148	Carlisle (CC)	2.601	Quern lower stone lava.	Preparation		Period 12-16	Padley 1991
149	Carlisle (CC)	2.602	Quern lower stone lava.	Preparation		Period 9	Padley 1991
150	Carlisle (CC)	2.603	Quern lower stone lava.	Preparation		Period 9	Padley 1991
151	Carlisle (CC)	2.604	Quern lower stone lava.	Preparation		Period 6A	Padley 1991
152	Carlisle (CC)	2.605	Quern lower stone sandstone.	Preparation		Period 4A	Padley 1991
153	Carlisle (CC)	2.606	Mortar bowl of red sandstone.	Preparation		Period 10	Padley 1991
154	Carlisle (CC)	2.607	Conical mortar.	Preparation		Period 7	Padley 1991
155	Carlisle (CC)	2.62	Spoon.	Serving		Period 4C	Padley 1991
156	Carlisle (CC)	2.63	Spoon.	Serving		Period 3B	Padley 1991
157	Carlisle (CC)	2.64	Spoon.	Serving		Period 3B	Padley 1991

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No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
158	Carlisle (CC)	2.65	Spoon.	Serving		Period 5	Padley 1991
159	Carlisle (CC)	2.333	Ladle.	Serving		Period 8A	Padley 1991
160	Carlisle (CC)	2.334	Ladle.	Serving		Period 8A	Padley 1991
161	Carlisle (CC)	3.739	Stirrer (bone).	Serving		Period 4A	Padley and Winterbottom 1991
162	Carlisle (CC)	3.741	Scoop (scapula).	Serving		Period 4A	Padley and Winterbottom 1991
163	Carlisle (CC)	3.742	Scoop (scapula).	Serving		Period 4A	Padley and Winterbottom 1991
164	Carlisle (CC)	3.743	Scoop (scapula).	Serving		Period 3B	Padley and Winterbottom 1991
165	Carlisle (CC)	3.744	Scoop (scapula).	Serving		Period 3B	Padley and Winterbottom 1991
166	Carlisle (CC)	3.783	Spatula (wood).	Serving		Period 6B	Padley and Winterbottom 1991
167	Carlisle (CC)	3.784	Spatula (wood).	Serving		Period 3A	Padley and Winterbottom 1991
168	Carlisle (CC)	3.785	Spatula (wood).	Serving		Period 3A	Padley and Winterbottom 1991
169	Carlisle (CC)	2.622	Pillar moulded bowl.	Serving		Period 3B	Padley 1991
170	Carlisle (CC)	2.623	Pillar moulded bowl.	Serving		Period 4C	Padley 1991
171	Carlisle (CC)	2.624	Pillar moulded bowl.	Serving		Period 9	Padley 1991
172	Carlisle (CC)	2.625	Cast colourlessbowl.	Serving		Period 9	Padley 1991
173	Carlisle (CC)	2.629	Blown glass, yellow/green bowl.	Serving		Period 9	Padley 1991
174	Carlisle (CC)	2.630	Blown glass, light/pale green jug handle.	Serving		Period 6A/B	Padley 1991

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No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
175	Carlisle (CC)	2.631	Blown glass, light green jug handle.	Serving		Period 8B	Padley 1991
176	Carlisle (CC)	2.633	Blown glass, colourless beaker base.	Serving		Period 9	Padley 1991
177	Carlisle (CC)	2.634	Blown glass, colourless cup base.	Serving		Period 11	Padley 1991
178	Carlisle (CC)	2.635	Blown glass, colourless cup base.	Serving		Period 11	Padley 1991
179	Carlisle (CC)	2.636	Blown glass, colourless jug/cup/bowl base.	Serving			Padley 1991
180	Carlisle (CC)	2.641	Blown glass, blue/green cup rim.	Serving		Period 12-15	Padley 1991
181	Carlisle (CC)	2.642	Blown glass, blue/green jar rim.	Serving		Period 5	Padley 1991
182	Carlisle (CC)	2.643	Blown glass, blue/green jar rim.	Serving		Period 9-10	Padley 1991
183	Carlisle (CC)	2.644	Blown glass, blue/green jar rim.	Serving		Period 10	Padley 1991
184	Carlisle (CC)	2.645	Blown glass, blue/green jar rim.	Serving		Period 8B	Padley 1991
185	Carlisle (CC)	2.646	Blown glass, blue/green jar rim.	Serving		Period 9	Padley 1991
186	Carlisle (CC)	2.647	Blown glass, blue/green jug handle.	Serving		Period 5	Padley 1991
187	Carlisle (CC)	2.648	Blown glass, blue/green jug handle.	Serving		Period 9	Padley 1991
188	Carlisle (CC)	2.649	Blown glass, blue/green jug handle.	Serving		Period 9	Padley 1991
189	Carlisle (CC)	2.650	Blown glass, blue/green jug handle.	Serving		Period 8B	Padley 1991

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No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
190	Carlisle (CC)	2.651	Blown glass, blue/green jug handle.	Serving		Period 9	Padley 1991
191	Carlisle (CC)	2.652	Blown glass, blue/green jug handle.	Serving		Period 10	Padley 1991
192	Carlisle (CC)	2.654	Blown glass, blue/green bowl/jug base.	Serving		Period 10	Padley 1991
193	Carlisle (Millennium Project)	6.3000	Sickle (wooden handle).	Farming	Workshop (7396).	Period 4A	C. Howard-Davis in Bates et al 2009
194	Carlisle (MP)	10.14	Antler hoe.	Farming	Post hole, barrack (2059).	Period 4A	C. Howard-Davis in Bates et al 2009
195	Carlisle (MP)	6.3285	Fish hook (barbed, spatulate head).	Hunting	Workshop (7394).	Period 3B	C. Howard-Davis in Bates et al 2009
196	Carlisle (MP)	6.3357	Flesh hook?	Preparation	Praetorium (7392).	Period 3A	C. Howard-Davis in Bates et al 2009
197	Carlisle (MP)	9.38	Baker's peel. Oak.	Preparation.	Workshop (5689).	Period 4A	C. Howard-Davis in Bates et al 2009
198	Carlisle (MP)	10.46	Bone/antler spoon.	Serving	External deposit.	1st/2nd C	C. Howard-Davis in Bates et al 2009
199	Carlisle (MP)	5.46	Flagon lid (copper alloy).	Serving	Barrack (2059).	Period 4A	C. Howard-Davis in Bates et al 2009
200	Carlisle (MP)		Colourless glass vessel (3 fragments).	Serving	Barrack (166), rampart building (1194).	Period 3A	C. Howard-Davis in Bates et al 2009
201	Carlisle (MP)		Colourless glass vessel (1 fragment).	Serving	Barrack (3376).	Period 3E	C. Howard-Davis in Bates et al 2009
202	Carlisle (MP)		Colourless glass vessel (1 fragment).	Serving	Barrack (1195).	Period 3B	C. Howard-Davis in Bates et al 2009
203	Carlisle (MP)		Colourless glass vessel (7 fragments).	Serving	Workshop (7200).	Period 3C	C. Howard-Davis in Bates et al 2009
204	Carlisle (MP)		Colourless glass vessel (2 fragments).	Serving	Workshop (7200), road (7478).	Period 3D	C. Howard-Davis in Bates et al 2009
205	Carlisle (MP)		Colourless glass vessel (5 fragments).	Serving	Workshops (5689, 7396).	Period 4A	C. Howard-Davis in Bates et al 2009

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No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
206	Carlisle (MP)		Colourless glass vessel (1 fragment).	Serving	Road (7645).	Period 4A/B	C. Howard-Davis in Bates et al 2009
207	Carlisle (MP)		Colourless glass vessel (3 fragments).	Serving	External deposit, road (4662).	Period 5C	C. Howard-Davis in Bates et al 2009
208	Carlisle (MP)		Colourless glass vessel (1 fragment).	Serving	External deposit.	Period 5D	C. Howard-Davis in Bates et al 2009
209	Carlisle (MP)		Blown blue-green glass (17 fragments).	Serving	Barracks (4652, 5653), workshops (4658, 7393, 7400), road (7476).	Period 3A	C. Howard-Davis in Bates et al 2009
210	Carlisle (MP)		Blown blue-green glass (13 fragments).	Serving	Barrack (3772, 4651), workshop (4006, 4656, 7394), road (4661).	Period 3B	C. Howard-Davis in Bates et al 2009
211	Carlisle (MP)		Blown blue-green glass (6 fragments).	Serving	Workshop (4657, 7200), road (7476).	Period 3C	C. Howard-Davis in Bates et al 2009
212	Carlisle (MP)		Blown blue-green glass (4 fragments).	Serving	Rampart building (1194), barrack (2058, 3772), workshop (2061).	Period 3D	C. Howard-Davis in Bates et al 2009
213	Carlisle (MP)		Blown blue-green glass (8 fragments).	Serving	Barrack (3376), workshop (4657).	Period 3E	C. Howard-Davis in Bates et al 2009
214	Carlisle (MP)		Blown blue-green glass (29 fragments).	Serving	Barrack (2059, 3376, 4655), workshop (7396), road (7477).	Period 4A	C. Howard-Davis in Bates et al 2009
215	Carlisle (MP)		Blown blue-green glass (4 fragments).	Serving	Road (7645).	Period 4A/B	C. Howard-Davis in Bates et al 2009
216	Carlisle (MP)		Blown blue-green glass (21 fragments).	Serving	Workshop (2765, 4660, 5689).	Period 4B	C. Howard-Davis in Bates et al 2009
217	Carlisle (MP)		Blown blue-green glass (5 fragments).	Serving	Workshop (4660, 5689).	Period 4C	C. Howard-Davis in Bates et al 2009
218	Carlisle (MP)		Blown blue-green glass (2 fragments).	Serving	External deposits.	Period 5	C. Howard-Davis in Bates et al 2009
219	Carlisle (MP)		Blown blue-green glass (4 fragments).	Serving	External deposits.	Period 5A	C. Howard-Davis in Bates et al 2009
220	Carlisle (MP)		Blown blue-green glass (2 fragments).	Serving	External deposits.	Period 5B	C. Howard-Davis in Bates et al 2009
221	Carlisle (MP)		Blown blue-green glass (5 fragments).	Serving	External deposits.	Period 5C	C. Howard-Davis in Bates et al 2009

Appendix III.7: Material Culture – Food and administration

No.	Site	Cat. no.	Artefact	Craft/industry	Context (IK)	Date/site period (IK)	Reference.
222	Carlisle (MP)		Blown blue-green glass (4 fragments).	Serving	External deposits, road (4662).	Period 5D	C. Howard-Davis in Bates et al 2009
223	Carlisle (MP)	7.225	Hemispherical weight, lead.	Administration	Principia (5688).	Period 4C	C. Howard-Davis in Bates et al 2009
224	Carlisle (MP)	7.261	Subspherical weight, lead.	Administration	Principia (5688).	Period 4B	C. Howard-Davis in Bates et al 2009
225	Carlisle (MP)	7.262	Cheese-shaped weight, lead.	Administration	Principia (5688).	Period 4B	C. Howard-Davis in Bates et al 2009
226	Carlisle (MP)	7.270	Cheese-shaped weight, lead.	Administration	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
227	Carlisle (MP)	7.304	Steelyard weight(?).	Administration	External deposit (7674).	Period 3B	C. Howard-Davis in Bates et al 2009
228	Carlisle (MP)	7.329	Cheese-shaped weight, lead.	Administration	Gully fill (7488).	Period 3A	C. Howard-Davis in Bates et al 2009
229	Carlisle (MP)	7.346	Sub-conical/cylindrical weight, lead, cast.	Administration			C. Howard-Davis in Bates et al 2009

Appendix III.8: Material Culture – Personal items

	III.8. Personal items.						
No.	Site	Category	Cat. No.	Artefact	Context (IK)	Period IK	Reference
1	Vindolanda	Knives	1134	Small knife.		IV/V	Blake 1999
2	Vindolanda	Knives	1243	Knife.		II/III	Blake 1999
3	Vindolanda	Knives	1414	Knife.		IV/V	Blake 1999
4	Vindolanda	Knives	1428	Knife.		IV	Blake 1999
5	Vindolanda	Knives	3355	Knife.		III	Blake 1999
6	Vindolanda	Knives	3411	Knife.		III	Blake 1999
7	Vindolanda	Knives	3541	Knife tip.		III	Blake 1999
8	Vindolanda	Knives	3601	Knife.		II	Blake 1999
9	Vindolanda	Knives	3909	Small knife.		I/II	Blake 1999
10	Vindolanda	Knives	3931	Knife handle.		II	Blake 1999
11	Vindolanda	Knives	3945	Knife.		II	Blake 1999
12	Vindolanda	Knives	4038	Knife.		III	Blake 1999
13	Vindolanda	Knives	4108	Knife.		II	Blake 1999
14	Vindolanda	Knives	4168	Knife.		III	Blake 1999
15	Vindolanda	Knives	4178	Knife.		II	Blake 1999
16	Vindolanda	Knives	4201	Knife.		II	Blake 1999
17	Vindolanda	Knives	4207	Knife.		III	Blake 1999
18	Vindolanda	Knives	4370	Knife fragment.		III/IV	Blake 1999
19	Vindolanda	Knives	4491	Knife/cleaver blade.		V	Blake 1999
20	Vindolanda	Knives	4638	Knife blade.		V	Blake 1999
21	Vindolanda	Knives	5214	Blade fragment.		V	Blake 1999
22	Vindolanda	Knives	5219	Blade fragment.		V	Blake 1999
23	Vindolanda	Knives	5633	Knife.		IV	Blake 1999
24	Vindolanda	Knives	5943	Knife.		V	Blake 1999
25	Vindolanda	Knives	6072	Knife.		IV	Blake 1999
26	Vindolanda	Knives	6076	Knife.		V	Blake 1999
27	Vindolanda	Knives	6261	Knife.		V	Blake 1999
28	Vindolanda	Knives	6311	Knife.		IV/V	Blake 1999
29	Vindolanda	Knives	6322	Knife.		IV	Blake 1999
30	Vindolanda	Knives	6382	Knife.		IV/V	Blake 1999
31	Vindolanda	Knives	6397	Knife handle.		V	Blake 1999

