

# Scotland: The Roman Presence



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Scotland: The Roman Presence



#### **ScARF Summary Roman Presence Report**

#### Fraser Hunter & Martin Carruthers (editors)

With panel member contributions from David Breeze, James Bruhn, Jim Crow, Martin Goldberg, William Hanson, and Rebecca Jones

For contributions, images, feedback, critical comment and participation at workshops: Derek Alexander, Lindsay Allason-Jones, Georgina Brown, Louisa Campbell, Robert Collins, Murray Cook, Dave Cowley, Julia Cussans, Mairi Davies, Andrew Dunwell, Sally Foster, Phil Freeman, Martin Goldberg, Moira Greig, Mark Hall, Strat Halliday, Louisa Hammersley, Kay Hartley, Nick Hodgson, Birgitta Hoffman, Jim Jones, Lawrence Keppie, John Lawson, Anne MacSween, Frances McIntosh, Lorna Main, Colin Martin, Roger Mercer, Mike Middleton, Tessa Poller, John Poulter, Jennifer Price, Andrew Rich, Biddy Simpson, Colin Wallace, Gareth Wells and David Woolliscroft



### **Executive Summary**

#### Why research Roman Scotland?

This is currently an exciting time to be studying Roman Scotland. Well-established approaches to the period, which have focused very much on aspects of military history and politics have been enlivened by studies questioning long-held views on frontier history. To this debate has been added a much broader appreciation of other aspects of the period, looking at topics such as military supply, the diversity of peoples and identities in the frontier zone, and more subtle understandings of interactions with the indigenous population there. The wealth of complex data from the Roman period provides an ideal arena in which to explore these topics so that the application of these ideas, and the questioning of former certainties, is newly revived for Roman Scotland.

Study of military organisation and campaigning remains fundamental — and not just in the disposition and chronology of their installations, which still presents challenges. Current research is, however, moving to a more complex, more all-encompassing picture of life in the frontier zone through studies including: the lifestyles and identities of the soldiers and the similarities and differences that occurred among them; the impact of forts on the landscape that they dominated both militarily and as settlement nodes which created and drew activity to them; and the effects of these new social and economic phenomena on local populations. The shifting chronology of contact makes it possible to look at the effects of frontier systems (and thus the meaning and purpose of frontiers) in such detail that is rarely possible elsewhere. Researching Roman Scotland therefore has a significant contribution to make to wider studies of the Roman world. The existing dataset contains material whose potential has barely been tapped — such as surveys of forts (e.g. for questions of landscape setting) or some aspects of the rich finds assemblages in museums.

#### Panel Task and Remit

The Roman panel was asked to critically review the current state of knowledge, and consider promising areas of future research into the Roman presence in Scotland. This is intended to help with the building of testable, defensible and robust narratives that describe and explain the impact of the Roman presence on contemporary and post-Roman societies, as well as, in turn, the impact of developments on the Scottish frontier on the Roman Empire. This will facilitate the work of those interested in the Scottish Iron Age and help set a trajectory for future research. Although the remit of the current project is Scottish, it is important that this research is undertaken within the wider context of the northern military zone and broader studies of the Roman frontier. Equally, it is vital that it should not be seen as a separate element from the Scottish Iron Age, as the interrelation of the two is critical.

This report, the result of the panel's deliberations, is structured by theme: Changing Perspectives; The time and place of Roman Scotland; Forts in their landscapes; Supplying the army; Changing worlds; Roman Scotland in the Roman world; and Research and methodological issues. The themes reflect the desire to understand the impact of the Roman presence in Scotland within a wider European context. The document, which outlines the different areas of research work and highlights promising research topics, is reinforced by material in an on-line Wiki format which provides further detail and resources. The Roman Scottish Archaeological Research Framework is intended as a resource to be utilised, built upon, and kept updated, hopefully by those currently involved in the work of the panel as well as those who follow them.



#### **Future Research**

The main recommendations of the panel report can be summarised under five key headings:

- Scotland in the Roman world: Research into Roman Scotland requires an appreciation of the wider frontier and Empire-wide perspectives, and Scottish projects must be integrated into these wider, international debates. The rich data set and chronological control that Scotland has to offer can be used to inform broader understandings of the impact of Rome.
- Changing worlds: Roman Scotland's rich data set should be employed to contribute to wider theoretical perspectives on topics such as identity and ethnicity, and how these changed over time. What was the experience of daily life for the various peoples in Roman Scotland and how did interactions between incomers and local communities develop and change over the period in question, and, indeed, at and after its end?
- Frontier Life: Questions still remain regarding the disposition and chronology of forts and forces, as well as the logistics of sustaining and supplying an army of conquest and occupation. Sites must be viewed as part of a wider, interlocking set of landscapes, and the study of movement over land and by sea incorporated within this. The Antonine Wall provides a continuing focus of research which would benefit from more comparison with frontier structures and regimes in other areas.
- Multiple landscapes: Roman sites need to be seen in a broader landscape context, 'looking beyond the fort' and explored as nested and interlocking landscapes. This will allow exploration of frontier life and the changing worlds of the Roman period. To do justice to this resource requires two elements:
  - Development-control archaeology should look as standard at the hinterland of forts (up to c.1 km from the 'core'), as sensitive areas and worthy of evaluation; examples such as Inveresk show the density of activity around such nodes. The interiors of camps should be extensively excavated as standard.
  - Integrated approaches to military landscapes are required, bringing in where appropriate topographical and aerial survey, LIDAR, geophysics, the use of stray and metal-detected finds, as well as fieldwalking and ultimately, excavation.
- **The Legacy of Rome**: How did the longer term influence of the Romans, and their legacy, influence the formation, nature and organisation of the Pictish and other emergent kingdoms?





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#### 1. Introduction: The Impact of Rome

Within the broad remit of the Iron Age panel (covering the period c.800 BC - AD 400), it was clear that the Roman period merited detailed separate treatment, and recognition of the rather different research environment and intellectual frameworks in which it has traditionally operated in (the wider world of Roman frontier and Roman military research), and because of the sheer wealth of data retrieved in Scotland. Equally, it was vital that it should not be seen as a separate element from the Iron Age that encompasses it chronologically, as the interrelation of the two was critical at the time and is intellectually critical today. Thus, a Roman Iron Age panel was constituted to look at the period of engagement with the Roman world in detail; the main perspectives relevant to indigenous society were then integrated in the Iron Age panel's deliberations.

The aim from the start was to reflect changing perspectives on the Roman period. As indicated above, the last couple of decades have been an exciting time for Roman studies, particularly in Britain and especially on the frontier. Former approaches to the period, focused very much on aspects of military history and politics, remains relevant, and has been enlivened by various studies questioning long-held views on frontier history. To this has been added a much broader appreciation of aspects, including more understandings of interactions with the indigenous population. In the wider Roman archaeology community, much of this has drawn very visibly on developing theoretical trends such as the archaeology of identity and the interplay of structure and agency while the wealth of complex data from the Roman period provides an ideal case study for this. The application of these ideas is only just starting for Roman Scotland, but the area has clear advantages for such approaches, not least in the time-limited horizons of Roman contact which provide valuable case studies of relevance far beyond the country's current borders. The military dimension remains

fundamental to this study, not just in the disposition and chronology of their installations, but:

- in the lifestyle and identity of the individual soldiers and the degree of consistency and variety that existed between them;
- in the communities who followed the soldiers, such as camp followers, traders and craftspeople;
- in the impact of forts on the landscape, as settlement nodes which both created sui generis and drew activity of all kinds;
- in the impact on the local populations and in moving beyond simplistic oppositions ('Roman' and 'native'; 'Romanisation' and 'resistance') to a more complex, more realistic picture of life in the environs of the frontier.

These are issues are covered in the key themes that have been identified for examination in this Report:

- Changing perspectives, to look at the historical development of approaches to Roman archaeology in Scotland.
- The time and place of Roman Scotland, to consider issues of the disposition and chronology of forts and forces.
- Forts in their landscapes, to foster a view of the fort as a node in a wider, interlocking set of landscapes, rather than focusing on the fort alone.
- Supplying the army, to consider the important issue of logistics in sustaining the army of conquest and occupation.





- Changing worlds, to examine the evidence for the experiences of daily life for all of the peoples of the frontier and how they all influenced, and were affected by, Roman military policy (a deliberately broader view than more traditional "Roman and native" perspectives).
- Roman Scotland in the Roman world, to stress opportunities where frontier or Empire perspectives will inform and benefit Scottish research, and where Scottish material can have an enhanced relevance and a wider impact in an international context.

Research and methodological issues

 A final section to focus upon methodological, theoretical and intellectual developments that will assist the innovative archaeological interpretations of the Roman presence in Scotland outlined above.

This research can only proceed in the wider context of the British northern military zone and broader studies of the Roman frontiers elsewhere in the World.

This document should be linked to more detailed frameworks for particular areas and sites. In particular, the value of a research framework for the Antonine Wall has already been identified (Breeze 2007, 69), and it is hoped that the current document may provide a broad base from which such work may develop. Further background reading on Roman Scotland can be found in Breeze 1982, Maxwell 1989, Maxwell 1998, Keppie 2004b, Breeze 2006b; for the Antonine Wall, Hanson & Maxwell 1986, Hanson 2004, Keppie 2001, Breeze 2006a; for the connection to Iron Age communities, Robertson 1970, Macinnes 1984, Hunter 2001.



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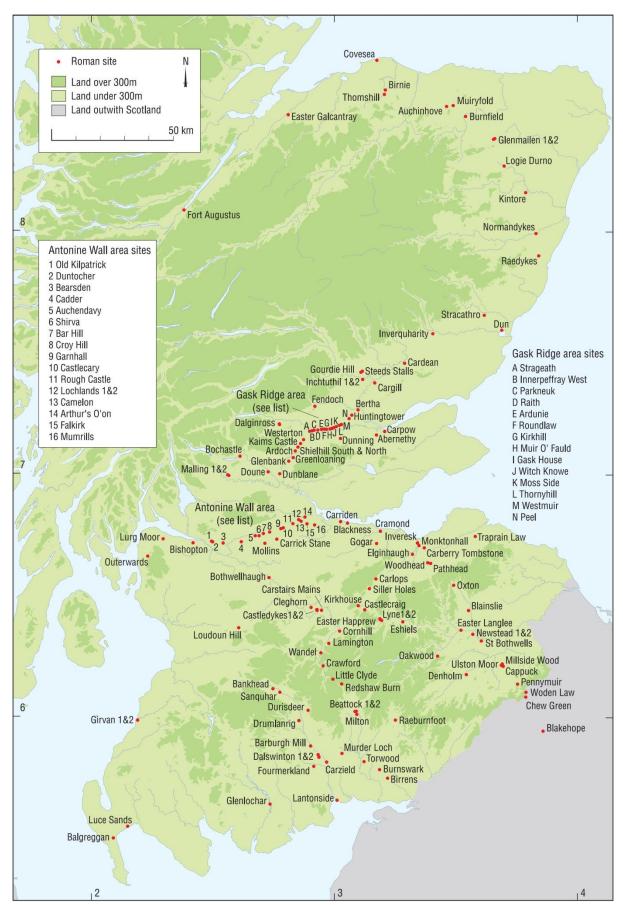


Figure 1: Distribution of main sites mentioned in the text © RCAHMS



#### 2. Changing Perspectives

#### 2.1 A broad view

While the area now known as Scotland lay on the periphery of the Roman Empire, and only episodically was incorporated within it, there was a relationship with Rome for over 300 years which can only be properly understood within the framework of wider Roman Empire studies.

The Roman invasions of Scotland can best be understood within the world of Roman politics, known primarily from textual sources, which saw the ebb and flow of Roman arms related to the interest of successive emperors. Vespasian, who took part in the invasion of AD 43, sent governors to Britain with specific instructions which appear to have included orders to impose the will of Rome over the whole island. These injunctions ultimately brought Agricola to Mons Graupius in the year 83. The personal disposition of Antoninus Pius, who lacked military experience, has been related to the decision to abandon Hadrian's Wall and re-occupy southern Scotland in 139. Cassius Dio and Herodian, in their respective Histories both offer reasons for the campaigns of Septimius Severus from 208 to 211, including that the Emperor enjoyed campaigning and that he wished to take his sons away from the flesh- pots of Rome.

Events elsewhere also might have an effect on activities in north Britain. Roman defeats on the Danube in the 80s led to the withdrawal of about a quarter of the army of Britain and the abandonment of the Flavian conquests of

Agricola. A requirement to send reinforcements to the Mauretanean War of the late 140s may have resulted in apparent delays in the building of the Antonine Wall, and it is possible that a general overstretching of resources may have lain behind the decision to abandon this frontier in the 160s. The death of Severus at York in 211 led to the abandonment of his conquests and the return of his sons to Rome.

It was, it would appear, always the advent of trouble on the northern frontier which brought the Emperor to Britain. Hadrian's visit in 122 followed unrest in Britain, though whether that led directly to the building of Hadrian's Wall is another matter. Severus came following warfare and, arguably, with the intention of completing the conquest of the island. Constantius I with his son Constantine came to fight the Picts in 305; Constantine possibly visited again later; and his grandson Constans came to Britain in 342/3 probably because of trouble on the northern frontier.

Roman Scotland was also part of a wider trading network. Pottery came to the northern frontier from Gaul as well as southern Britain. Arms, armour and other items of equipment were imported over long distances to the northern frontier. A good deal of food might have been grown locally but, together with wine, much was also imported from various places, including the Mediterranean.

Table 1: Table of Roman Dynasties, Emperors and notable events

Dynasty	Emperor	Events / people
Flavian AD 69-96	Vespasian AD 69-79 Titus AD 79-81 Domitian AD 81-96	Flavian invasion c.78-86 (Agricola as governor c.77-84)
Adopted emperors AD 96-138	Nerva AD 96-98 Trajan AD 98-117 Hadrian AD 117- 138	Unrest on northern frontier; building of Hadrian's Wall 119AD onwards



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Antonine	Antoninus Pius	Antonine invasion c. AD 139-160s
AD 138-192	AD 138-161	Abandonment of Antonine Wall during 160s?
	Marcus Aurelius (& Lucius Verus) AD 161-180	Wars under Commodus
	Lucius Verus Commodus AD 180-192	
Severan AD 193-238	Severus AD 193-211 Caracalla AD 211-217	Severan campaigns 208-211

#### 2.2 Antiquarian research

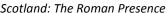
The study of Roman Scotland may be said to have started in the 16<sup>th</sup> century with the first modern written accounts and the recording of inscriptions and sculpture (such as the Inveresk altar recorded in 1565; Moir 1860, 4-7; RIB 2132; or the works of Hector Boece (1527) and George Buchanan (1582)). The literary sources, and in particular Tacitus' Agricola and the quest for Mons Graupius, framed much of the early discourse (see Maxwell 1990), a trend which has persisted in some quarters to this day. The 18<sup>th</sup> century saw the heyday of antiquarian research with Alexander Gordon and John Horsley (among others) describing the remains and William Roy mapping and planning the surviving earthworks and occasionally buildings (Gordon 1726; Horsley 1732; Roy 1793); among 19<sup>th</sup>-century works, Robert Stuart's Caledonia Romana may be singled out as a valuable synthesis (Stuart 1845; 1852).

#### 2.3 Early Archaeological work (1890-1945)

While there had been some precocious excavations, such as the exploration of the Duntocher bathhouse in 1775 (Keppie 2004a) or Adam de Cardonnel's 1783 work on the Inveresk hypocaust (de Cardonnel 1822), the era of scientific archaeological research did not commence until the 1890s. In 1890 the

Glasgow Archaeological Society set out to determine if the Antonine Wall really was constructed of turf, while the Society of Antiquaries of Scotland sponsored a series of excavations at forts, fortlets and towers along its course. Both societies continued to sponsor excavations during the inter-War years. The work was inevitably of its time, but the techniques and interpretations stood comparison with those of wider Roman scholarship, and in some cases (notably Curle's publication of Newstead; 1911) greatly surpassed equivalent undertakings elsewhere in Britain.

This period also saw significant works of synthesis. In 1911, Sir George Macdonald published The Roman Wall in Scotland, the first modern treatment of the Antonine Wall, and undertook research excavations in order to help check the line of the frontier; this was updated in a second edition (1934). The sculpture and inscriptions in the Hunterian Museum were published (J Macdonald 1897), as were the first of a continuing series of coin (Haverfield 1899, 159-168; Macdonald 1918). Research also began in earnest on the impact of the occupation on indigenous societies, notably with James Curle's magisterial corpus of Roman finds non-Roman sites (Curle





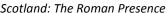
2.4 The modern era and its research strategies

There have been several attempts to produce a research agenda for Roman Scotland from 1948 onwards (summarised in Richmond in Hawkes & Piggott 1948, 56-62, 100-4; Hanson & Breeze 1991; Barclay 1997, 31-2). A fundamental requirement of the earliest such agenda was refining the dating of the periods of occupation and understanding better the nature of the occupation and the internal arrangement of forts. This was the impetus for the Scottish Field School for Archaeology's work on the forts of Birrens, Cardean, Castledykes and Strageath intermittently from 1951-1986 (Robertson 1964; 1975; Woolliscroft & Hoffmann 2006, 158-164; Frere & Wilkes 1989). The agenda has subsequently developed, with a growing appreciation of the need to know more about civil settlements and the impact on the local population of their existence. As knowledge accrued about the details of the building history of the Antonine Wall, new models of its form, purpose, chronology and development have been proposed and tested.

The advent of new techniques and knowledge allowed the agenda to be expanded. One of the most important developments was the expansion of aerial survey (see below), but palynology, was also important in allowing the exploration of the impact of the army on the landscape. Geophysics has made a more variable contribution, with poor results along the Antonine Wall in locating activity around forts (even where this was known from other evidence), but considerable success in revealing plans of forts and their surroundings in Bradford University's work at Newstead, the Roman Gask Project's work on forts north of the Forth-Clyde line, and Time Team / work at Drumlanrig (R F J Jones, pers comm; Woolliscroft & Hoffmann 2006; Hunter 2005, 401-2). There is also ongoing survey of the fort at Dalswinton, Bankhead by the University of Glasgow as well as collaborative survey work between the University of Glasgow, RCAHMS and Römisch-Germanisch Kommission at Dalswinton, Bankfoot and Ward Law camp.