Appendix III.8: Material Culture – Personal items

No.	Site	Category	Cat. No.	Artefact	Context	Period	Reference
32	Vindolanda	Knives	6527	Knife.		IV	Blake 1999
33	Vindolanda	Knives	6535	Knife.		V	Blake 1999
34	Vindolanda	Knives	8329	Knife (Manning type 7b).	Laminated floor, below IV schola.	III	Blake 2003a
35	Vindolanda	Knives	8165	Knife (Manning type 7a).	Floor of room 2, Period IV building.	IV	Blake 2003a
36	Vindolanda	Knives	8402	Knife (Manning type 11).	Floor of cobbler's shop, Period V.	IV	Blake 2003a
37	Vindolanda	Knives	8414	Knife with bone handle.	Floor of schola corridor.	IV	Blake 2003a
38	Vindolanda	Knives	8349	Knife (Manning type 17).	Cobbler's shop floor.	V/VIA	Blake 2003a
39	Vindolanda	Security	4637	Barb-spring padlock key.		V	A. Birley 1997
40	Vindolanda	Security	3753	Barb-spring padlock key.		V	A. Birley 1997
41	Vindolanda	Security	4242	Barb-spring padlock key.		V	A. Birley 1997
42	Vindolanda	Security	3904	Slide key.		II	A. Birley 1997
43	Vindolanda	Security	61	Slide key.		IV	A. Birley 1997
44	Vindolanda	Security	5063	Slide key.		III/IV	A. Birley 1997
45	Vindolanda	Security	5739	Slide key.		V	A. Birley 1997
46	Vindolanda	Security	5822	Slide key.		V	A. Birley 1997
47	Vindolanda	Security	3526	Slide key.		III	A. Birley 1997
48	Vindolanda	Security	982	Lift keys.		IV	A. Birley 1997
49	Vindolanda	Security	3524	Lift key.		IV	A. Birley 1997
50	Vindolanda	Security	3629	Lift key.		II	A. Birley 1997
51	Vindolanda	Security	4160	Lift key.		III	A. Birley 1997
52	Vindolanda	Security	4361	Lift key.		IV/V	A. Birley 1997
53	Vindolanda	Security	5565	Lift key.		III	A. Birley 1997
54	Vindolanda	Security	494	Lift key.		II	A. Birley 1997
55	Vindolanda	Security	5786	Lift key.		V	A. Birley 1997
56	Vindolanda	Security	5851	Lock bolt key.		V	A. Birley 1997
57	Vindolanda	Security	6091	Latch lifter.		V	A. Birley 1997
58	Vindolanda	Security	4249	Latch lifter.		V	A. Birley 1997
59	Vindolanda	Security	6495	Latch lifter.		III	A. Birley 1997
60	Vindolanda	Security	W485	Latch lifter.		V	A. Birley 1997
61	Vindolanda	Security	W59	Latch lifter.		III	A. Birley 1997
62	Vindolanda	Security	W563	Latch lifter.		IV	A. Birley 1997
63	Vindolanda	Security	W582	Latch lifter.		III	A. Birley 1997
64	Vindolanda	Security	W214	Latch lifter.		V	A. Birley 1997
65	Vindolanda	Security	W151	Latch lifter.		III	A. Birley 1997
66	Vindolanda	Security	5135	Latch lifter.		III	A. Birley 1997

Appendix III.8: Material Culture – Personal items

No.	Site	Category	Cat. No.	Artefact	Context	Period	Reference
67	Vindolanda	Security	4170	Latch.		III	A. Birley 1997
68	Vindolanda	Security	6596	Latch.		III	A. Birley 1997
69	Vindolanda	Security	3762	Latch.		V	A. Birley 1997
70	Vindolanda	Security	5879	Latch.		V	A. Birley 1997
71	Vindolanda	Security	1927	Padlock.		III	A. Birley 1997
72	Vindolanda	Security	4194	Lock plate.		V	A. Birley 1997
73	Vindolanda	Security	5621	Lock plate.		V	A. Birley 1997
74	Vindolanda	Security	W1132	Wooden locking device.		IV	A. Birley 1997
75	Vindolanda	Furniture	W2001-53	Ornate spindle	Fort ditch.	Period I	Birley 2003b
76	Vindolanda	Furniture	W2001-70	Long thin spindle.	Corridor, schola.	Period IV	Birley 2003b
77	Elginhaugh	Security	10.5.2.54	Lock key.	Post-Roman plough soil.	A.D. 79-87	Hanson 2007c
78	Elginhaugh	Security	10.5.2.55	Lock bolt.	Upper fill of ditch 420 in annexe.	A.D. 79-87	Hanson 2007c
79	Elginhaugh	Security	10.5.2.56	Lock bolt.	Plough-disturbed Roman demolition level, S end of Barrack 5.	A.D. 79-87	Hanson 2007c
80	Elginhaugh	Security	10.5.2.144	Lever lock key.	Topsoil.	A.D. 79-87	Hanson 2007c
81	Elginhaugh	Security	10.5.2.145	Lever lock key(?)	Upper fill of demolition pit, Barrack 1.	A.D. 79-87	Hanson 2007c
82	Elginhaugh	Security	10.5.2.146	T-shaped lift key.	General disturbed layer across granaries.	A.D. 79-87	Hanson 2007c
83	Elginhaugh	Security	10.5.2.147	Slide key handle.	Bottom of post-Roman ploughsoil.	A.D. 79-87	Hanson 2007c
84	Elginhaugh	Security	10.5.2.149	Barb-spring padlock (?)	Fill of drain 493 around principia.	A.D. 79-87	Hanson 2007c
85	Elginhaugh	Knives	10.5.2.169	Knife.	Post-Roman ploughsoil.	A.D. 79-87	Hanson 2007c
86	Elginhaugh	Knives	10.5.2.170	Knife tip.	Surface of via Sagularis by SG beneath demolition spread.	A.D. 79-87	Hanson 2007c
87	Elginhaugh	Knives	10.5.2.172	Knife.	Demolition spread over Barrack 9.	A.D. 79-87	Hanson 2007c
88	Elginhaugh	Knives	10.5.2.173	Simple knife.	Copper-working area in principia.	A.D. 79-87	Hanson 2007c

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No.	Site	Category	Cat. No.	Artefact	Context	Period	Reference
89	Elginhaugh	Knives	10.5.2.174	Knife and sheath.	Topsoil.	A.D. 79-87	Hanson 2007c
90	Elginhaugh	Knives	10.5.2.175	Knife.	Fill of primary demarcation gully 138, annexe trench 1.	A.D. 79-87	Hanson 2007c
91	Elginhaugh	Containers	10.7.2.35	Bottle fragment.	Fill of post-hole 797, Barrack 3.	A.D. 79-87	Hanson 2007c
92	Elginhaugh	Containers	10.7.2.36	Bottle fragment.	Upper fill of pit 240, annexe trench 2.	A.D. 79-87	Hanson 2007c
93	Elginhaugh	Containers	10.7.2.37	Bottle fragment.	Occupation layer, annexe trench 3.	A.D. 79-87	Hanson 2007c
94	Elginhaugh	Containers	10.7.2.37a	Bottle fragment.	Fill of fence post-hole 1613, annexe trench 8.	A.D. 79-87	Hanson 2007c
95	Elginhaugh	Containers	10.7.2.38	Bottle fragment.	Post-Roman ploughsoil, annexe trench 7.	A.D. 79-87	Hanson 2007c
96	Elginhaugh	Containers	10.7.2.39	Bottle fragment.	Gravel spread S of road, annexe trench 3.	A.D. 79-87	Hanson 2007c
97	Elginhaugh	Containers	10.7.2.40	Bottle fragment.	Topsoil, annexe trench 2.	A.D. 79-87	Hanson 2007c
98	Elginhaugh	Containers	10.7.2.41	Bottle fragment.	Fill of drain 933 by E gate.	A.D. 79-87	Hanson 2007c
99	Elginhaugh	Containers	10.7.2.42	Bottle fragment.	Demolition spread, north end of Barrack 12.	A.D. 79-87	Hanson 2007c
100	Elginhaugh	Containers	10.7.2.43	Bottle fragment.	Demolition fill of construction trench, Barrack 2.	A.D. 79-87	Hanson 2007c
101	Elginhaugh	Containers	10.7.2.44	Cylindrical bottle.	Basal fill of S funnel ditch 420 across annexe.	A.D. 79-87	Hanson 2007c
102	Elginhaugh	Containers	10.7.2.45	Cylindrical bottle.	Upper fill of pit 240, annexe trench 2.	A.D. 79-87	Hanson 2007c
103	Elginhaugh	Containers	10.7.2.46	Cylindrical bottle.	Demolition spread mixed with collapsed walling 611, Barrack 1.	A.D. 79-87	Hanson 2007c
104	Elginhaugh	Containers	10.7.2.47	Cylindrical bottle.	Topsoil in annexe.	A.D. 79-87	Hanson 2007c
105	Elginhaugh	Containers	10.7.2.48	Cylindrical bottle.	Basal fill of pit 459, annexe trench 3.	A.D. 79-87	Hanson 2007c
106	Elginhaugh	Containers	10.7.2.49	Cylindrical bottle.	Upper fill of pit 236, annexe trench 3.	A.D. 79-87	Hanson 2007c

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No.	Site	Category	Cat. No.	Artefact	Context	Period	Reference
107	Elginhaugh	Containers	10.7.2.50	Cylindrical bottle.	Fill of drain 186 by metalworking area, W rampart.	A.D. 79-87	Hanson 2007c
108	Elginhaugh	Containers	10.7.2.51	Cylindrical bottle.	Basal fill of S funnel ditch 420 across annexe.	A.D. 79-87	Hanson 2007c
109	Elginhaugh	Counters	10.7.2.95	Counter (black).	Post-Roman ploughsoil.	A.D. 79-87	Hanson 2007c
110	Elginhaugh	Counters	10.7.2.96	Counter (black.	Upper fill of S funnel ditch 420 across annexe.	A.D. 79-87	Hanson 2007c
111	Elginhaugh	Counters	10.7.2.97	Counter (black).	Upper fill of inner ditch E of fort.	A.D. 79-87	Hanson 2007c
112	Elginhaugh	Counters	10.7.2.98	Counter (white).	Demolition spread on E side of praetorium.	A.D. 79-87	Hanson 2007c
113	Elginhaugh	Counters	10.7.2.99	Counter (white).	Demolition spread on E side of praetorium.	A.D. 79-87	Hanson 2007c
114	Elginhaugh	Counters	10.7.2.100	Counter (blue).	Demolition layer above via sagularis 1756 in SW corner of fort.	A.D. 79-87	Hanson 2007c
115	Elginhaugh	Counters	10.7.2.101	Counter (yellow).	Disturbed rampart material/demolition by E gate.	A.D. 79-87	Hanson 2007c
116	Elginhaugh	Furniture	10.5.2.219	Stand/support.	Topsoil.	A.D. 79-87	Hanson 2007c
117	Elginhaugh	Furniture	10.5.2.245	Tray/table top.	Topsoil.	A.D. 79-87	Hanson 2007c
118	Housesteads	Security	62	Lock-bolt.	Barrack XIII		Rushworth 2009b
119	Housesteads	Security	63	Lock-bolt.	Barrack XIII		Rushworth 2009b
120	Housesteads	Security	64	Key handle.	Barrack XIII		Rushworth 2009b
121	Housesteads	Security	336	Padlock.	Barrack XIII		Rushworth 2009b
122	Housesteads	Security	337	Lift key.	Barrack XIII		Rushworth 2009b
123	Housesteads	Security	338	Latch-lifter.	Barrack XIII		Rushworth 2009b
124	Housesteads	Furnishings	65	Human foot and leg segment - stand?	Street area.	Phase III	Rushworth 2009b
125	Housesteads	Furnishings	66	As 65 but cruder in style.	Barrack XIII	Phase III	Rushworth 2009b
126	Housesteads	Knives	325	Knife fragments.	North rampart.		Rushworth 2009b
127	Housesteads	Glass	1	Cast and ground glass (millefiori)	East rampart.	1st-3rd C	Rushworth 2009b