The most influential, concerted and sustained campaign of research was that conducted by J K St Joseph of Cambridge University through his aerial survey programme, which was augmented by selective excavation to test the evidence of the photographs. The distinctive appearance on plan of Roman military sites meant that they could readily be identified by aerial survey, the pioneers of which were mostly Roman archaeologists. Early aerial survey was undertaken by O G S Crawford, archaeological officer with the Ordnance Survey in the 1930s, with the mantle passed to St Joseph in the 1940s. From 1976, RCAHMS commenced aerial survey under the direction of Gordon Maxwell. This resulted in the discovery of camps, forts, fortlets, towers and roads (Crawford 1930; 1939; St Joseph 1951; 1955; 1958; 1961; 1965; 1969; 1973; 1976; 1977; Maxwell 1983; 1984a, 1984b; Maxwell & Wilson 1987; see Jones 2005). St Joseph sought to relate individual camps to campaigns, while on the Antonine Wall he revolutionised knowledge with the discovery of camps and fortlets. Since Maxwell's retirement in the 1990s, aerial survey has been continued by RCAHMS, although rarely targeted specifically to Roman sites; the Roman Gask project have continued Romanfocused flights north of the Forth.

A more geographically-oriented research campaign by RCAHMS has sought to improve knowledge of Roman monuments within each county it surveyed; until the 1980s this included some excavation work to test site function and chronology. Scrutiny of vertical air photographs taken by the Royal Air Force and the Ordnance Survey for the production of county inventories led to the discovery of several more sites (eg. Oakwood: Steer and Feachem 1954; RCAHMS 1957). Operating more behind the scenes, Historic Scotland sought to maintain and develop the research agenda (e.g. Barclay 1997), and to use the money and influence at its disposal to ensure the survey and excavation of appropriate





sites. This led to major excavations and subsequent research, including Duntocher, Barburgh Mill, Bar Hill, Croy Hill, Camelon, Bearsden, Elginhaugh, and Inveresk. Within local authorities, Falkirk is notably proactive in seeking to discover more about the Antonine Wall (e.g. Bailey 1994; 1996).

Little active rescue work or research excavations are now undertaken directly by Historic Scotland. The protection afforded to Roman sites through scheduling has resulted in less rescue archaeology in the interiors of military sites. However, since many such sites lie under or near modern conurbations or development zones, continuing development leads to regular, generally small-scale interventions in the environs of forts, while large-scale road and housing schemes have led to the investigation of significant swathes temporary camps at Monktonhall (Inveresk) and Kintore (Hanson 2002a; Cook & Dunbar 2008). A major advantage of developer-funded archaeology has always been the nature of the work leading to fortuitous discoveries (for instance in a greater understanding of the environs of Cramond and Inveresk forts; e.g. Bishop 2002a, 2002b; 2004; Cook 2004; Britannia 35 (2004), 269; Britannia 42 (2011), 333-4, 441-4; Leslie forthcoming; Masser 2006).

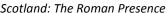
In recent decades, a few projects have sought to look at broader regional pictures. The Roman Gask project has re-evaluated the Roman and contemporary indigenous landscape north of the Antonine Wall through a combination of aerial and geophysical survey, field-walking and excavation (eg Woolliscroft 2002a; Woolliscroft & Hoffmann 2006). The Bradford University/Borders Region Newstead project had an ambitious research design to look at the interaction of Rome and the local population (Jones 1990); publication is awaited.

In the higher education sector, Glasgow University has played a significant role through publication, excavation and its support of research at doctoral and post-

doctoral level; work at Edinburgh University has focused on sites relating to the indigenous population. Other Scottish universities have no recent involvement in the study of Roman Scotland. The National Museum has adopted a proactive role, supporting research at Newstead in order to contextualise its existing major collection from the site, and investigating the find spots of new discoveries such as the Birnie coin hoards (e.g. Manning 2005; 2006a; Hunter and Keppie (in press); Hunter 2007a, 2007c).

There have been some significant works of synthesis. In 1949, O G S Crawford published Topography of Roman Scotland North of the Antonine Wall, bringing together antiquarian references and archaeological research; further overviews and general works have collated and discussed the wider story of Roman Scotland for academic and wider audiences (these include Hanson 1991a; Maxwell 1989; 1998; Woolliscroft & Hoffmann 2006; Breeze 1982; 2006b; Fraser 2005; Robertson & Keppie 2001). South-western Scottish work was pulled together by Miller (1952). Inscriptions have been well-served by British-wide corpora (RIB I, II, III) and sculpture by the Scottish volume of an international series (Keppie and Arnold 1984); the Hunterian Museum's collection of inscriptions sculpture and has subsequently updated (Keppie 1998). A major survey of temporary camps has very recently appeared (Jones 2011), while Roman finds from indigenous sites have seen fresh syntheses (Robertson 1970; Hunter 2001, 2007a, 2010; Wilson 1997, 2001, 2003, 2010).

Some items on previous agendas remain elusive, such as the location of civil settlements outside forts. There is now perhaps a greater appreciation of the intractable difficulties in answering some research questions owing to the nature of the archaeological evidence. The dating of temporary camps is notoriously difficult, and many remain without any so far retrieved dating material. The paucity of artefacts on the indigenous settlements has traditionally





rendered it difficult to determine any effect of the Roman occupation on the local inhabitants, although substantial progress has been made, and the range of approaches and perspectives expanded.

In summary, there has been no concerted attempt to produce and follow a single research agenda. Rather, the research questions have widened as more techniques and knowledge have become available and thus the scope of individual projects have also expanded. The role of the relevant central and local government bodies has been to comprehend these widening horizons and ensure that threatened sites are examined within the ever-growing research framework. Much research has also depended upon the personal interests of individuals working in Scotland. In the past, the study of Roman Scotland has been primarily focused on its military remains, but this has gradually

widened to encompass investigation of the contemporary indigenous population, as well as seeking to use the evidence for Roman Scotland to help the study of the periods both before and after, providing a dated horizon which has aided and affected later prehistoric studies and offering a vital facility for testing models, as John Barrett has noted (1997b).

The study of Roman Scotland continues to develop, with changes in concepts such as 'Romanisation' and 'resistance', with the result that interpretations have become more subtle. In particular, the Roman army is now viewed as occupying a more proportionate place in a landscape which was principally peopled by indigenous farming societies. Understanding of the period is subject to all kinds of gaps and problems which with the richness of the data-set promise very considerable labour and, hopefully, rich the rewards for future researcher.

Table 2: key topics identified in previous research frameworks. Note that Richmond's study was of the broader military zone, not just Scotland, while Barclay (which drew heavily on Hanson & Breeze) was restricted to rescue archaeology.

Richmond in Hawkes & Piggott	Hanson & Breeze 1991	Barclay 1997
1948		
<ul> <li>Investigate type-sites for</li> </ul>	<ul> <li>Study of annexes and vici</li> </ul>	<ul> <li>Excavation of temporary camps</li> </ul>
particular types of unit.	(especially Inveresk).	under development threat.
Distinguish Agricolan from earlier	<ul> <li>Investigate military logistics &amp;</li> </ul>	Likelihood of fortuitous
sites.	supply.	discoveries on Antonine Wall
	- Capp.,,.	emphasising the need for
Investigate the nature and extent	• Excavation of a fortlet (especially	developmental control and
of the Flavian 'blockade of	first century).	invigilation?
Highlands'.	mst century).	invigilation:
	<ul> <li>Further examination of Camps –</li> </ul>	<ul> <li>Further investigation on Gask</li> </ul>
<ul> <li>Excavation at Inchtuthil.</li> </ul>	further aerial photography and ridge frontier.	
	morphological study; corpus	
• Investigate the nature of late	required; little value to excavation	<ul> <li>Further investigation of annexes</li> </ul>
Flavian / Trajanic arrangements in	of interiors.	and civil settlements.
south Scotland.		
<ul> <li>Progress the study of vici</li> </ul>	<ul> <li>Investigate the nature of</li> </ul>	<ul> <li>Investigation of the relationship</li> </ul>
	intervals on frontier works e.g .	of military construction and
• Investigate the relationship of	Gask towers, fortlets on Wall.	occupation to the local
native villages to forts.		environment.
	<ul> <li>Examine the impact of the</li> </ul>	
• Investigate the western flank of	military occupation on indigenous	Investigation of the relationship
the Antonine Wall.	population.	of the imported military presence
		to the indigenous population;
Investigate the nature of the	• Examine the impact on	evidence of behavioural change, or



#### Scotland: The Roman Presence

Antonine occupation beyond the Wall, and possibility of 'outer limes' focused on the Gask Ridge.

- investigate the nature of temporary Severan occupation.
- Define the scope of the late third / fourth century frontier zone.
- Pursue the study of road systems.
- Investigate the sources and distribution of supplies.
- Locate and investigate Military cemeteries 'a much-neglected resource' for 'social information and ... questions. of diet and physique'

landscape – studies of pollen, macrobotanical plant and bone remains.

- Encourage finds work to include native artefacts located on Roman sites; enigmatic types such as bangles and button-and-loop fasteners; more quantified studies.
- Need for comparative regional studies e.g. either side of frontiers.

of re-use of Roman sites and materials.

- The generation of valuable case studies, like those executed in the Esk valley and at Newstead and around Traprain Law.
- 'Refining of the artefactual database' by technological, typological and contextual studies.

#### 2.5 Research recommendations

 The historiography of the study of Roman Scotland is a subject worthy of attention, especially in relation to wider intellectual approaches in Roman studies, and its relation to techniques and concepts in prehistoric and later archaeology. This would assist in understanding the biases in knowledge, which is based heavily on the work of earlier scholars.



#### 3. The time and place of Roman Scotland

#### 3.1 Introduction

The chronology of the Roman occupation and the distribution of Roman military installations has been the major focus for research in the last 50 years; the other themes under consideration in this research framework have only developed over the last 20 years or so. Yet, despite the work that has been undertaken, the chronology and the spatial extent of Roman influence in Scotland are still issues for debate and both have seen several research projects in recent years.