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No.	Site	Category	Cat. No.	Artefact	Context	Period	Reference
128	Housesteads	Glass	2	Pillar-moulded bowl.	Drain west end, via principalis.	1st C	Rushworth 2009b
129	Housesteads	Glass	3	Mould-blown glass.	Barrack XIII	1st C	Rushworth 2009b
130	Housesteads	Glass	4	Blown glass.	Barrack XIII	1st C	Rushworth 2009b
131	Housesteads	Glass	5->30	Misc. blown glass.			Rushworth 2009b
132	Housesteads	Glass	31	Ground glass.	Barrack XIII	1st-2nd C	Rushworth 2009b
133	Housesteads	Glass	32	Blown glass.	East rampart.	2nd C	Rushworth 2009b
134	South Shields	Personal	3.722	Coin purse.			Allason-Jones & Miket 1984
135	South Shields	Counters	2.145-2.215	Counters (bone).			Allason-Jones & Miket 1984
136	South Shields	Counters	4.11-4.21	Counters (glass).			Allason-Jones & Miket 1984
137	South Shields	Counters	7.150-7.154	Counters (jet/shale).			Allason-Jones & Miket 1984
138	South Shields	Counters	9.50-9.61	Counters (pottery).			Allason-Jones & Miket 1984
139	South Shields	Counters	12.15-12.22	Counters (stone).			Allason-Jones & Miket 1984
140	South Shields	Dice	2.82-2.86	Dice (bone).			Allason-Jones & Miket 1984
141	South Shields	Dice	9.5	Dice (pottery).			Allason-Jones & Miket 1984
142	South Shields	Gaming	7.147	Fragmentary jet gaming board.			Allason-Jones & Miket 1984
143	South Shields	Gaming	12.1	Stone gameboard (ludus latrunculorum).			Allason-Jones & Miket 1984
144	South Shields	Gaming	7.164-7.168	Gaming pieces (jet/shale).			Allason-Jones & Miket 1984
145	South Shields	Gaming	2.2	Spininng top.			Allason-Jones & Miket 1984
146	South Shields	Security	2.22	Latch key (bone).			Allason-Jones & Miket 1984
147	South Shields	Security	3.343-3.353	Keys (copper-alloy).			Allason-Jones & Miket 1984

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No.	Site	Category	Cat. No.	Artefact	Context	Period	Reference
148	South Shields	Security	5.19-5.24	keys (iron).			Allason-Jones & Miket 1984
149	South Shields	Knives	5.1-5.9	Knives.			Allason-Jones & Miket 1984
150	South Shields	Lamps	3.354-3.356	Bronze lamps.			Allason-Jones & Miket 1984
151	South Shields		9.1-9.3	Pottery lamps.			Allason-Jones & Miket 1984
152	Hardknott	Knives	23	Large knife with wood handle.	Outside fort, east angle tower.		Bidwell et al 1999
153	Hardknott	Knives	24	Knife with long narrow blade.			Bidwell et al 1999
154	Hardknott	Knives	46	Knife handle (antler).			Bidwell et al 1999
155	Hardknott	Security	27	Key.	Bath house.		Bidwell et al 1999
156	Hardknott	Security	28	Key.	North angle tower.		Bidwell et al 1999
157	Hardknott	Lighting	66	Lamp holder/lamp.			Bidwell et al 1999
158	Ribchester	Knives	1.33	Knife guard.	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
159	Ribchester	Knives	1.34	Folding knife.	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
160	Ribchester	Knives	1.35	Knife guard.	Spoil.		Buxton & Howard-Davis 2000
161	Ribchester	Knives	2.80	Knife with sheep bone handle.	Organic layer (EM).	Phase 1:2	Buxton & Howard-Davis 2000
162	Ribchester	Knives	6.288	Small leather knife sheath.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
163	Ribchester	Furniture	1.193	Handle.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
164	Ribchester	Furn	1.194	Handle.	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
165	Ribchester	Furn.	1.195	Handle.	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
166	Ribchester	Furn.	1.196	Knob.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000

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No.	Site	Category	Cat. No.	Artefact	Context	Period	Reference
167	Ribchester	Furn.	1.197-199	Knob.	Spoil.		Buxton & Howard-Davis 2000
168	Ribchester	Furn.	1.200	Hasp.	Spoil.		Buxton & Howard-Davis 2000
169	Ribchester	Furn.	1.201	Moulded cylinder (Romano-British).			Buxton & Howard-Davis 2000
170	Ribchester	Furn.	2.89-94	Handles.		Phase 3-5:2	Buxton & Howard-Davis 2000
171	Ribchester	Security	1.202	Lock pin.	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
172	Ribchester	Security	1.203	Lock bolt.	Abandonment deposit (N).	Phase 1:2	Buxton & Howard-Davis 2000
173	Ribchester	Security	1.204	Lock bolt.	Quarry fill.	Phase 5:1	Buxton & Howard-Davis 2000
174	Ribchester	Security	1.205	Lock bolt.	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
175	Ribchester	Security	1.206	Lock bolt.	Waste/quarry pit.	Phase 5:2	Buxton & Howard-Davis 2000
176	Ribchester	Security	1.207-209	Lock bolt.	Spoil.		Buxton & Howard-Davis 2000
177	Ribchester	Security	2.105-112	Slide keys.		Phase 4:1-5:2	Buxton & Howard-Davis 2000
178	Ribchester	Security	2.113-114	Slide bolts.		Phase 5:1	Buxton & Howard-Davis 2000
179	Ribchester	Security	2.115-116	Lift keys.		Phase 1:2-5:2	Buxton & Howard-Davis 2000
180	Ribchester	Security	2.117-118	Padlocks.		Phase 3-5:2	Buxton & Howard-Davis 2000
181	Ribchester	Lighting	1.210	Candle holder(?)	Punic ditch fill.	Phase 3	Buxton & Howard-Davis 2000
182	Ribchester	Lighting	5.11	Pottery lamp.			Buxton & Howard-Davis 2000
183	Ribchester	Knives	2.82-85	Knife blades.		Phase 5:1-2	Buxton & Howard-Davis 2000

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No.	Site	Category	Cat. No.	Artefact	Context	Period	Reference
184	Ribchester	Knives		Window glass fragments.			Buxton & Howard-Davis 2000
185	Ribchester	Counters	4.244-247	Glass counters.		Phase 3-5:1	Buxton & Howard-Davis 2000
186	Ribchester	Counters	5.2-11	Ceramic counters.		Phase 5:2	Buxton & Howard-Davis 2000
187	Wallsend	Amphorae	8226	Dressel 20 amphorae used as urinal.			Hodgson 2003
188	Wallsend	Window glass	14a	Cast blue/green fragment.	Barrack XII room 3.	Period 2/3	S.Worrel in Hodgson 2003
189	Wallsend	Window glass	14b	Cast blue/green fragment.	Barrack XII room 9.	Period 2/3	S.Worrel in Hodgson 2003
190	Wallsend	Window glass	14c	Cast green/colourless fragment.	Hospital area.		S.Worrel in Hodgson 2003
191	Wallsend	Window glass	14d	Blue/green chip.	Barrack IX room 4.	Period 4+	S.Worrel in Hodgson 2003
192	Wallsend	Window glass	14e	Blue/green chips (6).	Hospital room 3.	Period 2	S.Worrel in Hodgson 2003
193	Wallsend	Window glass	14f	Melted greenish colourless fragment.	Barrack XII.		S.Worrel in Hodgson 2003
194	Wallsend	Window glass	14g	Melted blue/green fragment.	Barrack IX room 6.	Period 4	S.Worrel in Hodgson 2003
195	Wallsend	Knives	78.1	Long iron blade with bone handle.	Building XXI pit.	Period 1	A.T. Croom in Hodgson 2003
196	Wallsend	Knives	78.2	Knife handle made from bone.	Barrack XII room 8.	Period 2/3	A.T. Croom in Hodgson 2003
197	Wallsend	Gaming	80	Die with dot and ring marks.	Barrack XII.		A.T. Croom in Hodgson 2003
198	Wallsend	Gaming	81	Counter (bone).	Barrack XII room 9.	Period 2/3	A.T. Croom in Hodgson 2003
199	Wallsend	Gaming	82	Counter (bone).	Barrack XII.		A.T. Croom in Hodgson 2003
200	Wallsend	Lighting	90	Firmalampe.	Hospital room 5.	Period 2	A.T. Croom in Hodgson 2003

Appendix III.8: Material Culture – Personal items

No.	Site	Category	Cat. No.	Artefact	Context	Period	Reference
201	Birdoswald	Gaming	6-75	Counters.			Wilmott, Cool & Evans 2009
202	Carlisle (Castle Street)	Knives	2.373	Knife (Manning Type 7).		7	Padley 1991
203	Carlisle (CC)	Knives	2.374	Knife (Manning Type 7a).		4A	Padley 1991
204	Carlisle (CC)	Knives	2.375	Knife (Manning Type 7b).			Padley 1991
205	Carlisle (CC)	Knives	2.376	Knife (Manning Type 7b).		5	Padley 1991
206	Carlisle (CC)	Knives	2.377	Knife (Manning Type 7c).		6A	Padley 1991
207	Carlisle (CC)	Knives	2.378	Knife (Manning Type 11a).		4C	Padley 1991
208	Carlisle (CC)	Knives	2.379	Knife (Manning Type 11b).		8A	Padley 1991
209	Carlisle (CC)	Security	2.390	Liftkey (L-shaped).			Padley 1991
210	Carlisle (CC)	Security	2.391	Liftkey (L-shaped).		8B	Padley 1991
211	Carlisle (CC)	Security	2.392	Slidekey(?).		12	Padley 1991
212	Carlisle (CC)	Security	2.393	Lever-lock key.		16	Padley 1991
213	Carlisle (CC)	Security	2.394	Key(?).		8B	Padley 1991
214	Carlisle (CC)	Security	2.395	Barb-padlock bolt.		9-10	Padley 1991
215	Carlisle (CC)	Security	2.396	Lock bar.		16	Padley 1991
216	Carlisle (CC)	Security	3.824	Slide-key handle (wood).		4C	Padley and Winterbottom 1991
217	Carlisle (CC)	Security	2.687f	Blue/green cast window glass.		8A	Padley 1991
218	Carlisle (CC)	Gaming	2.702	Counter (white glass).		4C	Padley 1991
219	Carlisle (CC)	Gaming	2.703	Counter (white glass).		4C	Padley 1991
220	Carlisle (CC)	Gaming	2.704	Counter (white glass).		2-3	Padley 1991
221	Carlisle (CC)	Gaming	3.745	Counter (bone, Crummy Type 1).			Padley and Winterbottom 1991
222	Carlisle (CC)	Gaming	3.746	Counter (bone, Crummy Type 1).		5	Padley and Winterbottom 1991
223	Carlisle (CC)	Gaming	3.747	Counter (bone, Crummy Type 1).		3B	Padley and Winterbottom 1991
224	Carlisle (CC)	Gaming	3.748	Counter (bone, Crummy Type 2).		8B	Padley and Winterbottom 1991

Appendix III.8: Material Culture – Personal items

No.	Site	Category	Cat. No.	Artefact	Context	Period	Reference
225	Carlisle (CC)	Gaming	3.749	Counter (bone, Crummy Type 2).		8A	Padley and Winterbottom 1991
226	Carlisle (CC)	Gaming	3.750	Counter (bone, Crummy Type 2).		8A	Padley and Winterbottom 1991
227	Carlisle (CC)	Gaming	3.751	Counter (bone, Crummy Type 2).		7-8	Padley and Winterbottom 1991
228	Carlisle (CC)	Gaming	3.752	Counter (bone).			Padley and Winterbottom 1991
229	Carlisle (CC)	Gaming	3.753	Counter (bone).		7	Padley and Winterbottom 1991
230	Carlisle (CC)	Gaming	3.754	Bone die.		5	Padley and Winterbottom 1991
231	Birdoswald (1997)	Gaming	12.141	Gaming counter (ceramic).	North-west rampart.	2	Wilmott 1997b
232	Carlisle (Millennium Project)	Security	5.401	Guard of key ring.	Pit fill (5284).	6C	C. Howard-Davis in Bates et al 2009
233	Carlisle (MP)	Security	5.485	Small slide key.	Road surface (7652).	6A	C. Howard-Davis in Bates et al 2009
234	Carlisle (MP)	Security	5.798	Slide bolt (five teeth).	Drain, workshop (5688).	4A	C. Howard-Davis in Bates et al 2009
235	Carlisle (MP)	Security	5.849	Mortise-lock key.	Principia (7391)	3B	C. Howard-Davis in Bates et al 2009
236	Carlisle (MP)	Security	5.859	Slide key (five teeth).	External deposit.	3E	C. Howard-Davis in Bates et al 2009
237	Carlisle (MP)	Security	6.1731	Latch lifter.	Workshop (4657).	3C	C. Howard-Davis in Bates et al 2009
238	Carlisle (MP)	Security	6.2841	Barrel lock.	Road (7217).	4B	C. Howard-Davis in Bates et al 2009
239	Carlisle (MP)	Security	6.3048	T-shaped latch lifter.	Principia (5688).	4A	C. Howard-Davis in Bates et al 2009
240	Carlisle (MP)	Security	6.3350	L-shaped latch lifter/bolt.	Gully fill (7488).	3A	C. Howard-Davis in Bates et al 2009
241	Carlisle (MP)	Knives	6.420	Small knife with antler handle.	Demolition deposit, barrack (2059).	4A	C. Howard-Davis in Bates et al 2009