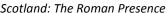
Chronologically-specific aspects are discussed below, but there are also wider systematic biases, particularly in the retrieved distribution of sites. As aerial survey and photography have been a key element in locating Roman sites (St Joseph 1976; Jones 2005), the relative insensitivity of much of western, pastoral Scotland to this technique has presented a major problem, although this is partly due to survey biases. In particular, the lack of sites in SW Scotland must be misleading when the road network, occasional temporary camps, and stray finds indicate more of a presence than is currently understood (e.g. Wilson 1995, 1999). Cowley's identification of a fortlet at Kirwaugh in Wigtownshire from old aerial photos (Britannia 42 (2011), 336, fig 9) shows that aerial survey in favourable conditions may yet reveal these, but other techniques should be actively applied. There is a great potential value in using stray finds to suggest site locations (e.g. Keppie 1990); here, metaldetecting finds should be exploited, as should fieldwalking. There is also great potential in engaging local community groups, with knowledge of the local area, in such fieldwork. Predictive modelling approaches could also usefully be explored to guide resources to particular locations.

SW Scotland remains a large gap in the distribution of sites and would benefit from more sustained aerial survey, fieldwalking, and pursuit of stray / metal-detecting finds.

Keppie (1990) notes other areas worthy of attention; for instance, finds or road lines indicate that installations may be expected around Crichton (Midlothian) and Ruberslaw (Borders). Bishop (2004, 175-6, fig 116) suggests a road line in East Lothian, E of Inveresk, the evidence for which is unpublished.

#### 3.2 Questions of pre-Agricolan activity

Much knowledge of the conquest and garrisoning of North Britain in the Flavian period was originally derived from Tacitus' biography of his father-in-law, Agricola, governor of the province from AD 77-84 or 78-85- either from AD 77 or 83 (e.g. Birley 1999a; Ogilvie & Richmond 1967; study of this by classicists continues to provide fresh possibilities, e.g. Campbell 2010, 84-7). However, earlier writers indicate some knowledge of the geography of Scotland (Breeze 2002a). This includes the existence of Orkney, Shetland and the Hebrides, as well as that *Thule* lay even further north. The interrelationship between the historical and archaeological data was discussed and analysed in the 1980s, and a broad consensus achieved (Breeze 1982, 42-67; Hanson 1991a). In the last two decades there has been considerable debate about the role that Agricola played in the conquest of the north, linked primarily to the results of extensive fieldwork on the Gask Ridge (below), with various publications proposing a revised dating (notably Caruana 1997; Shotter 2000; Woolliscroft and Hoffmann 2006). Many of the arguments relate to the discovery of early finds and their role in dating the sites in which were found. A conference and subsequent monograph has made the current lack of consensus apparent (Breeze et al 2009). There is still considerable debate about the nature of the process of conquest (campaigning vs. fort construction), the significance of structural phasing within such





forts and other structures, and the character of the archaeological dating evidence.

There are two literary references to pre-Agricolan military activity (Pliny NH 4, 102; Statius Silvae 5.2, 140-9), both unspecific and open to various interpretations, but sufficient to indicate that there was some penetration into Scotland before Agricola (listed in Breeze 2009; for a handy compilation of translated sources, see Ireland 2008). In addition, ancient geographers provide snapshots of knowledge, for example, identifying that Britain was an island (e.g. Breeze 2002a); the main source of evidence is Ptolemy's Geography, from the mid 2<sup>nd</sup> century AD, although some of his data was gathered from earlier sources (Rivet & Smith 1979; Mann & Breeze 1987).

The dendrochronological dating of the fort at Carlisle to AD 72 (Caruana 1992) shows pre-Agricolan activity on the doorstep of modern Scotland. In the absence of similar dating evidence from other sites, the claims of those asserting an 'early' conquest date are unlikely to be readily assuaged. Recent geophysical work at Dalswinton (Bankfoot) suggests that the postulated early vexillation fort there is actually a camp (Hüssen et al 2009). Early finds have been identified from other sites, but in such small numbers that the evidence is as yet unconvincing; date of production can be divorced by some distance from date of deposition. The only other fort site with a potential claim to be an early foundation (on the basis of the coin evidence) is Newstead (Shotter 2000, 197). However, excavations at Red House Corbridge (Hanson et al 1979) and Elginhaugh (Hanson 2007), both on Dere Street (as is Newstead), do not suggest foundations earlier than Agricola. Indeed, a probable foundation deposit at Elginhaugh provides a terminus post quem for its construction of AD 77-8.

The ongoing debate is a valuable reminder of the need to keep an open mind over even the supposedly solid foundations of the period, although the verdict at present for the revisionists seems to be 'not proven'.

The most likely 'early' sites are going to be camps, which are notoriously difficult to date without excavation; large-scale extensive geophysical survey can highlight features in their interior, such as ovens, which could be targeted. Trial excavation at Dalswinton, Bankfoot, might serve to confirm the geophysical results, while geophysical survey and trial excavation of the enigmatic enclosure to the east of the camp at Ardoch would help to confirm its identification.

Full assessment of early work at sites such as Loudoun Hill and Milton would be beneficial in exploring potentially early activity in Scotland.

Any possibilities of obtaining dendrochronological dates from secure contexts should be seized.

#### 3.3 Flavian Scotland (c. AD 77-86/90)

With the exception of the dating of the first incursions (section 3.2), the broad outlines of the extent and chronology of Flavian Scotland are generally accepted. However, there remain a number of issues of debate and uncertainty. Knowledge of the distribution of temporary camps is far from complete and their confident attribution to particular campaigns remains a matter of speculation rather than hard evidence (Jones 2006a). Similarly, knowledge of the site of the battle of Mons Graupius remains elusive (section 4.1). Despite some assertions to the contrary (e.g. Gregory 2001), there is no evidence of fort building north of the Mounth. The postulated sites at Thomshill and Easter Galcantray lack the distinctive morphological characteristics of Roman military works and have not provided any artefactual support for a Roman date, but questions remain over the distribution of sites in the south-west of Scotland and the existence of Flavian precursors to Antonine Wall sites.

Considerable survey and excavation has been undertaken over the last decade or so on sites



associated with the Gask Ridge (e.g. Woolliscroft 2002; Woolliscroft and Hoffmann 2006). In addition to challenging the dating of the conquest of the area, the work has led to a re-assessment of the function of the chain of towers that accompany the road. Opinion is currently divided between those who follow

the view that this represents an artificially-defined frontier (e.g. Hanson 1991b), and those that see it as simply a controlled supply line to the legionary fortress at Inchtuthil (e.g. Dobat 2009), or part of a wider frontier zone (Woolliscroft & Hoffmann 2006).



Figure 2: 1st century AD Flavian temporary camps (later first century AD) © Crown Copyright Historic Scotland, with the addition of Glenluce © ScARF



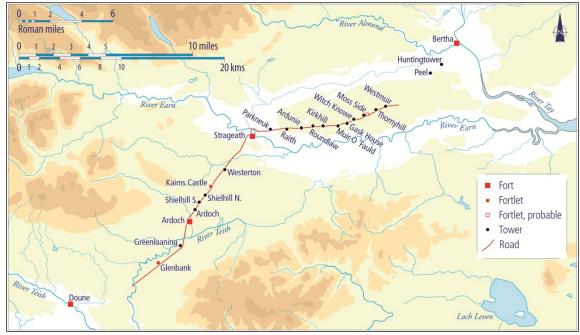


Figure 3: Sites along the Gask ridge © Crown Copyright Historic Scotland

Inchtuthil itself is the key site of Flavian Scotland, and one of international importance as an early Imperial fortress unencumbered by later developments. The excavations of Richmond and St Joseph reconstructed a seminal plan (Pitts & St Joseph 1985); recent geophysical survey (DES 2009, 145; Britannia 41 (2010), 347, fig 2 Reference), combined with aerial survey data, will serve to put these extrapolations from small trenches onto a firmer basis. Our horizons should not be limited to the plan of the fortress alone; from the early excavations comes a small but significant (and incompletely published) assemblage of material beyond the headlinegrabbing massive nail hoard, while recent survey work has expanded the material range and looked at the setting of the fortress (Britannia 41 (2010), 347-8; 42 (2011), 328330). Its significance comes both from its tight dating and its information on legionary supply and equipment at the time; further study of the existing material and renewed excavation would be of value far beyond Scotland.

Evidence points to a staged withdrawal from Scotland, with the forts north of the Forth-Clyde line and those south of it as far as Newstead abandoned by AD 86-87, with most of the remaining southern forts shortly thereafter. No Scottish forts show any certain Trajanic occupation, although some of the southern forts such as Broomholm may not have been abandoned until the early Trajanic period. With the construction of Hadrian's Wall in the 120s, Birrens (Dumfriesshire) was established as an outpost fort (Robertson 1975) at this time.





Figure 4: 1<sup>st</sup> century AD Flavian forts and fortlets © Crown Copyright Historic Scotland

Inchtuthil represents a key site that would reward further study both in the field and in the archive. Assessment and publication of the Broomholm excavations would also considerably advance knowledge of Flavian Scotland (publication is in progress). Geophysical survey and fieldwalking at the fort of Ladyward¹ would also provide useful information, as the site lies at a key position for the SW, but its chronology is unknown.

<sup>1</sup> Due to the lack of chronological dating, Ladyward has not been included on any of the distribution maps.