Appendix III.8: Material Culture – Personal items

No.	Site	Category	Cat. No.	Artefact	Context	Period	Reference
242	Carlisle (MP)	Knives	6.1601	Small knife with bone handle.	Posthole (2956).	5A	C. Howard-Davis in Bates et al 2009
243	Carlisle (MP)	Knives	6.1729	Small knife.	Workshop (4657).	3C	C. Howard-Davis in Bates et al 2009
244	Carlisle (MP)	Knives	6.2650	Decorated bone-handled riveted knife.	Workshop (7396).	4A	C. Howard-Davis in Bates et al 2009
245	Carlisle (MP)	Knives	6.2999	Small knife, fragmented wooden handle.	Workshop (7396).	4A	C. Howard-Davis in Bates et al 2009
246	Carlisle (MP)	Knives	6.3415	Small knife. Copper alloy reinforcements.	Drain, road (7476).	3A	C. Howard-Davis in Bates et al 2009
247	Carlisle (MP)	Knives	6.3499	Small knife. Leather on blade?			C. Howard-Davis in Bates et al 2009
248	Carlisle (MP)	Instrument	6.2927	Bell (iron, copper-alloy plated).	Workshop (5689).	Period 4B	C. Howard-Davis in Bates et al 2009
249	Carlisle (MP)	Lighting	6.3262	Lamp holder.	Workshop (7394).	Period 3B	C. Howard-Davis in Bates et al 2009
250	Carlisle (MP)	Gaming	8.57	Black glass, plano-convex.	External deposit.	Period 4B	C. Howard-Davis in Bates et al 2009
251	Carlisle (MP)	Gaming	8.58	Greyish-white glass, plano-convex.	Posthole (925).	Period 4B	C. Howard-Davis in Bates et al 2009
252	Carlisle (MP)	Gaming	8.105	Black glass, plano-convex.	Workshop (2060).	Period 3A	C. Howard-Davis in Bates et al 2009
253	Carlisle (MP)	Gaming	8.298	Black glass, plano-convex.	Construction trench, workshop (4660).	Period 4B	C. Howard-Davis in Bates et al 2009
254	Carlisle (MP)	Gaming	8.369	Black glass, plano-convex.	Hearth base, barrack (4652).	Period 3A	C. Howard-Davis in Bates et al 2009
255	Carlisle (MP)	Gaming	8.379	Black/dark blue glass, plano-convex.	External deposit.	Period 3E	C. Howard-Davis in Bates et al 2009
256	Carlisle (MP)	Gaming	8.393	Black glass, plano-convex.	Pit fill, barrack (3772).	Period 3B	C. Howard-Davis in Bates et al 2009
257	Carlisle (MP)	Gaming	8.398	White glass, plano-convex.	Barrack (4653).	Period 3A	C. Howard-Davis in Bates et al 2009
258	Carlisle (MP)	Gaming	8.401	Bluish glass, plano-convex.	Barrack (4653).	Period 3A	C. Howard-Davis in Bates et al 2009
259	Carlisle (MP)	Gaming	8.402	Bluish glass, plano-convex.	Barrack (4653).	Period 3A	C. Howard-Davis in Bates et al 2009

Appendix III.8: Material Culture – Personal items

No.	Site	Category	Cat. No.	Artefact	Context	Period	Reference
260	Carlisle (MP)	Gaming	8.428	Bluish glass, plano-convex.	Workshop (4654).	Period 3A	C. Howard-Davis in Bates et al 2009
261	Carlisle (MP)	Gaming	8.435	Bluish glass, plano-convex.	External deposit.	Period 3E	C. Howard-Davis in Bates et al 2009
262	Carlisle (MP)	Gaming	8.440	Bluish glass, plano-convex.	Construction trench, workshop (4657).	Period 3C	C. Howard-Davis in Bates et al 2009
263	Carlisle (MP)	Gaming	8.441	Bluish glass, plano-convex.	Construction trench, workshop (4657).	Period 3C	C. Howard-Davis in Bates et al 2009
264	Carlisle (MP)	Gaming	8.442	White glass, plano-convex.	Pit fill, workshop (4654).	Period 3A	C. Howard-Davis in Bates et al 2009
265	Carlisle (MP)	Gaming	8.443	Black glass, plano-convex.	Workshop (4654).	Period 3A	C. Howard-Davis in Bates et al 2009
266	Carlisle (MP)	Gaming	8.453	Black glass, plano-convex.	External fill.	Period 8F	C. Howard-Davis in Bates et al 2009
267	Carlisle (MP)	Gaming	8.501	Black glass, plano-convex.	Drain, road (7478).	Period 3C	C. Howard-Davis in Bates et al 2009
268	Carlisle (MP)	Gaming	8.600	Black glass, plano-convex.	Gully fill, principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
269	Carlisle (MP)	Gaming	8.610	White glass, plano-convex.	Workshop (7396).	Period 4A	C. Howard-Davis in Bates et al 2009
270	Carlisle (MP)	Gaming	8.625	Black glass, plano-convex.	Road (7479).	Period 4A	C. Howard-Davis in Bates et al 2009
271	Carlisle (MP)	Gaming	8.628-9	White glass, plano-convex.	Principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
272	Carlisle (MP)	Gaming	8.630	White glass, plano-convex.	Road (7476).	Period 3A	C. Howard-Davis in Bates et al 2009
273	Carlisle (MP)	Gaming	8.636	Black glass, plano-convex.	Workshop (7200).	Period 3C	C. Howard-Davis in Bates et al 2009
274	Carlisle (MP)	Gaming	8.637	White glass, plano-convex.	Workshop (7200).	Period 3C	C. Howard-Davis in Bates et al 2009
275	Carlisle (MP)	Gaming	8.641	Black glass, plano-convex.	Posthole, principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
276	Carlisle (MP)	Gaming	8.642	Black glass, plano-convex.	Construction deposit, principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
277	Carlisle (MP)	Gaming	8.657	Glass, plano-convex.	Gully fill (7528).	Period 3A	C. Howard-Davis in Bates et al 2009

Appendix III.8: Material Culture – Personal items

No.	Site	Category	Cat. No.	Artefact	Context	Period	Reference
278	Carlisle (MP)	Gaming	10.10	Bone counter.	External deposit.	Period 3B	C. Howard-Davis in Bates et al 2009
279	Carlisle (MP)	Gaming	10.15	Bone counter.	Robber trench, barrack (2059).	Period 4A	C. Howard-Davis in Bates et al 2009
280	Carlisle (MP)	Gaming	10.16	Bone counter.	Workshop (2060).	Period 3B	C. Howard-Davis in Bates et al 2009
281	Carlisle (MP)	Gaming	10.17	Bone counter.	Workshop (2061).	Period 3B	C. Howard-Davis in Bates et al 2009
282	Carlisle (MP)	Gaming	10.21	Bone counter.	External deposit.	Period 5A	C. Howard-Davis in Bates et al 2009
283	Carlisle (MP)	Gaming	10.26	Bone counter.	Workshop (4657).	Period 3C	C. Howard-Davis in Bates et al 2009
284	Carlisle (MP)	Gaming	10.27	Bone counter.	Workshop (4656).	Period 3B	C. Howard-Davis in Bates et al 2009
285	Carlisle (MP)	Gaming	10.53-6	Bone counters.	Gully fill, principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
286	Carlisle (MP)	Gaming	10.57	Bone counter.	Construction trench, workshop (7396).	Period 4A	C. Howard-Davis in Bates et al 2009
287	Carlisle (MP)	Gaming	10.58	Bone counter.	Workshop (7396).	Period 4A	C. Howard-Davis in Bates et al 2009
288	Carlisle (MP)	Gaming	10.59-60	Bone counter.	Road (7477).	Period 4A	C. Howard-Davis in Bates et al 2009
289	Carlisle (MP)	Gaming	10.61	Bone counter.	Principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
290	Carlisle (MP)	Gaming	10.63	Bone counter.	Construction trench, principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
291	Carlisle (MP)	Gaming	10.65	Bone counter.	Workshop (7200).	Period 3C	C. Howard-Davis in Bates et al 2009
292	Carlisle (MP)	Gaming	10.66	Bone counter.	Construction deposit, principia (5688).	Period 4A	C. Howard-Davis in Bates et al 2009
293	Carlisle (MP)	Gaming	10.67	Bone counter.	Building (7394).	Period 3B	C. Howard-Davis in Bates et al 2009
294	Carlisle (MP)	Window glass		Blue-green glass (2 fragments).	Barrack (1222), Road (7476).	Period 3A	C. Howard-Davis in Bates et al 2009
295	Carlisle (MP)	Window glass		Blue-green glass (1 fragment).	Road (4661).	Period 3B	C. Howard-Davis in Bates et al 2009

Appendix III.8: Material Culture – Personal items

No.	Site	Category	Cat. No.	Artefact	Context	Period	Reference
296	Carlisle (MP)	Window glass		Blue-green glass (9 fragments).	Barrack (2059), road (7477).	Period 4A	C. Howard-Davis in Bates et al 2009
297	Carlisle (MP)	Window glass		Blue-green glass (22 fragments).	Workshops (2765, 5689), road (7217).	Period 4B	C. Howard-Davis in Bates et al 2009
298	Carlisle (MP)	Window glass		Blue-green glass (21 fragments).	Demolition deposit, workshop (5689).	Period 4C	C. Howard-Davis in Bates et al 2009
299	Carlisle (MP)	Window glass		Blue-green glass (2 fragments).	External deposit.	Period 5A	C. Howard-Davis in Bates et al 2009
300	Carlisle (MP)	Window glass		Blue-green glass (4 fragments).	Road (4662), building (2764).	Period 5B	C. Howard-Davis in Bates et al 2009
301	Carlisle (MP)	Window glass		Blue-green glass (2 fragments).	External deposit.	Period 5C	C. Howard-Davis in Bates et al 2009

Appendix IV: Writing Tablet Databases.

Coding the tablets: an analysis of the Vindolanda tablets (volumes I – IV), Carlisle tablets, Vindonissa tablets, and the Abinnaeus archive, identifying key relationships and areas of identity expressed in the contents. All listed items have one or more entry.

> **I –** Military institutional identity. Relating to military hierarchy and activities. This is typically a mundane document relating to administration.

> **RC –** Roman Cultural identity. Reference to core Roman cultural practices or events outside normal military practice, as well as interactions with Roman citizens or through Roman law.

> **NC –** Native/non-Roman Cultural identity. Reference to local cultural practices or events, to local individuals or groups, or to local/non-Roman law.

> **F –** Familial identity. Relating to communication between family members or referencing family members/familial relationships.

> **S –** Social connections. Relating to communication between friends or relating to social events or gatherings.

> **C –** Craft identities. Relating to a specific craft or trade (profession), and to industry.

> **T –** Trade (commercial) identities. Relating to trading activities. Also to storage and distribution of supplies through taxation, requisition etc.

Within table:

> **X –** Tablet relates to this category.

Where **Description** is in italics, the nature of the tablet is conjectural. Where a **?** is used, it indicates a likely but not certain interpretation.

Categories of letter under **Type**:

> **L –** Letter.

> **A –** Account.

> **R –** Report.

> **P –** Petition.

> **LD –** Legal Document.

> **WE –** Writing Exercise.

> **M –** Miscellaneous.

Appendix IV.1.1. Identities and relationships - Vindolanda Tablets

Appendix IV. Writing Tablet Databases.												
IV.1. Identities and relationships.												
IV.1.1. Vindolanda Tablets.												
		Identity category										
Tab. Vindol.	**Tablet no.**	**I**	**RC**	**NC**	**F**	**S**	**C**	**T**	**Agg.**	**Description**	**Period**	**Type**
II	118		X						RC	Writing exercise	III	WE
II	119		X						RC	Writing exercise	III	WE
II	120		X						RC	*Writing exercise*	III	WE
II	121		X						RC	*Writing exercise*	III	WE
II	127	X							I	Morning report	III	R
II	128	X							I	Morning report	III	R
II	129	X							I	Morning report	III	R
II	130	X							I	Morning report	III	R
II	131	X							I	Morning report	III	R
II	132	X							I	Morning report	III	R
II	133	X							I	Morning report	III	R
II	134	X							I	Morning report	III	R
II	135	X							I	Morning report	III	R
II	136	X							I	Morning report	III	R
II	137	X							I	Morning report	III	R
II	138	X							I	Morning report	III	R
II	139	X							I	Morning report	III	R
II	140	X							I	Morning report	III	R
II	141	X							I	Morning report	III	R
II	142	X							I	Morning report	III	R
II	143	X							I	Morning report	III	R
II	144	X							I	Morning report	III	R
II	145	X							I	Morning report	III	R
II	146	X							I	Morning report	III	R
II	147	X							I	Morning report	III	R
II	148	X							I	Morning report	III	R
II	149	X							I	Morning report	III	R
II	150	X							I	Morning report	III	R
II	151	X							I	Morning report	III	R
II	152	X							I	Morning report	III	R
II	153	X							I	Morning report	III	R
II	154	X							I	Strength report	II	R

Appendix IV.1.1. Identities and relationships - Vindolanda Tablets

Tab. Vindol.	Tablet no.	I	RC	NC	F	S	C	T	Agg.	Description	Period	Type
II	155	X					X		I, C	Work report	II	R
II	156	X					X		I, C	Work report	II	R
II	157	X					X		I, C	Work report	II	R
II	158	X								Work report	II	R
II	159	X						X	I, T	Account		A
II	160	X					X		I, C	Work report		R
II	161	X							I	List of names		M
II	162	X								*Name tag/scout report*		R
II	163	X							I	*List of names*		M
II	164	X		X					I, NC	*Brittunculi* report		M
II	166	X	X						I, RC	Letter to Cerialis from […]danus	III	L
II	167	X	X						I, RC	Letter to Cerialis	III	L
II	168	X	X						I, RC	Letter to Cerialis (leave request)	III	L
II	169	X	X						I, RC	Letter to Cerialis from Gannallius	III	L
II	170	X	X						I, RC	Letter to Cerialis	III	L
II	171	X	X						I, RC	Letter to Cerialis from *Expeditus*	III	L
II	172	X	X						I, RC	Letter to Flavianus from Aventinus (leave request)	II	L
II	173	X	X						I,RC	Letter to Priscinus (leave request)	II	L
II	174	X	X	X					I, RC, NC	Leave request to travel to *Ulucio* (in Gaul?)		L
II	175	X	X						I, RC	Leave request from Messicus to travel to Corbridge		L
II	176	X	X						I, RC	Leave request	III	L
II	177	X	X						I, RC	*Leave request*	III	L
II	178	X						X	I, T	Accounts		A
II	179							X	T	Accounts		A
II	180	X	X	X	X		X	X	I, RC, NC, F, C, T	Account of grain distribution		A
II	181	X	X		X			X	I, RC, F, T	Accounts		A
II	182	X	X	X				X	I, RC, NC, T	Accounts		A
II	183	X	X					X	I, RC, T	Accounts		A
II	184	X					X	X	I, C, T	Accounts		A
II	185	X	X					X	I, RC, T	Expenses accounts		A
II	186			X				X	NC, T	Accounts		A
II	187							X	T	Accounts		A

Appendix IV.1.1. Identities and relationships - Vindolanda Tablets

Tab. Vindol.	Tablet no.	I	RC	NC	F	S	C	T	Agg.	Description	Period	Type
II	188							X	T	Accounts		A
II	189							X	T	*Accounts*		A
II	190							X	T	*Accounts*		A
II	191	X	X	X		X		X	I, RC, NC, S, T	Accounts		A
II	192							X	T	Accounts		A
II	193	X						X	I, T	Accounts		A
II	194	X	X						I, RC	Kitchen inventory		A
II	195		X						RC, T	Account/inventory		A
II	196		X						RC	Household inventory	III	A
II	197		X	X						List (shoes: gallic, bath)		A
II	198	X						X	I, T	Accounts		A
II	199							X	T	Accounts		A
II	200	X	X						I, RC	Accounts (months listed)		A
II	201	X						X	I, T	Accounts		A
II	202							X	T	Accounts		A
II	203							X	T	Account (food for a meal)		A
II	204							X	T	Accounts		A
II	205							X	T	Accounts		A
II	206		X					X	RC, T	Account (repayments of loans)		A
II	207	X						X	I, T	Accounts		A
II	208	X		X				X	I, NC, T	List of foodstuffs (recipe?)	III	A
II	209							X	T	Accounts		A
II	210	X	X		X	X			I, RC, F, S	Letter to Iulius Verecundus from fellow prefect (collega/frater)		L
II	211	X	X						I, RC	Letter to Iulius Verecundus		L
II	212		X			X			RC, S	Letter to (Iulius?) Verecundus		L
II	213		X	X				X	RC, NC, T	Letter from Curtius Super to Cassius Saecularis (*latter as interpreter?*)		L
II	214	X	X		X				I, RC, F	Letter from Vittius Adiutor, eagle-bearer of Legio II Augusta, to 'little brother' Cassius Saecularis		L
II	215	X						X	I, T	Letter to Cassius Saecularis from a cornicularius		L
II	218	X				X		X		Letter to Flavius Genialis		L
II	225	X	X			X			I, RC, S	Draft letter from Flavius Cerialis to Crispinus, seeking patronage	III	L

Appendix IV.1.1. Identities and relationships - Vindolanda Tablets

Tab. Vindol.	Tablet no.	I	RC	NC	F	S	C	T	Agg.	Description	Period	Type
II	226	X							I	Letter from Flavius Cerialis	III	L
II	227				X	X			F, S	Letter from Flavius Cerialis referring to sickness of himself or his son	III	L
II	233				X	X	X	X	F, S, C, T	Letter from Flavius Cerialis to Aelius Brocchus	III	L
II	234					X		X		Letter from Flavius Cerialis to Caecilius September	III	L
II	236	X			X				I, F	Letter from Flavius Cerialis to a 'brother'	III	L
II	242	X				X		X	I, S, T	Letter from Flavius Cerialis *to a centurion of his cohort?*	III	L
II	243				X	X			F, S	Letter from Aelius Brocchus to Flavius Cerialis ('brother')	III	L
II	244				X	X			F, S	Letter from Aelius Brocchus to Flavius Cerialis (referencing Severa)	III	L
II	247				X	X			F, S	Letter from Aelius Brocchus to Flavius Cerialis (referencing Lepidina)	III	L
II	248	X	X		X	X			I, RC, F, S	Letter from Niger and Brocchus to Flavius Cerialis ('lord and brother')	III	L
II	250	X	X		X	X			I, RC, F, S	Letter from Claudius Karus to Flavius Cerialis (request for patronage)	III	L
II	252	X						X	I, T	Letter from Caecilius September to Flavius Cerialis	III	L
II	255		X	X		X		X	NC, S, T	Letter from Clodius Super to Flavius Cerialis (relates to clothing for Super's 'boys' and a third party returning fom Gaul)	III	L
II	256	X				X			I, S	Letter from Flavius Genialis to Flavius Cerialis (refers to former hiding in thickets)	III	L
II	257	X			X				I, F	Letter from Valetta to Flavius Cerialis (requesting favour/leniency through Lepidina)	III	L
II	258	X						X	I, T	Letter to Flavius Cerialis from a centurion (relates to a bridge)	III	L
II	259				X	X			F, S	Letter to Flavius Cerialis from Pastor	III	L
II	260					X			S	Letter to Flavius Cerialis ('boys' are soldiers or slaves, not sons)	III	L
II	261		X			X			RC, S	Letter from Hostilius Flavianus to Flavius Cerialis (New Year's Greetings)	III	L
II	263	X			X				I, F	Letter from Vitalis (decurion) to Flavius Cerialis (reference to 'mistress' - Lepidina?)	III	L

Appendix IV.1.1. Identities and relationships - Vindolanda Tablets

Tab. Vindol.	Tablet no.	I	RC	NC	F	S	C	T	Agg.	Description	Period	Type
II	264					X			S	Letter to Flavius Cerialis	III	L
II	265		X		X				RC, F	Letter to Flavius Cerialis (refers to Kalends sacrifice)	III	L
II	266							X	T	Letter to Flavius Cerialis (requesting collection of item/s from Corbridge)	III	L
II	268	X						X	I, T	Letter to Flavius Cerialis (item dispatched via cavalryman)	III	L
II	271							X	T	Letter to Flavius Cerialis (reference to 'small fish')	III	L
II	274	X			X				I, F	Letter to Flavius Cerialis (reference to obeying, and greeting to Lepidina)	III	L
II	281	X							I	Letter to Flavius Cerialis from Cluvius Faber (reference to petitions)	III	L
II	282		X	X		X			RC, NC, S	*Letter to Flavius Cerialis* (reference to 'your custom' but unclear if Roman or Batavian)	III	L
II	283	X	X						RC	Letter to Flavius Cerialis (reference to items needed to travel to Rome?)	III	L
II	284	X							I	Letter to Flavius Cerialis from Claudius Verus (decurion)	III	L
II	288				X	X			F, S	*Letter to Flavius Cerialis (referencing Lepidina)*	III	L
II	289				X	X			F, S	Letter to Flavius Cerialis ('lord and brother')	III	L
II	291		X		X	X			RC, F, S	Letter from Claudia Severa to Sulpicia Lepidina ('sister'; Birthday invitation)	III	L
II	292	X			X	X			I, F, S	Letter from Claudia Severa to Sulpicia Lepidina (right granted to visit 'sister')	III	L
II	293				X	X			F, S	Letter to 'dearest sister' from Claudia Severa	III	L
II	294						X	X		Letter from Paterna to Sulpicia Lepidina (reference to two 'remedies', one for fever)	III	L
II	295	X			X				I, F	Letter from Oppius Niger to Priscinus (reference to Tungrians at Ribchester)		L
II	297							X	T	Letter to Priscinus (accused of 'sharp practice'(?))		L
II	299				X			X	S, T	Letter to Lucius (decurion) (reference to 50 oysters from Cordonovi, a gift from a friend)		L
II	300	X			X	X			I, S	Letter to Lucius (decurion), 'brother'		L
II	301	X	X		X			X	I, RC, F, T	Letter from Severus (slave) to Candidus (slave of prefect Genialis) (re. Saturnalia food supply)		L

Appendix IV.1.1. Identities and relationships - Vindolanda Tablets

Tab. Vindol.	Tablet no.	I	RC	NC	F	S	C	T	Agg.	Description	Period	Type
II	302	X						X	I, T	Letter to a slave of Verecundus (shopping list for praetorium)		L
II	309				X			X	F, T	Letter from Metto to Advectus ('brother'; concerns wooden components of wagons)		L
II	310	X		X	X	X		X	I, NC, F, S, T	Letter from Chrauttius to Veldeius ('brother and messmate', 'groom of the governor'). Reference to 'elders' and 'Sister Thuttena'.		L
II	311	X			X	X			I, F, S	Letter from Sollemnis to Paris (names messmates; requests letters)		L
II	312				X			X	S, T	Letter from Tullio to Cessaucius Nigrinus (duplicarius) *at the meeting place of the Textoverdi?*		L
II	313	X	X						I, RC	Letter fragment (reference to priest and festival)		L
II	314						X	X	T	Letter fragment (*reference to lime production?*)		L
II	315	X					X	X	I, C, T	Letter fragment (refers to dispatch of wagons and prefect Vocusius Africanus)		L
II	316	X						X	I, T	Letter referring to transport of stone		L
II	318	X							I	Letter fragment, relating to orders (*from a centurion*)		L
II	320	X							I	Letter fragment (list of names, including a woman; then refers to deserters being released)		L
II	321					X			S	Letter to Fadus (writer wishes something to go badly for Fadus(?))		L
II	322	X							I	Petition (refers to theft of belt, in servants' baths(?))	III	P
II	324					X			S	Letter between two women		L
II	327							X	T	Letter fragment (refers to small change)		L
II	331		X		X				RC, F	Letter draft ('dearest brother'), other side is a writing exercise		L
II	333		X					X	RC, T	Letter fragment (reference to Arcanus and books)		L
II	343				X	X		X	F, S, T	Octavius to brother Candidus		L
II	344	X	X	X				X	I, T	Petition of beaten trader ('overseas man' - non-local identity?)		P
II	345	X			X				I, F	Letter to a prefect from prefect Celonius Iustus		L
II	346					X		X	S, T	Letter concerning delivery of socks and sandals (messmates identified, and a woman, Sattua)		L