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Figure 5: Cropmarks of the Flavian legionary fortress at Inchtuthil, Perth & Kinross. SC972093 © RCAHMS

#### 3.4 Antonine Scotland (c. AD 139-165)

Upon Hadrian's death, Antoninus Pius seems to have taken a prompt decision to reconquer southern Scotland. This has been seen as the desire of an Emperor with limited military experience to achieve an easy military victory, but growing Hadrianic evidence for troubles on the northern frontier suggests that there may equally have been pressing local reasons for such a campaign (Gillam 1958, Jobey 1978). The campaigns were underway by 139/140 and victory celebrated in 142. A network of forts was re-established, augmented by a greater number of fortlets, covering similar ground to that held in the Flavian period, but not extending quite so far to the north. Many forts reused Flavian sites, but others were new foundations (such as at Inveresk) or shifted slightly from their Flavian precursors (e.g. Lyne). The most striking outcome of the campaign was the Antonine Wall, the premier Roman monument in Scotland (see 3.5).

Traditionally the Antonine occupation in Scotland was split by scholars into two phases with a period of unrest in the middle (Antonine I and II). This has been convincingly dismissed by Hodgson (1995), with most of the evidence representing site-specific local variation. There are, however, grounds for suggesting a phase of refortification and consolidation in Dumfriesshire, where various strands of evidence do indicate a period of unrest (Hodgson 2009; Wilson 2003), or certainly increased activity for some reason, as evidenced by a possible increase in the numbers of temporary camps in this area which may be Antonine in date (Jones 2009b), and the relative density of fortlets in the area. It is possible that the much-debated siege works around Burnswark hillfort relate to this phase (see section 4.1).

The occupation and operation of the Antonine Wall required the creation of outpost forts up to the River Tay (at Camelon, Ardoch, Strageath and Bertha). Precisely why they



were deemed necessary remains a matter of interpretation, though it may be no coincidence that the installations precisely mirrored those of the first century. It certainly indicates that the Antonine Wall was not the limit of direct Roman occupation and control. The chain of towers (the Gask system) running along the Roman road seem to have been used only in the Flavian period, although dating evidence from them is scarce. The road itself is undated (see 3.8 below). There are suggestions from stray finds that some of the

forts, including Dalginross and Cargill, may also have seen later occupation (Woolliscroft 2002b & pers comm); this merits further work but this remains to be resolved and emphasises the potential limitations of the existing picture. Our current knowledge base requires improvement in this area and hypotheses formulation and further testing.

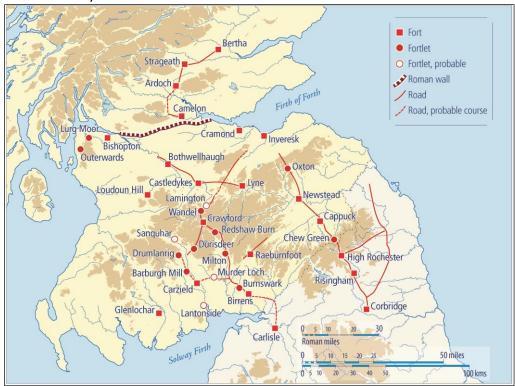


Figure 6: Antonine permanent forts 2nd century AD © Crown Copyright Historic Scotland

The identification of temporary camps of likely Antonine date has proved even more difficult than those of potentially Flavian or Severan date, so the extent of campaigning remains speculative, though the objective appears to have been more limited (Jones 2009a). No temporary camps north of the Forth-Clvde isthmus have vet confidently assigned to the Antonine period, but recent work at Innerpeffray West, Perthshire a 63-acre (25-ha) camp previously thought to have been of Severan date (St Joseph 1973), indicated that the probable road was later than the camp (Britannia 39, 2008, 274). This raises the intriguing possibility that these camps may be earlier in date and were possibly used in the Antonine, or even Flavian, period.

There is still disagreement about the nature of the Roman occupation of southern Scotland (and northern England) and whether it was opposed by the local population to the extent of stimulating an uprising or the need to impose a special control. Further study of the destruction deposits as well as the nature of the military occupation is therefore important. The reasons for, and the chronology of, the withdrawal remain a matter for debate.



Further work at Bertha is required to fully understand its layout and chronology, and a better understanding of the defences at Ardoch is also needed. More work is also required on temporary camps to provide for their independent dating, along with more detailed work at Dalginross and Cargill in order to contextualise the stray finds located there. Continuing investigation and assessment of other northern forts is necessary in order to elucidate the possibility

of the existence of later phases. The publication of the excavations carried out at Camelon (see Table 4: major unpublished Roman excavations) would considerably advance knowledge.

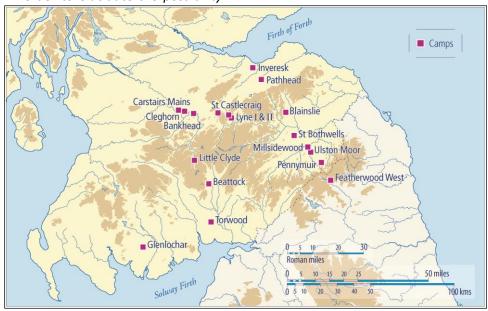


Figure 7: Antonine temporary camps (mid-2nd century AD) © Crown Copyright Historic Scotland

#### 3.5 The Antonine Wall

The Antonine Wall has seen considerable interest in recent years, leading up to its inscription as a World Heritage site in 2008 (and see 4.2). A programme of geophysical survey has provided some additional information about forts and the military way, although much is still to be learnt. A study of the coarse ware pottery found along the Wall identified styles in use in North Africa, leading to the suggestion that troops from this area arrived on the Wall after the Mauretanian War (Swan 1999). An alternative historical sequence has been proposed for the construction and development of the Wall, but this is not fully reconcilable with an earlier proposal relating to the timetable for the addition of annexes to forts along it (Bailey 1994). Indeed, the timetable for both the

building and abandonment of the Wall are subject to much debate (e.g. Breeze 2006a, 99-102).

The Antonine Wall Management Plan (Breeze 2007) identified the need for 'a research programme for the Antonine Wall within its international framework'. Such a detailed consideration lies outwith the scope of this Framework document, but it is hoped that some of the issues raised here will be of relevance to Wall studies, and that following on from this wider Roman Iron Age study, a more detailed research framework for the Wall will be created. Perhaps the key point to stress here is how many issues remain ripe for research.



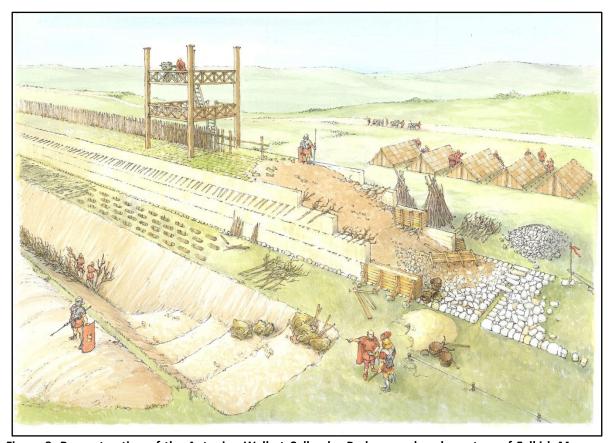


Figure 8: Reconstruction of the Antonine Wall at Callendar Park, reproduced courtesy of Falkirk Museum and M. J. Moore DA FSA Scot

The crucial date relating to the end of the Antonine Wall system is an inscription from Hadrian's Wall recording rebuilding in 158 (RIB 1389; Hodgson 2011). This indicates an intention to reoccupy Hadrian's Wall and abandon the Antonine Wall, and is supported by the continuing rebuilding programme on Hadrian's Wall through the 160s (Breeze & Dobson 2000, 131-3).

The latest dated coin from an archaeological context on the Antonine Wall is a worn coin of Lucilla from Old Kilpatrick, struck between 164 and 169 (Robertson 1978, Abdy 2002, 196, 211), though there are later chance finds. It is possible therefore to envisage a significant period when there was activity on both frontiers, with one being de-commissioned and the other repaired/rebuilt.

The decommissioning of the Antonine Wall involved the removal of the distance slabs from their stands and, it would appear, their burial in pits. Other inscriptions might have

been dropped into wells, as at Bar Hill. Fort buildings were demolished and in some cases burnt; ramparts were slighted. There was, however, no attempt to flatten fort ramparts or the Wall itself, as its survival and visibility as an earthwork demonstrates. Reasons for the withdrawal remain the matter of debate.

Some of the detailed questions which remain unanswered about the Antonine Wall at this time include: (a) the location of the eastern terminus; (b) in places, the exact course of the Wall where no longer visible; (c) the purposes of the enclosures, expansions, and platforms attached to the rear of the rampart; (d) whether or not there were fortlets spaced 1 Roman mile apart all the way across from the Forth to the Clyde; (e) and if towers and/or a Wall-walk existed along the length of the Wall; (f) whether Auchendavy or Bar Hill was the primary fort in this wall sector; (g) what were the social and environmental impacts of construction of the Wall. In addition, north of the Wall, and contemporary with it, there was



a corridor of forts linked by a well-built road extending up to and beyond the River Tay. This would seem to be more than a superficial chain of outpost forts, and raises the question: just where was the boundary of the Roman province in Antonine times?