Appendix IV.1.1. Identities and relationships - Vindolanda Tablets

Tab. Vindol.	Tablet no.	I	RC	NC	F	S	C	T	Agg.	Description	Period	Type
II	347					X			S	Letter from Rhenus to Primigenius (both slaves)		L
II	348							X	T	Letter fragment concerning sale of barley		L
II	349	X				X			RC, T	Letter from Fatalis (reference to messmates)		L
II	353				X	X			F, S	Letter fragment (includes greeting to wife and other household members)		L
III	574	X							I	Morning report	III	R
III	575	X							I	Morning report	III	R
III	576	X							I	Morning report	III	R
III	577	X							I	Morning report	III	R
III	578	X							I	Morning report	III	R
III	579	X							I	Morning report	III	R
III	581	X	X	X		X		X	I,RC,NC,ST	Accounts (poultry)	III	R
III	582	X						X	I, T	Accounts (poultry in praetorium)	III	R
III	583							X	T	Accounts (reference to wagons)	III	R
III	586	X						X	I, T	Accounts (wheat distribution)	III	R
III	588							X	T	Accounts (purchase from London of cooking equipment, herbs)	III	R
III	590		X					X	RC, T	Accounts (dining vessels required by cook)	III	R
III	591		X	X				X	RC, NC, T	Accounts (shopping list for food/medicine)	III	R
III	592							X	T	Accounts (shopping list for food)	III	R
III	593		X			X		X	RC, S, T	Accounts (equipment for hunting)	III	R
III	594		X	X		X			RC, NC, S	Accounts (reference to British hunting dogs)	III	R
III	596							X	T	Accounts (items with prices)	III	R
III	597						X	X	C, T	Accounts (workshop parts)	III	R
III	599						X	X	C, T	Accounts (metal and parts for a chariot)	III	R
III	600						X	X	C, T	Accounts (carriage parts)	V	R
III	601							X	T	Accounts (supply of sundry goods)	III	R
III	602			X				X	NC, T	Accounts (Gallic and British clothing/shoes)	III	R
III	604							X	T	Accounts (supply of hobnails)	III	R
III	605			X				X	NC	Accounts (Gallic shoes)	III	R
III	607						X	X	C, T	Account of textile repairs	III	R
III	611					X			S	Letter to Flavius Genialis from Haterius Nepos	III/IV	L
III	612				X	X			F, S	Letter to Flavius Genialis ('brother')		L
III	613				X				S	Letter to Flavius Genialis	IV/V	L
III	615		X	X			X	X	RC, NC, C, T	Letter from Flavius Cerialis (referencing hunting and transport)	III	L

Appendix IV.1.1. Identities and relationships - Vindolanda Tablets

Tab. Vindol.	Tablet no.	I	RC	NC	F	S	C	T	Agg.	Description	Period	Type
III	616					X			S	Letter from Flavius Cerialis (regarding arrangements for social gathering)	III	L
III	617					X			S	Letter from Flavius Cerialis (regarding arrangements for social gathering)	III	L
III	618	X	X						I, RC	Letter from Flavius Cerialis to an equal/superior	III	L
III	621	X				X			I, S	Letter from Flavius Cerialis to a collega	III	L
III	622			X		X	X		RC, F, S	Letter from Aelius Brocchus to Flavius Cerialis (invitation to spend Saturnalia and New Year with them, greetings from Sulpicia Severa to him and Lepidina)	III	L
III	623	X			X	X			I, F, S	Letter from Aelius Brocchus to Flavius Cerialis ('brother', collega)	III	L
III	626				X	X			F, S	Letter from Aelius Brocchus to Flavius Cerialis (fragment; reference to Claudia Severa)	III	L
III	627				X	X			F, S	Letter from Aelius Brocchus to Flavius Cerialis (fragment; reference to Sulpicia Lepidina)	III	L
III	628	X		X				X	I, NC, T	Letter from Masclus to Flavius Cerialis ('king') (concerns request for orders and beer)	III	L
III	629				X	X			F, S	Letter from Clodius Super to Flavius Cerialis (refers to missing Lepidina's birthday)	III	L
III	630				X	X			F, S	Letter from Pontius Festinus to Flavius Cerialis ('brother')	III	L
III	632	X			X				I, F	Letter to Flavius Cerialis ('brother') (concerns orders likely from a superior)	III	L
III	635				X	X			F, S	Letter from Claudia Severa to Sulpicia Lepidina ('sister')	III	L
III	639					X			S	Letter from Claudia Severa to a woman (Lepidina?)	III	L
III	640							X	T	Letter from Aemilianus to Severinus (concerns speculative business transaction?)	III/IV	L
III	641	X				X		X	I, S, T	Letter to Marinus from Arcanus (concerns a sent lamp; messmates greeted)	III	L
III	642				X			X	F, T	Letter to Gabinius from Bellicus (refers to shipment of shingles by wagon; Ingenua greeted)	IV?	L

Appendix IV.1.1. Identities and relationships - Vindolanda Tablets

Tab. Vindol.	Tablet no.	I	RC	NC	F	S	C	T	Agg.	Description	Period	Type
III	643	X			X			X	I, F, T	Letter from Florus to Calavirus/Caelovirus and to Titus (concerns exchanges of various items; a chest to be sealed by a beneficiarius; daughter of Titus, Ingenua, passes on greetings to both)	III?	L
III	645				X			X	F, T	Letter to Cocceius Maritimus from Maior (concerns transactions including grain; written in bed; reference to Maior's father)	III	L
III	646			X	X		X	X	NC, F, C, T	Letter to Optatus from his brother, Montanus (Optatus is a maltster; wished well with selling)	II	L
III	647		X					X	RC, T	Letter to Optatus (regards legal contract concerning a horse/horses)	IV	L
III	648		X					X	RC, T	Letter to Flavius Genialis from Suolcenus (regards a legal debt/bond)	III/IV	L
III	649	X		X				X	I, NC, T	Letter from Probus(?) (concerns use of British wagoneers to transport large quantities of grain to Vindolanda)	II	L
III	650			X				X	NC, T	Letter from Ascanius (comes Augusti) (greets 'fellow countrymen')	II	L
III	653				X				F	Letter to Valerio Maxim- (centurion of the region) (relates to preparations for his family; fragment)	III	L
III	654	X	X						I, RC	Letter to Gentilis (freedman of Flavius Cerialis)	III	L
III	655							X	T	Letter fragment (relates to problematic business transaction)	III	L
III	656	X	X			X		X	I, RC, S, T	Letter fragment (writer does not wish to withdraw from the mess or club unless compelled; seen by the chief at the goldsmiths and silversmiths (London))	III	L
III	657	X				X			I, S	Letter fragment (reference to mess and messmates(?)) (655, 656, 657 possibly same message)	III	L
III	659	X	X	X					I, RC, NC	Letter fragment (refers to someone deported from the province in chains)		L
III	660	X	X			X			I, RC, S	Letter fragment (recommendation of individual; moral progress through liberal pursuits)	IV	L
III	661		X		X	X			RC, F, S	Letter to a woman ('sister') (relates to a surprise birthday gift for a mistress)	III	L

Appendix IV.1.1. Identities and relationships - Vindolanda Tablets

Tab. Vindol.	Tablet no.	I	RC	NC	F	S	C	T	Agg.	Description	Period	Type
III	662	X							I	Letter fragment (relates to a task incomplete due to inebriation)	III	L
III	663				X	X	X		F, S, C	Letter to wife of Priscinus (relates to a medical treatment possibly made by recipient; she is thanked for treating writer 'just as a mother would do')	III	L
III	664				X	X			F	Letter fragment (relates to health; 'brother')	IV?	L
III	666		X					X	RC, T	Letter fragment (relates to supplies for festivities (banquet?))		L
III	667				X			X	F, T	Letter fragment (relates to sending items to writer's brother)	III	L
III	668	X						X	I, T	Letter fragment (items despatched to a camp (by cavalryman?))	III	L
III	670	X			X	X		X	I, F, S, T	Letter from Martius to Victor (relates to trade and interactions between various families; Victor is cavalryman, armourer, and now agent)	VIA	L
III	671	X							I	Letter fragment (relates to orders to equites alae Sebosiana, at Carlisle?)	III	L
III	672						X	X	C, T	Accounts (helmet cheekpiece/machine component)	IV	L
III	673							X	T	Letter fragment (grain supply)	V/VI	L
III	676						X	X	C, T	Accounts fragment (total number of pitchforks?)	III	A
III	677		X					X	RC, T	Accounts (reference to a puppy - hunting dog?)	III	A
III	678							X	T	Accounts (fragmentary)	III	A
III	679		X			X		X	RC, T	Accounts (list of foodstuffs for a special/religious meal?)	III	A
III	680						X	X	C	Account fragment (references Venetus, a butcher?)	III	A
III	683		X					X	RC, T	Account fragment (possible reference to hunting dog and puppy)	IV	A
III	684	X					X	X	I, C, T	Account fragment (timber required for granary)	III	A
III	691						X		C	Letter fragment (reference to repairs)	IV	L
IV	854		X						RC	Writing exercise	II/III	WE
IV	855		X						RC	Writing exercise/creative writing?	II/III	WE
IV	856		X						RC	Writing exercise	II/III	WE
IV	857	X							I	Strength report	I	R

Appendix IV.1.1. Identities and relationships - Vindolanda Tablets

Tab. Vindol.	Tablet no.	I	RC	NC	F	S	C	T	Agg.	Description	Period	Type
IV	858	X							I	Strength report	I	R
IV	859	X							I	Strength report (fragment)	II/III	R
IV	860	X							I	Morning report	IV	R
IV	861	X	X	X			X	X	I, RC, NC, C, T	Accounts (lists a hunter and shield-maker; distribution of weapons and other goods)	IV	A
IV	862	X					X	X	I, C, T	Accounts (work carried out in workshop by blacksmiths)	II/III	A
IV	863				X				F	Fragment (reference to Manduorix, daughter of Vastinus)	II/III	A
IV	865							X	T	Account (foodstuffs?)	III	A
IV	868				X			X	F, T	Letter to Iustus ('I have sent to you, brother…')	II/III	L
IV	869	X	X					X	I, RC, T	Letter to prefect from Secundus (concerns legal transaction)	II/III	L
IV	875					X			X	Letter from Decuminus to Sido ('dear brother') (many individuals greeted)	I	L
IV	876	X						X	I, T	Letter fragment (request for writer's wages to be delivered)	I	L
IV	877						X		C	Letter to Vitalis (pharmacist)	II/III	L
IV	880	X							I	Letter to prefect (requesting lodging in hospitium outside fort)	IV	L
		137	70	25	53	44	25	108				Totals

Appendix IV.1.2. Identities and relationships – Carlisle Tablets

IV.1.2. Carlisle tablets.										
	Identity category									
Tab. Lugoval.	I	RC	NC	F	S	C	T	Agg.	Description	Type
1	X						X	I, T	Accounts (supply of wheat and barley to garrison)	A
2							X	T	Account fragment (concerning modii)	A
3							X	T	Account fragment (concerning denarii)	A
4							X	T	Account fragment	A
5							X	T	Account fragment	A
6							X	T	Account fragment	A
7							X	T	Account fragment	A
9	X							I	Descripta (relates to soldiers at outpostings)	M
10	X							I	Descripta (relates to soldiers at outpostings)	M
16	X			X			X	I, F, T	Letter from Docilis to prefect Augurinus (concerns missing weapons; prefect's family greeted)	L
18	X			X	X			I, F, S	Letter from Primus and Anoncletus to Euphemius, Secundus and Rusticus ('their brothers'; Greek and Latin names so colleagues)	L
19					X			S	Letter to Iulius (a comrade/contubernali)	L
24	X						X	I, T	Letter fragment (reference to attempted acquisition of ten military cloaks)	L
27	X				X			I, S	Letter fragment (reference to colleagues)	L
28	X						X	I, T	Letter fragment (jocular reference to selling shackles to slow-marching soldiers)	L
29							X	T	Letter to Julius Apollonius (refers to return of money)	L
32					X			S	Letter fragment (confusing - 'if anyone eats those dishes, let him go out')	L
33		X		X	X			RC, F, S	Letter fragment ('brother', letter of recommendation)	L
40				X				F	Letter from Scaevo ('dearest, fare well')	L
42	X				X			I, S	Letter fragment (greetings to all writer's colleagues)	L
43	X				X			I, S	Letter fragment (greetings to all writer's colleagues)	L
44	X							I	Letter to trooper of Ala Sebosiana, singularis of Agricola	L
50	X							I	Letter from Cementinus, trooper	L
51	X				X			I, S	Letter from Fulvius Natalis to a colleague	L
	13	1	0	4	8	0	11		**Totals**	

Appendix IV.1.3. Identities and relationships – Vindonissa Tablets

IV.1.3. Vindonissa Tablets.										
	Identity category									
Tab. Vindon.	**I**	**RC**	**NC**	**F**	**S**	**C**	**T**	**Agg.**	**Description**	**Type**
1	X	X		X				I, RC, F	Miitary diploma	D
2	X						X	I, T	Wage receipt of Clua (auxiliary trooper)	LD
3		X					X	RC, T	Promissory note	LD
4	X	X		X		X		I, RC, F, C	Contract (for 'brother' maintaining water supply)	LD
5				X	X			F, S	Letter to Quintus Maius from Na(n)na (wife, friend or slave of soldier)	L
7					X			S	Letter to Veranius (address lacks century)	L
8	X				X			I, S	Letter to Anininus Moderatus (century of Vindex)	L
9					X			S	Letter to C. Aemilius Lupercus	L
10	X				X			I, S	Letter to P. Terentius Tertullus (signifer in Legio XI Claudia pia fidelis)	L
11	X				X			I, S	Letter to Q. Septimius Licinus (centurion)	L
12				X	X			F, S	Letter to soldier in century of Agricola from Familiarus ('father')	L
13	X				X			I, S	Letter to a soldier in century of Atestas	L
14	X				X			I, S	Letter to Caesius in the century of Rennius Aestivus	L
15	X				X			I, S	Letter to S. Calvus (legionary)	L
16	X				X			I, S	Letter to L. Finitius Dubitanus in the century of Tacitus (legionary)	L
17	X				X			I, S	Letter to D. Frontinus in the century of Caius	L
18	X				X			I, S	Letter to Fronto in the century of Vindex	L
19	X				X			I, S	Letter to Iustus in the century of Satricianus	L
20	X				X			I, S	Letter to A. L(-) X(-) in the century of Fenius from Sextus Man(l)ius	L
21	X				X			I, S	Letter to a soldier in the century of Marcus Pius	L
22	X				X			I, S	Letter to Patruinus in the century of Macer, from 'his Cornelius Serenus'	L
23	X				X			I, S	Letter to Rarus in the century of Ser(-) (at the armoury)	L
24	X				X			I, S	Letter to a cavalryman in the Turma of Rarus from Valerius	L
25	X				X			I, S	Letter to Romanius Secundus in the century of Flacilis	L
26	X				X			I, S	Letter to Quintus V- D- in the century of Saturninus	L
27	X				X			I, S	Letter to C. Seius Raeticus in the century of Pontius	L
28	X			X	X			I, F, S	Letter to the brothers of Sornius (in different centuries)	L
29	X				X			I, S	Letter to C. Terentius (forwarded on within century)	L

Appendix IV.1.3. Identities and relationships – Vindonissa Tablets

Tab. Vindon.	I	RC	NC	F	S	C	T	Agg.	Description	Type
30	X			X	X	X		I, S, F, C	Letter to Tullus in the century of Gaius (writer is building/overseeing road; Tullus unaware of a love affair(?))	L
31	X			X	X			I, F, S	Letter to Verus in the century of Adiutor (closes with 'ama nos et vale' (we love and farewell) - letter between close friends and relatives)	L
32	X				X			I, S	Letter to Vindonius in the century of Firmus	L
33	X				X			I, S	Letter to Publius Vitalis, in the century of Attius Valens	L
34				X	X			I, S	Letter to Crescens from father Credanus (nearby)	L
35						X		I, C	Letter to Valerius the shield-maker	L
36	X					X	X	I, C, T	Order for hobnails	A
37		X				X		RC, C	Letter to Gaius (a medicus)	L
38						X		C	Letter to the armourer	L
39	X				X			I, S	Letter to a Veteran	L
40	X				X			I, S	Letter from a soldier on leave homesick for the garrison	L
41				X	X			F, S	Letter to Secundina (slave/freewoman/wife/daughter of an officer?)	L
42			X	X	X			NC, F, S	Letter to Vindoinsa (a local?) from Annius Lucianus	L
43	X		X	X	X			NC, F, S	Letter to Annius Lucianus (at the gyrus) from Vindoinsa	L
44					X			S	Letter to Belica (opposite the bath house)	L
45		X		X	X			RC, F, S	Invitation to a banquet (reference to drink, gambling with dice, gods; 'brother')	L
46	X				X			I, S	Letter regarding nocturnal visitor (unrecognised?)	L
47							X	T	Letter to wine dealer	L
48					X			S	Letter to Micus of Trier from Comus	L
49					X			S	Letter to a friend from Veturius Melus	L
50	X	X						I, RC	Letter to Eurylus or Chrysippus ('his slaves')	L
52				X	X			F, S	Letter to Primigenius Oclatius from his brother Primigenius Camerius (archaic greeting)	L
53					X			S	Letter to Antullus.	L
54					X			S	Letter to Antullus from Norbus.	L
55					X			S	Letter to Quintus Aurelius.	L
56					X			S	Letter to Cassius.	L
57					X			S	Letter to Censorinus.	L
58					X			S	Letter to L. Iulius.	L
59					X			S	Letter to A. Maranius Silex.	L
60					X			S	Letter to T. Pamius Satto.	L
61					X			S	Letter to Salaniccus.	L
62					X			S	Letter to L. Statius Vegetus.	L
63					X			S	Letter to G. Valerius Lucius.	L
64					X			S	Letter to Valerius Maturus.	L
65				X	X			S	Letter from Vocontius to his 'brother'	L
	33	6	2	13	53	6	4		**Totals**	

IV.1.4. Dura-Europos.											
	Identity category										
P.Dura	I	RC	NC	F	S	C	T	Agg.	Description	Period	Type
54	X	X						I, RC	The *Feriale Duranum.*	A.D. 225-235	M
55	X		X						Letter concerning Palmyrene soldiers who had abandoned their camp and dispersed around the area.	A.D. 218-222	L
56	X						X	I, T	Letters from Provincial Headquarters, assigning mounts (distinguishing marks noted).	A.D. 208	L
58	X						X	I, T	Copy of letter from governor Aurelius Aurelianus to tribune/praepositus of Palmyrene cohort, assigning mounts	c.A.D. 240-250	L
59	X							I	Letter from governor Attius Rufinus to praepositus Aurelius …r…[…] (legionary centurion in command of Palmyrene cohort?)	c.A.D. 240-250	L
60	X						X	I, T	File of letters, including a guide to payments to soldiers	c.A.D. 208	L
61	X						X	I, T	Letter concerning *Frumentationes* (here in sense of grain supply)	c.A.D. 216	L
63	X			X			X	I, F, T	Letters from Julius Pomponianus to Saturninus ('lord brother'), concerning movements of a soldier and a possible forced sale	A.D. 211	L
64	X	X	X	X			X	I, RC, NC, F, T	Letter to the tribune Justillus ('honoured son' - *domine fili*) from a praepositus and procurator, concerning legal issues including barley supply.	A.D. 221	L
66	X	X	X	X				I, RC, NC, F	Correspondence file (c. 50 letters between different members of the cohort stationed elsewhere). Letters recalling soldiers stationed with civilians to the garrison, in order to take part in Caracallan campaign. Mix of letters in Greek and Latin, with usual greetings including 'frater'	A.D. 216	L
67	X							I	Copy of letter with names listed by century/turma	c.A.D. 223-225	R

Appendix IV.1.4. Identities and relationships – Dura-Europos

P.Dura	I	RC	NC	F	S	C	T	Agg.	Description	Period	Type
69	X							I	Roster?	A.D. 235-251	R
78				X				F	Fragment of letter	c.A.D. 210-230	L
82	X	X					X	I, RC, T	Morning report (ref. to an animal sacrifice; one soldier sent for bath firewood)	c.A.D. 233	R
83	X							I	Morning report	c.A.D. 233	R
84	X							I	Morning report(?)	c.A.D. 233	R
85	X							I	Morning report(?)	c.A.D. 230	R
87	X							I	Morning report(?)	c.A.D. 230	R
88	X							I	Morning report	A.D. 238-244?	R
89	X		X					I, NC	Morning report (mentions new recruits and the recording of their names and heights)	A.D. 239	R
93	X							I	List of Principales	A.D. 230-240?	R
94	X							I	Summary of dispositions of soldiers	c.A.D. 240	R
95	X							I	Strength report	A.D. 250/251	R
96	X							I	List of names with ranks	c.A.D. 245-255	R
97	X						X	I, T	List of men and mounts (distinguishing marks of latter noted)	A.D. 251	R
98	X							I	Roster	c.A.D. 218	R
100	X							I	Roster	A.D. 219	R
101	X							I	Roster	A.D. 222	R
102	X							I	Roster (list of names by centuries)	A.D. 222-224	R
103	X							I	List of cavalrymen	c.A.D. 224	R
104	X							I	List of names	c.A.D. 235(?)	R
105	X							I	Roster	A.D. 250-256	R
106	X							I	Guard roster	A.D. 235-240	R
107	X							I	Guard roster	c.A.D. 240	R
108	X							I	Guard roster	A.D. 235-240	R
109	X							I	Guard roster	A.D. 246-256	R
110	X							I	Guard roster	A.D. 241	R
112	X							I	Guard roster	A.D. 241/242	R
113	X							I	List of names	A.D. 230-240	R
114	X							I	List of names	A.D. 225-235	R
115	X							I	List of names by turmae and centuries	A.D. 232	R
116	X							I	List of names and notations by centuries and turmae (list of Principales?)	A.D. 236	R

Appendix IV.1.4. Identities and relationships – Dura-Europos

P.Dura	I	RC	NC	F	S	C	T	Agg.	Description	Period	Type
117	X							I	List of names by centuries, with numerals	A.D. 236	R
118	X							I	List of names	A.D. 255	R
119	X							I	List of names	A.D. 230-240	R
120	X							I	List of names by centuries, with dates by day and month	A.D. 233-235	R
121	X	X	X					I, RC, NC	Records of accessions by transfer (new recruits placed with unit)	A.D. 241	R
122	X	X						I, RC	List by centuries of soldiers of the same year (either new recruits - tirones - or veterans ready for retirement)	c.A.D. 241-242	R
123	X							I	List of names	After A.D. 255	R
124	X							I	List of names	A.D. 220-230	R
125	X	X					X	I, RC, T	Decision of a tribune, regarding a transaction	A.D. 235	LD
126	X	X	X			X	X	I, RC, NC, C, T	Decision of a tribune regarding a local dispute over use of a potter's shop (local law is acknowledged)	A.D. 235	LD
127	X	X						I, RC	Decision of a tribune(?)	c.A.D. 235(?)	LD
128	X	X						I, RC	Fragments of an official journal	c.A.D. 245	LD
129	X	X	X				X	I, RC, NC, T	Receipt of money for purchase of barley (reference is made to the agents of the taxpayers being present)	A.D. 225	LD
	54	11	7	4	0	1	11		**Totals**		

Appendix IV.1.5. Identities and relationships – Abinnaeus Archive

IV.1.5. Abinnaeus Archive.										
	Identity category									
Abb.	**I**	**RC**	**NC**	**F**	**S**	**C**	**T**	**Agg.**	**Description**	**Type**
1	X	X						I, RC	Petition to Emperors (request for confirmation of patronage)	P
2	X							I	Letter (Abinnaeus dismissed from position by Dux of Egypt)	L
3	X						X	I, T	Letter (Abinnaeus asked to protect tax collectors)	L
4	X						X	I, T	Letter from Aetius (tax collector) (asks Abinnaeus for supplies)	L
5	X	X	X				X	I, RC, NC, T	Letter from Aetius (concerns collection of crops and issues of legal access to land)	L
6	X						X	I, T	Letter from Miôs to Abinnaeus (asks for nets to stop gazelles eating crops)	L
7	X				X			I, S	Letter from Miôs to Abinnaeus (requests meeting)	L
8	X				X		X	I, S, T	Letter from Miôs to Abinnaeus (concerns wine, camels)	L
9	X	X	X				X	I, RC, NC, T	Letter from Demetrius (tax collector?) to Abinnaeus (request to stop camels and seize natron)	L
10	X		X				X	I, NC, T	Petition to Abinnaeus from Iovinus (soldier?) to intercede on behalf of an orphan and ensure he receives his vegetable seeds	P
11	X							I	Letter from Luppercinus to Abinnaeus (passing on orders from Dux)	L
12	X			X				I, F	Letter from Luppercinus to Abinnaeus (relates to the son of a soldier being beaten)	L
13	X	X	X				X	I, RC, NC, T	Letter from Plutammon (exactor) to Abinnaeus (refers to latter sending horses instead of money, endangering him)	L
14	X							I	Letter from Plutammon to Abinnaeus (latter is criticised)	L
15	X	X	X					I, RC, NC	Letter from Plutammon to Abinnaeus (grandsons of writer attacked while carrying out duties?)	L
16	X					X	X	I, C, T	Letter from Sabikas to Abinnaeus (requests capers and natron; refers to smiths being sent to cut timber)	L
17	X							I	Letter from Sambas to Abinnaeus (warning of visit by official notarius)	L
18	X		X					I, NC	Letter from Chaeremon (president of council of Arsinoe) demanding release of conscripted troops)	L
19	X			X				I, F	Letter from Mios to Abinnaeus (requests that wife's brother be excused military duty to care for mother)	L
21	X						X	I, T	Letter from Alypius to Abinnaeus (requests commissions; grain)	L
22				X			X	F, T	Letter from Apollôs to Abinnaeus (concerns supply of bread to a house owned by Abinnaeus)	L