Publication of the excavations at Bearsden, Croy Hill, Falkirk, and Mumrills (see Table 4) would be extremely beneficial, as would analysis and publication of the geophysical survey results obtained for the World Heritage Site nomination process. Further analysis of the finds from excavated sites along the Wall is recommended, building on the work undertaken by Hartley (1972), Gillam (1970) and Swan (1999), for instance to study life on the frontier, compare the nature of finds from

different types of site (e.g. primary c.f. secondary forts), and use their potential as a dating horizon of much wider relevance to Roman studies.

Fieldwork issues include the need for more work at Auchendavy to determine whether it or Bar Hill is likely to have been a 'primary' fort; to address the perennial question of the eastern terminus of the Wall; and whether there are further outpost forts or fortlets to the east (eg at Blackness) to strengthen the known 'screen' along the coast.

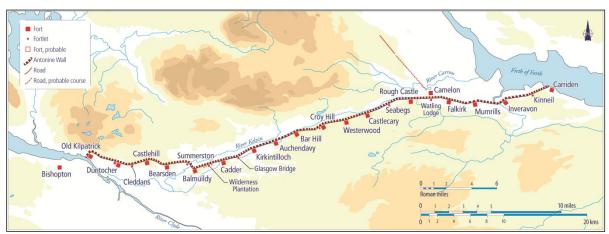


Figure 9: Antonine Wall with forts and fortlets © Crown Copyright Historic Scotland

#### 3.6 From the end of the Antonine Wall to the Severan invasions

The new frontier arrangements were different from those in place during the first phases of Hadrian's Wall (Breeze 1982, 136-40). North of the Wall there were still three outpost forts to the west, at Birrens in SW Scotland, Netherby and Bewcastle in England. Now, complementary however. there were arrangements to the east. Forts remained in occupation along Dere Street running north from Hadrian's Wall at Portgate. These appear to have extended as far north as Newstead and may have included Cappuck, and perhaps Inveresk (Breeze, in press; Bishop 2004, 185). These most northerly forts appear to have been abandoned in about 180. It is likely that

the frontier unrest of that time resulted in a reappraisal of Hadrian's Wall and the forts to its north. While these changes are often dated to the early third century and are regarded as a re-organisation of the northern frontier by the Emperor Caracalla, there are indications that some arrangements were already in place before that time, and it is possible therefore that they date to the post-180 settlement.

The post-180 arrangements included the basing of a thousand-strong mixed infantry and cavalry unit at Risingham and High Rochester on Dere Street with a couple of





'irregular' units. Scouts were probably also based at Netherby, called *Castra Exploratorum*, while a thousand-strong unit appears to have been at Bewcastle; Birrens was abandoned (Breeze 1982, 136-140). The purpose of these arrangements was presumably to allow the army to maintain watch over the lands well to the north of Hadrian's Wall.

There is debate over whether some sites continued in occupation through this period (such as Cramond, where Holmes (2003, 154-5) argues the excavated evidence shows no clear break in occupation). It is also increasingly plausible that there may have been new foundations at this time. The legionary base at Carpow has long been seen as a Severan foundation, but reappraisal of

both inscriptions and tiles from the site has been used to argue for suggested a Commodan foundation (RIB III, 3512-4; Warry 2006, 65-9). This would be, on current knowledge, a very isolated outpost, albeit one with good maritime connections, and if the interpretation is sustained raises questions about the nature of activity in Scotland at this time.

The sequences at the key sites of Cramond and Carpow, and the question of the end of Inveresk, need reappraisal as they are becoming critical to this period. A study of their pottery assemblages in the light of improved knowledge of the sequence on Hadrian's Wall at this date (from work at South Shields and Wallsend) would be very valuable.



Figure 10: Oblique aerial view of Carpow fort © RCAHMS



#### 3.7 Severan activity (c. AD 208-211)

The evidence for the Severan campaigns (Birley 1999b, 170-187; Breeze 1982, 128-136) comes primarily from literary sources, propaganda coin issues and the distribution of temporary camps, although the dating of these latter is less secure than often claimed. However, they broadly support a large army heading up Dere St to the Forth, reducing in size slightly when heading into north-east Scotland; the northern limit of campaigning is unclear, but the east-coast focus is notable, indicating where the problem areas were seen to be. The navy was clearly a vital element in the supply chain, as indicated by the rebuilding of (coastal) South Shields as a massive grain store, the reoccupation of (coastal) Cramond and the use (new or continuing) of the coastal fortress at Carpow. A string of denarius hoards of this general date up the north-east has traditionally been linked to the progress of the Severan army, but is better seen as a broader diplomatic phenomenon in the decades before and (to a lesser extent) after the invasion (Hunter 2007c).

A fresh study of this period with a broad perspective would be of benefit, looking at the invasions in a wider chronological context (from the late Antonine period), considering evidence from elsewhere on the northern frontier (such as the South Shields rebuilding, the enigmatic Vindolanda circular huts, and the evidence from York; Bidwell 1999, 73-8; 2009), reviewing the evocative propaganda evidence (not just the well-known coinage, but sculpture (e.g. Piggott 1968) and gemstones (e.g. Elliot & Henig 1999; Marsden 2011), and considering the effects on the local population; there are arguments for seeing this time as pivotal in the history of indigenous societies due to Roman political as much as military interference (Hunter 2007a).

Some workers (e.g. Whittington & Edwards 1993; Martin 1995) have suggested a dramatic impact on the local population tantamount to genocide; the evidence for this is not strong, but the question merits further work, especially to strengthen the palaeoenvironmental arguments of Whittington and Edwards substantially.



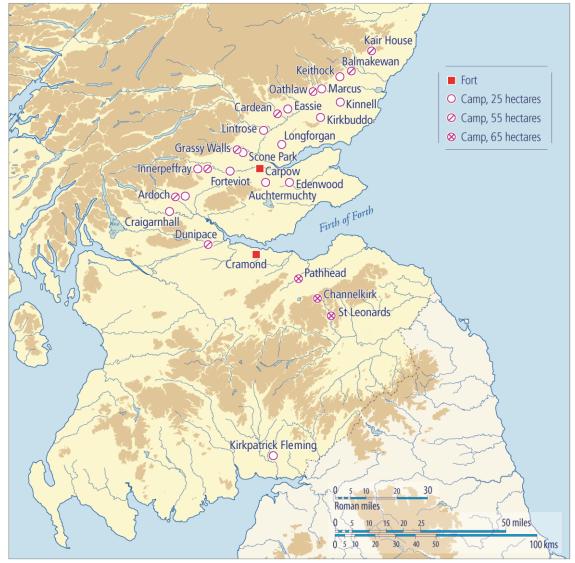


Figure 11: Severan camps and forts, adapted by ScARF from © Crown Copyright Historic Scotland.

#### 3.8 The road network

Roman roads had a lasting impact on the infrastructure of Britain, but the last systematic study of the Roman road network of the whole of Britain was undertaken by Ivan D Margary (1955; 3<sup>rd</sup> edition 1973). The Ordnance Survey Archaeology Branch produced detailed files of all known and speculated Roman roads from the 1950s – 1970s; these files are now held by RCAHMS and the information on them has been digitised but is not currently available through Canmore.

Since these studies, a number of surveys have looked at the road network in various areas of Scotland (eg. Allan Wilson's work in Dumfries

& Galloway – Wilson 1989; 1999; and that by Frank Newall and William Lonie in various parts of southern Scotland, regularly reported in *Discovery & Excavation in Scotland*; see also Lonie 2004). A limited amount of work has also been undertaken on the Military Way, the Roman road running to the rear of the Antonine Wall. Clarke (in press) shows the potential complexity and variety in the road system over time around key fort sites in his analysis of the roads around Newstead.

North of the isthmus, the Roman road is known running from Camelon, with a break in



the Forth valley at Stirling, to Ardoch, Strageath and Bertha on the River Tay.<sup>2</sup> This was a well-engineered highway and significant lengths remain in use; it has been subject to recent survey by the Roman Gask project (e.g. Woolliscroft & Davies 2002; Woolliscroft 2005). The line is accompanied by a chain of fortifications and towers and is regarded as part of a Roman frontier (Woolliscroft & Hoffmann 2006) or supply line (Dobat 2009). The road has produced no dating evidence, but is usually assumed to be contemporary with its forts, which were built in the later 1st century. This may now be less certain, however, as the road has been argued to post-date a camp at Innerpeffray West (see above), although there was no dating evidence to confirm that the relevant road surface was Roman in date.

There are antiquarian accounts of a route continuing the known road beyond the Tay to Strathmore, and recent air photographic traces may hint at corroboration (Woolliscroft, pers comm). There are also stub roads through the gates of a more northerly line of forts from near Loch Lomond to Strathmore, but no roads are known linking them to each other or the known line. No road is known to the legionary fortress of Inchtuthil, the key base of the entire 1st century occupation, although one is known from the fortress to the quarry and camp at Steeds Stalls, Gourdie, to the north. It is possible that future work may yield traces of a network of light track-ways to serve these sites.

In 2009, John Poulter published a monograph looking at the planning of Roman military structures in northern Britain, including a stretch of Dere Street from the Vale of York to Newstead (see also Poulter 2010). His fieldwork methodology has produced interesting results relating to the planning and layout of Roman roads and linear frontiers, and could be applied to other Roman roads in

Scotland. It provides insights into the direction and process of planning, the views which were sought from linear frontiers, and thus something of the motives behind them.

The question of bridges and other forms of river-crossing has seen very little attention (for exceptions, see Bailey 1996; Lonie in press).