Appendix IV.1.5. Identities and relationships – Abinnaeus Archive

Abb.	I	RC	NC	F	S	C	T	Agg.	Description	Type
23				X	X			F, S	Letter from Apollôs to Abinnaeus (request that Abinnaeus meet his son and family)	L
24				X	X			F, S	Letter to Abinnaeus from Theotecnus (greets Abinnaeus as 'father')	L
25				X	X			F, S	Letter from Sarapion to Abinnaeus (greets by name Abinnaeus' household members)	L
26	X						X	I, T	Letter from Agathos (actuarius) to Abinnaeus (relates to collection of imperial annona from within fort)	L
27	X	X	X				X	I, RC, NC, T	Letter from Hatres to Abbinnaeus ('master') (relates to violence of soldiers collecting taxes)	L
28	X	X	X					I, RC, NC	Letter from Demetrius to Abinnaeus (has been mistreated by a soldier of Abinnaeus but is contacting him before other local authorities)	L
29	X						X	I, T	Letter from Eulogius (decurion) to Abinnaeus (relates to arrest made while collecting barley tax)	L
30							X	T	Letter from Zanathus to Abinnaeus (requests camels and money)	L
31	X	X				X	X	I, RC, C, T	Letter from Thareotes to Abinnaeus (patronage request for nephew; supply of food; craftsmen to make nets)	L
32	X	X						I, RC	Letter from Kaor (priest of Hermopolis) (request for leniency for soldier Paul who deserted)	L
33	X			X				I, F	Letter to Abinnaeus from Clematius (requesting leave for kinsman Ision)	L
34	X			X				I, F	Letter to Abinnaeus from 'Mother of Moses' (requesting leave for son Heron - brother of Moses?)	L
35	X							I	Letter from Paesius to Abinnaeus (failure to find new recruits in three days - conscription mission?)	L
36				X			X	F, T	Letter from Palas (house slave) to Abinnaeus (refers to wife, requests sheep)	L
37	X						X	I, T	Letter from an agent to Abinnaeus (justifying debtors' non-appearance at fort)	L
40							X	T	Receipt (mooring costs for a ship)	M
41	X				X		X	I, S, T	Memo (refers to Paul being sent for bow strings - military or hunting?)	M
42	X				X	X		I, S, C	Memo (Romanus, ducenarius, to contubernalis, Geladius. Message is warrant for the arrest of a fraudulent barber)	M
43				X			X	F, T	Memo (debts owed to Abinnaeus's brothers and sons for dates, barley, fodder etc)	M
44	X	X				X	X	I, RC, C, T	Petition of Sakaon to Abinnaeus against Heron (regarding theft of 82 sheep; these are to be shorn)	P

Appendix IV.1.5. Identities and relationships – Abinnaeus Archive

Abb.	I	RC	NC	F	S	C	T	Agg.	Description	Type
45	X	X		X				I, RC, F	Petition of Fl. Priscus, veteran, and Alia, his wife (against housebreakers who used subterranean tunnel to steal goods while wife was alone in house)	P
46	X	X					X	I, RC, T	Petition of Theodorus against violent tax collectors.	P
47	X	X						I, RC	Petition of Fl. Aunes, veteran at Hermopolis (house was burgled: appeal to make Herm. authorities act)	P
48	X	X	X				X	I, RC, NC, T	Petition of Aurelius Aboul against soldier Paul (who had stolen and sheared eleven of his sheep, along with son of village policeman (irenarch))	P
49	X	X		X			X	I, RC, F, T	Petition of Aurelia Mary, daughter in law of a soldier (complains of shearing and theft of sheep)	P
50	X	X					X	I, RC, T	Petition of Aurelius Anteus (embezzled of share in annona by Aion of neighbouring village)	P
51	X	X	X	X				I, RC, NC, F	Petition of Aurelia Ataris, daughter of veteran (Poleion, his wife, and son of policeman had imprisoned and beaten her)	P
52	X	X	X	X				I, RC, NC, F	(As 51 but names changed)	P
53	X	X					X	I, RC, T	Petition against Zoilus (accused of theft of ten pigs)	P
55	X	X						I, RC	Petition of Aurelius Heron, deacon of church at Berenice, accusing Euporus of Philagris of burglary.	P
56	X	X	X				X	I, RC, NC, T	Petition of Aurelia Mary, daughter of Peeius of Hermoupolis, accusing brother of stealing and selling items left to her by parents.	P
57	X	X	X				X	I, RC, NC, T	Petition of Aurelianus Uranius, relaying statement of Dioscorus regarding sheep-stealers who had attacked the latter.	P
58	X	X					X	I, RC, T	Contract of Aurelius Eulogius, president of senate, who pledges to repay money spent to Abinnaeus if he procures him an epistula exactoriae - earning title of exactor on an honorary basis, without the grreat expense involved in gaining it normally.	LD
59	X	X					X	I, RC, T	Contract of Aurelius Plas, veteran of Dionysias, pledging to repay costs to Abinnaeus if his son is made decurion.	LD
60	X	X					X	I, RC, T	Flavius Elias, soldier seconded to camp at Dionysias, sells two cows to Abinnaeus at price of 1,200 talents	LD
61	X	X						I, RC	Guarantee that Aurelius Iulius will produce Ammonius of Taurinou when requested.	LD
62		X		X			X	RC, F, T	Contract between brother and sister of Nonna, Abinnaeus's wife, regarding division of a house in Philadelphia.	LD

Appendix IV.1.5. Identities and relationships – Abinnaeus Archive

Abb.	I	RC	NC	F	S	C	T	Agg.	Description	Type
63		X		X			X	RC, F, T	Minutes of proceedings before iurudicus of alexandria, Flavius Gennadius, regarding division of house - dispute between Nonna, Ab.'s wife, and siblings.	LD
64		X		X			X	RC, F, T	Bill of sale for two slaves, sold by Petrus and Zenon to Nonna, for 1200 talents.	LD
65							X	T	Contract of sale between Aur. Phileas and possibly Abinnaeus.	LD
66	X	X	X				X	I, RC, NC, T	Tax contributions related to the annona, collected from named farmers by Ab's troops and sorted by village.	LD
67	X	X					X	I, RC, T	Tax contributions related to the annona, collected from named farmers by Ab's troops and sorted by village.	LD
68	X	X				X	X	I, RC, C, T	Tax contributions related to the annona, collected from named farmers by Ab's troops and sorted by village (sackmaker referenced)	LD
69	X						X	I, T	Account (relates to collection of barley and similar)	A
70	X						X	I, T	Account (corn given in artabas against names)	A
71	X		X			X	X	I, NC, C, T	List of owners of donkeys available for requisition locally (dyers and stonecutters identified)	A
72	X		X				X	I, NC, T	Schedule of liquids - olive oil of high quality, along with names of nineteen villagers of Andromachis.	A
73	X	X					X	I, RC, T	Exaction of barley - payment in place of grain?	A
74	X	X					X	I, RC, T	Payment of money to get out of work on embankments.	A
75	X	X					X	I, RC, T	Schedule of wine. Lists names and commodities inc. corn, fleeces, a pig etc.	A
76	X	X					X	I, RC, T	Schedule of corn	A
77	X						X	I, T	Names of soldiers and corn	A
78	X				X		X	I, S, T	Hermias's corn account - corn and barley allocation for 12 people. Messing unit?	A
79	X						X	I, T	Account (corn rations sold to Tauria in the Oxyrhynchite)	A
80	X	X					X	I, RC, T	Account (identifies wheat, barley, lentils, sheep and cows of two villages)	A
81				X			X	F, T	Account (domestic account, including clothing)	A
82	X						X	I, T	Account (records sacks of grain and transportation by camel drivers)	A
	65	37	16	18	8	6	53		Totals	

IV.2. References within Vindolanda Tablets.

IV.2.1. Titles.

Title.	Tablet reference (*TV* II, III, IV).	Total uses.
Dominus (lord, master)	166(1), 167(1), 168(1), 169(1), 170(1), 171(1), 172(1), 173(1), 175(1), 176(1), 190(2), 225(2), 234(1), 238(1), 239(1), 247(1), 248(1), 250(1), 252(1), 256(1), 257(1), 260(1), 262(1), 264(1), 285(1), 288(1), 289(1), 295(1), 303(1), 306(1), 316(1), 318(1), 332(1), 344(1), 345(1), 350(1), 353(1), 355(1), 407(1), 474(1), 496(1), 505(1), 581(1), 611(1), 613(1), 614(1), 618(1), 623(1), 628(1), 631(1), 640(1), 646(1), 647(1), 656(1), 695(1), 740(1), 756(1), 788(1), 796(1), 843(1), 880(2).	64
Domina (lady, mistress)	263(1), 294(1), 581(1), 661(2).	5
Frater (brother)	210(1), 233(1), 236(1), 243(1), 247(1), 248(2), 250(1), 252(1), 255(1) 259(1), 260(1), 265(1), 289(1), 295(1), 297(1), 300(1), 301(2), 306(1), 309(1), 310(4), 311(1), 331(1), 343(1), 345(2), 352(1), 456(1), 508(1), 611(1), 612(1), 614a(1), 622(1), 623(1), 629(1), 630(1), 632(1), 643(1), 646(1), 664(1), 667(1), 669(1), 670(2), 693(1), 713(1), 730(1), 750(1), 756(1), 790(1), 844(1), 848(1), 868(1), 869(1), 875(2), 877(1)	60
Fraterculum (little brother)	214(1).	1
Soror (sister)	291(3), 292(2), 293(1), 310(1), 389(1), 635(1), 639(1), 661(1).	11
Pater (father)	180 (3), 645 (2), 670 (1)	6
Puer (boy)	255(1), 260(1), 642(1), 645(1).	4
Filia (daughter)	643(1), 670(1), 863(1).	3
Contubernalis (messmate, or common law partner(?))	181(1), 310(1), 311(1), 343(1), 346(1), 349(1), 641(1), 658(2), 698(1).	10
Conturmalis (fellow trooper)	329(1)	1
Commilito (fellow soldier)	226(1), 318(1), 615(1), 628(1), 703(1), 721(1)	6

Karissimus (dearest…)	242(1), 247(1), 288(1), 291(1), 292(1), 293(1), 298(1), 331(1), 341(1), 355(1), 611(1), 613(1), 622(1), 632(1), 635(1), 661(1), 670(1), 696(1), 869(1), 875(1)	20
Homo transmarinus (man from overseas)	344(1)	1
Brittones (Britons)	164(1), 649(1).	2
Brittunculi ('wretched Britons')	164(1).	1

Table IV.2.1. Index of forms of address in the Vindolanda tablets.

IV.2.2. Professions.

Professional title.	Tablet reference (*TV* II, III, IV).	Total uses.
Consul (Consul)	186(1), 581(1).	2
Legatus (governor)	154(1), 581(1), 660(1).	3
Praefectus (prefect)	154(1), 177(1), 209(1), 210(1), 211(1), 220(1), 242(1), 244(1), 245(1), 248(1), 250(1), 255(1), 258(1), 260(1), 263(1), 267(1), 268(1), 273(1), 283(1), 284(1), 285(1), 287(1), 301(1), 305(1), 313(1), 315(1), 319(1), 344(1), 345(1), 399(1), 423(1), 531(1), 869(1).	33
Centurio regionarius (centurion of the region)	250(1), 653(1).	2
Centurio (centurion)	154(7), 182(2), 183(1), 193(1), 242(1), 255(1), 258(1), 263(1), 344(1), 351(1), 581(1), 680(1)	19
Decurio (decurion)	263(1), 284(1), 299(1), 300(1), 345(1), 581(1), 586(1), 590(1), 628(1), 700(1)	10
Optio (chosen man of centurion)	127(2), 128(2), 129(1), 137(1), 138(1), 148(1), 163, 454, 574(1), 578(1), 849(1)	13
Miles (soldiers)	162(1), 180(1), 226(1), 295(1), 594(1).	5
Eques (cavalrymen)	164(2), 181(1), 252(1), 268(1), 300(1), 506(1), 670(1), 671(1), 706(1).	10
Duplicarius (double-pay soldier)	312(1).	1
Tesserarius (keeper of the password)	176(1), 182(1).	2
Librarius (clerk)	594(1), 670(1).	2
Cornicularius (trumpeter)	215(1), 586(1), 607(1).	3

Armorum custos (quartermaster)	670(1).	1
Beneficiarius (seconded soldier)	180(1), 344(1), 581(1), 642(1), 643(1)	5
Singularis (guard)	154(1), 581(1).	2
Veteranus (veteran)	187(1), 581(1), 593(1), 670(1).	4
Medicus (doctor)	156(1).	1
Faber (craftsman)	160(4), 718(1), 833(1), 862(3).	9
Curator (keeper)	127(1), 128(1), 574(1).	3
Uexsillario (flag-bearer)	181(1), 670(1).	2
Balniator (bathman)	181(1), 732(1).	2
Ueterinario (veterinarian)	181(1).	1
Seplasiario (pharmacist)	877(1).	1

Table IV.2.2. Professional titles in the Vindolanda tablets.

IV.2.3. Buildings.

Title.	Tablet reference.	Total uses.
Castra	156(1), 300(1), 311(1), 356(1), 668(1)	5
Principia	299(1).	1
Fabrica	155(1), 862(1).	2
Balneum	155(1), 322(1).	2
Hospitium	156(1), 880(2).	3
Valetudinarium	155(1).	1

Table IV.2.3.. References to buildings within the fort community.

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