A systematic overview of the road network in Scotland, considering all lines claimed as Roman, from aerial and ground survey and excavation evidence, is required. This should also consider the application of Poulter's methodology to other Roman roads in Scotland and the study of the post-Roman history and influence on known roads, and of any pre-Roman antecedents. Such an assessment would allow targeted aerial and field survey then to attempt to fill gaps.

The Gask Ridge road requires further assessment – can the current known road be dated? If it is 2<sup>nd</sup> century in date, there is still likely to have been a road between the 1<sup>st</sup> century fortifications and, as these have their entrances oriented on the known line, this may prove to overlie a Flavian predecessor. The fact that this has gone undetected suggests it was little more than a path that would have been easily ploughed out, raising the possibility that other early roads existed that have not been discovered because they were never upgraded.

<sup>&</sup>lt;sup>2</sup> We are grateful to Dr D J Woolliscroft for his most helpful advice on this topic.





Figure 12: Roman road at Whitton Edge in the Scottish Borders. The irregular quarry pits are often the best surviving indicators of a road line. © RCAHMS

#### 3.9 Water Transportation

The sea (and to a lesser extent the major rivers) and their potential for transport and supply are fundamental to understanding Roman Scotland. The fleet was critical in campaigning and the Agricola mentions their role in the initial conquest of Scotland and their famous circumnavigation of the country, while the Severan campaigns were equally dependent on maritime support (Agricola 25, 29, 38; Breeze 1982, 131-2). This is seen archaeologically in the placing of some temporary camps (such as Dun, near Montrose) to take advantage of maritime connections. Water transport was also critical during the occupations, as the quickest and most economical method of transporting bulk goods (Green 1986, 39-41). This is seen most clearly in the distribution of pottery (e.g. Gillam 1973; see section 5).

Despite this, knowledge of the maritime element of Roman Scotland is poorly

developed. Ports are hypothesised at such sites as Camelon, Cramond and Bertha purely on the basis of their positions (Martin 1992; Tatton-Brown 1980), although in some cases, as at Camelon, the diversity of pottery from the site supports this attribution. The question of feasible ports is closely related to reconstructions of sea-levels, estuary lines and the navigability of rivers, all of which may have changed significantly since the Roman period but topics which have seen only limited work (Tipping & Tisdall 2005, 444-7). Roman period wrecks in Scottish waters are as yet unknown.

Detailed palaeoenvironmental reconstruction of potential port sites and their likely access to the open sea might assist in confirming their putative maritime role, and also assist in the identification of the Roman shoreline and thus further areas to target for fieldwork and the



search for the sheltered water or deposits where Roman wrecks might survive).

Any opportunity to investigate a wreck site should be seized; this ties in with wider questions of the study of the maritime heritage, addressed in the ScARF Marine & Maritime document<sup>3</sup>.

#### 3.10 Late Roman activity

Scattered, brief, but nonetheless, explicit literary references make clear that the Picts (and other northern tribes) continued to be troublesome throughout the 4<sup>th</sup> century. Although they are archaeologically invisible, Roman campaigns into Scotland took place in AD 305, in 342-3 (probably in response to trouble involving the areani, or scouts), in 360, and 367-8 (possibly in response to the so-called barbarian conspiracy), and in 382 and the 390s (references all listed in Hanson 1978). The origin of the Picts has seen considerable debate (eg. Mann 1974; Hunter 2007a), and it is generally agreed that Rome had some ill-defined role in fostering the emergence of this new polity, whether accidental or deliberate. The details remain a cause for debate and much needed future research. (see 6.3 and 6.5).

The late use of Roman forts is still to be confirmed structurally, although there are late Roman finds from a wide range of sites to the furthest reaches of any earlier Roman occupation, primarily in the form of stray finds of pottery and coins. These have never been fully synthesised, but later Roman pottery Kintore, Cramond, Inveresk Newstead (Wallace 2008), and late Roman coins from sites such as Birrens, Cramond, Inveresk, Newstead and Bearsden (Robertson 1983, table 2; Bateson & Holmes 2006, 162) should be noted. It is likely that some of the temporary camps in Scotland date to these late campaigns, or were re-occupied during these campaigns, but such temporary occupation is less likely to leave evidence that

can be securely dated (Jones 2009a), although there are suggestions of such reuse from Kintore (Cook & Dunbar 2008, 351-3).

Coin evidence, in the form of hoards (e.g. Covesea, Fort Augustus and Balgreggan; Robertson 1978) and numerous stray finds, as well as the Traprain Treasure and a scattering of later Roman artefacts, attest contact with indigenous societies through the 4<sup>th</sup> century, though the precise character of that contact is a matter of interpretation (Robertson 1978; Hunter 2007a; Hunter 2010, arguing for the south-east of Scotland acting as a buffer zone). It has been suggested that most of the coin stray finds are modern losses (Casey 1984), although it has been argued that a reliable and useful core of finds can be extracted and used to demonstrate a Roman presence (Hunter 2010). Recent metaldetecting finds include a number of clusters of late-Roman coinage (from several tens to several hundred), for instance at Luce Sands and Springwood (Bateson & Holmes 2003, 248). Their date ranges are too broad to represent hoards and the nature of these finds is enigmatic and worthy of further study (Hunter 2010, 96-8).

The hoard of late-Roman silver from Traprain Law provides dramatic testament to continuing contacts with the late Roman world (Curle 1923). Its interpretation has been much debated; current research puts it into the mid-fifth century, but there is much still to do in order to obtain a better understanding of its nature and meaning (Painter & Hunter forthcoming; Hunter & Painter (ed), in press).

A review is needed of the extent and nature of late-Roman finds from military sites.

Fieldwork is required to follow up some coin scatters.

Completion of the full modern study of the Traprain Treasure in the context of other similar hoards would greatly assist its interpretation.

<sup>&</sup>lt;sup>3</sup> Follow the links to Marine and Maritime at www.scottishheritagehub.com





Figure 13: Hoard of late Roman coins from Balgreggan, Wigtownshire. ©NMS

#### 3.11 Research recommendations

From the detailed research recommendations in each section, the following are highlighted as key:

- The map of Roman Scotland is still only partly complete for any period. Means of targeting survey in areas generally unresponsive to aerial photography need to be sought. This could be achieved by focused aerial survey, perhaps including the use of multi-spectral imaging; by targeted field-walking and field survey; by predictive modelling of likely locations or by the pursuit of patterns and associations in the distribution of stray finds from metal-detecting or other sources.
- A key priority for establishing the date of the early invasion is dendrochronological dating whenever suitable samples can be identified.
- Key aspects of the sequence at some sites are highly contentious and require resolution, notably the late Antonine/Severan occupation at Cramond and Carpow.



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- Synthesis of ongoing low-intensity developer-funded work on the Antonine Wall is key to maximising our understanding of this major monument.
- An understanding of the fortress of Inchtuthil in its wider landscape would be of broad and substantial benefit to international scholars of Roman frontiers.
- Knowledge of the road network is very poor. Critical appraisal and targeted fieldwork are needed to clarify it.
- Evidence of late-Roman activity requires synthesis.
- Any chance to investigate the maritime context, especially in terms of wrecks or water-front structures, should be seized.



#### **Kintore Roman Camp**

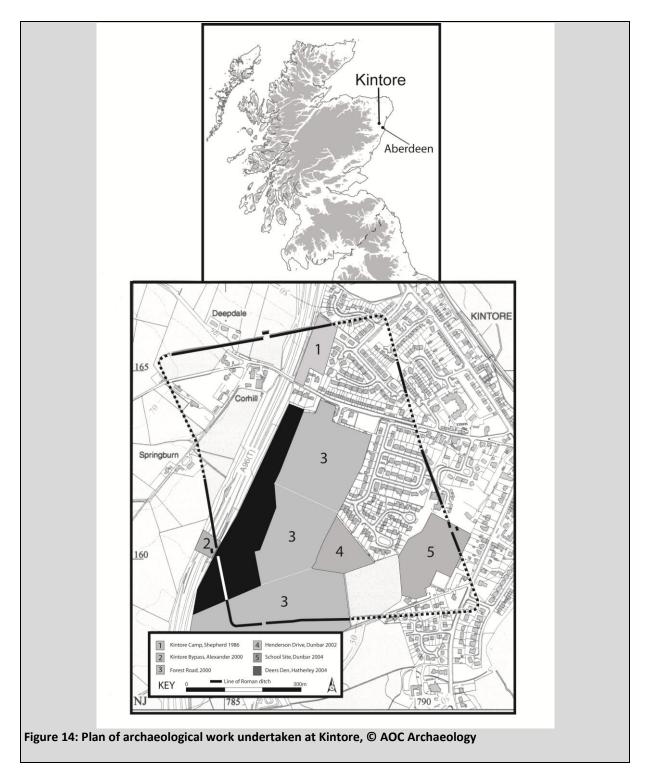
The Roman temporary camp at Kintore is a successful example of how the large-scale excavation of a site, managed through the planning process, has revolutionised understanding of this type of monument. Previously, camps had been assumed to have little in their interiors, but this was partly because only limited small-scale excavation had taken place there, having primarily focused on ditch sections. A PhD thesis by Alan Leslie (1995) highlighted the potential of terrestrial fieldwork, and his arguments have been borne out by the large-scale excavations at Kintore.

Earlier excavations identified some internal features (Shepherd 1987; Alexander 2000) but it was not until extensive excavations in the interior, undertaken between 2000-2006, that the potential of camps to yield significant information has been realised (Cook and Dunbar 2008; Cook *et al* forthcoming).

Some 180 bipartite features, interpreted as Roman field ovens, are now known from Kintore, along with at least 60 rubbish pits and a plethora of non-Roman features. The ovens demonstrated considerable variability in style, orientation, fuel use and size, partly reflecting their location and survival patterns, but also possibly indicating different units and the different backgrounds of serving soldiers. They also produced evidence for multiple firings, demonstrating that the camp was occupied for more than one night (a previous misconception relating to these camps). Artefacts and environmental evidence recovered have provided valuable insights into the army on campaign.

The excavations at Kintore have provided a wealth of information and finds, illustrating how much there is still to find out about these structures. They whet the appetite for large-scale excavation and large-scale geophysical survey on other structures, which could demonstrate that Kintore is not an anomaly, merely the camp that, so far, has received the largest scale of open-area excavations anywhere in the Roman Empire.

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## 4. Forts in their landscapes

Past research has been focused on the military enclosure – the fort, fortlet or camp – as the principal unit of analysis. There exists a need for much broader understanding of the content of the landscapes in which the forts operated, and the range of other structural types present there (such as temples, cemeteries and roads) in order to reach a fuller understanding of the nature of Roman 'occupation'.

# 4.1 Landscapes of conquest and resistance

Because of the long-standing contribution of aerial reconnaissance, Scotland has long been at the forefront of the discovery of Roman temporary camps (e.g. St Joseph 1973, RCHME 1995; see 2.4 above). Leaving aside those which probably relate to construction or training activities, lines of march are apparent in the overall pattern of camp distribution, though the picture is, inevitably, partial (see Figure 2, Figure 7, Figure 11). Some distinct groupings of camps have been identified on grounds of morphology and/or size (e.g. Stracathro camps with their distinctive clavicular gateways, generally dated to the 1st century (Jones 2009c), or the '63-acre' series; Jones 2011, Associating the various 'series' of camps with specific campaigns is problematic because of the difficulties of obtaining independent archaeological dating evidence from anything other than very large scale excavation, as emphasised in a recent major re-examination of the evidence (Jones 2006a; 2011). Where large scale excavation has occurred, as at Kintore (Cook & Dunbar 2008), the results suggest that the picture is even more complicated, with sites being potentially reused across a long period of time. Similarly, excavation at Dunning has indicated reuse which was hitherto unsuspected (Dunwell & Keppie 1995). The very size of many of the camps provides some confirmation of the evidence from pollen analysis that the contemporary landscape in the lowlands had already been extensively cleared of forest

(Hanson 1997, 208-9). Even the largest of recent excavations have been confined to camp interiors, but it would be worth assessing the area outside camps for traces of activity as well; some are known to have annexes, while one might wonder about the presence of exterior rubbish pits or other features, and even the presence of camp followers.

One major battle between Roman and indigenous forces is attested in the literary evidence, as taking place at an unknown location named Mons Graupius in the Flavian period. Despite much debate over many years (e.g. Maxwell 1990; Fraser 2005; Campbell 2010), scholars are no further forward in the confident identification of even the general area of the battle, let alone its exact location. Other battles no doubt also occurred and there are two postulated sites, where Roman siege works surround an Iron Age hillfort. The supposed practice works at Woden Law (Richmond and St Joseph 1983) may be dismissed as made up of a combination of outer defences for the hillfort and land divisions of Iron Age date (Halliday 1982, 82). The Roman character of the siege works at Burnswark is, however, not in doubt, but here opinion is divided over their interpretation, with some favouring a genuine siege (e.g. Campbell 2003; Davies 2009; Hodgson 2009; Keppie 2009) and others preferring to see it as a training exercise (e.g. Breeze 1982; Hanson and Maxwell 1986; both following Steer 1964 and Jobey 1978).

Ongoing aerial survey to enhance the known distribution of camps, with a particular focus on 'gap' areas and making best use of dry summers should be undertaken. Vertical air photographs taken in summer months should also continue to be analysed.

Further opportunities for area excavation within temporary camps where ditch sections alone are insufficient, should be grasped. There is also a need to sample areas



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immediately outside the camps, for comparitive purposes. Geophysics has considerable value in detecting internal features for investigation and perhaps in identifying different camp uses.

Undertake systematic metal-detecting survey of possible sites of Mons Graupius, since this is how the battle site of the Varus disaster was finally identified in Germany (Schlüter 1999; Clunn 2005; Wells 2003). Casual finds should also be monitored with this in mind, as the iron and lead finds likely to be diagnostic are often discarded by detectorists.

The interpretation of the Burnswark earthworks is highly controversial and renewed fieldwork would offer some resolution.

## **Burnswark**

The earthwork complex at Burnswark consists of a Bronze Age cairn, Iron Age hill fort and settlement, Roman camps and a possible fortlet, medieval enclosures, Civil War battery and a triangulation station. The site was first recorded by antiquarians in the 18th century and surveyed by William Roy in the 1750s. The first excavations took place in 1898 and there have been three subsequent interventions, most notably by George Jobey from 1965 to 1970, as well as intensive aerial survey.

The earliest interpretation, in 1785, was that this was the site of a Roman siege. This was generally accepted until 1964 when Kenneth Steer suggested that the camps might have been practice works. The earlier interpretations included other earthworks, or even fugitive features, to propose a circumvallation of the whole hill: the existence or relevance of these elements has been challenged.

The Roman camps have several unusual features, including the different plans of the two camps, the strange layout of the north camp together with its clavicular style entrance, and the three massive traverses along the north side of the south camp, known as the Three Brethren.

Those proposing that Burnswark was used as a training ground by the Roman army cite the walling, paving and debris found in the 1898 excavation in the south camp together with some second century Roman pottery and the interpretation of paving laid at the abandoned west entrance to the hill fort as a target. They also point to the unusual nature of the traverses in front of the north gates of the south camp which also had two phases in its defences. The lead shot found at Burnswark were not generally used by the Roman army in the second century, its use being generally restricted to the time of the Republic. Furthermore, sited atop the relatively gentle slopes of Burnswark hill (particularly on the south side) the hill fort appears to have been abandoned by the time the Roman camps were constructed

The evidence in favour of a siege includes the assertion that some form of circumvallation did exist (now generally discredited), and that the traverses at the south camp were large and therefore intended to confront a real threat. Jobey was not able to locate the walling recorded in 1898, however, he only sectioned one rampart of the two visible ramparts on the top of Burnswark. There is second century pottery from the hill top and a sling shot was found within a house that was apparently occupied at the time of its deposition.

The Roman activity at Burnswark is best dated to the second century on the basis of the retrieved pottery.



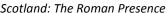


# 4.2 Landscapes of occupation

Because of the long antiquarian interest in the Roman occupation, the distinctive morphological characteristics of Roman forts which are readily identifiable from the air, and the refinement of artefact dating criteria, there is a good overall knowledge of the distribution pattern of forts period by period (e.g. Breeze et al. 1997). Nonetheless there are obvious gaps in the pattern, not least in SW Scotland where further forts might be anticipated, potentially at strategic coastal locations such as Irvine or Ayr, or in the E at the crossing of the Tweed near Berwick (see section 3; Keppie 1990). The recent

identification of a fortlet at Kirwaugh, on the south side of the river Bladnoch near Wigtown (*Britannia* 42 (2011), 336, fig 9) necessitates reconsideration of the likely pattern of occupation in Wigtownshire. Given the level of intensity of aerial survey and the favourable conditions for the production of cropmarks, the paucity of sites in the Lothians is generally considered to represent a real gap (Bishop (2004, 175-6, fig 116) has suggested a road east of Inveresk, but the evidence is not yet published).

Forts are usually located on communications routes, though the road lines are not always





known and rarely independently dated. Often forts are found at river crossings. They are generally about one day's march apart (15-20 miles), though distances vary. There has, however, been no systematic study of the location of forts in terms of their relationship with roads/rivers, orientation, tactical considerations, articulation with other installations, or relations to indigenous settlement patterns or landscape features beyond small-scale case studies. There has, however been a recent systematic study of the location of fortlets, not restricted to the Scottish evidence (Symonds 2007). The increase in the numbers of fortlets located between forts in SW Scotland in the Antonine period is generally taken to indicate greater concern for local security (Maxwell 1977; Breeze 1974; see 3.4 above).

Recent work has made progress with interpreting the literary sources for the occupation, notably Ptolemy's *Geography* (Strang 1997, 1998), and ongoing work by classicists on the sources may provide further insights into the problematic texts which remain, often frustratingly difficult to correlate with the archaeological evidence.

Roman forts in Scotland show a remarkable consistency of design and layout, both generally and in relation to specific building types, indicating adherence to a set of general principles. In the past this has led to assumptions about determining the overall layout of a fort from limited sampling, as for example at Fendoch (Richmond & McIntyre 1939). More recent extensive excavation has provided a more reliable type site for timberbuilt forts at Elginhaugh (Hanson 2007), whilst at the same time manifesting unique features, demonstrating that all forts are different in significant detail (in contrast to all-toofrequent stereotypes). It is also important to note that every site exhibits uncertainties, as recent work has shown at Carriden (suggesting that the conventional location of the fort and annexe should be reversed) and Mumrills (where the sequence is increasingly

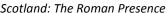
complex) (e.g. *Britannia* 33 (2002), 287; 34 (2003), 303; 41 (2010), 350 and Bailey 2010).

It has also long been axiomatic that there is some direct connection between the layout of an auxiliary fort and the type of unit in garrison, and, moreover, that it was the norm for different types of unit to be housed in their own custom-built forts. Thus, one of the primary foci of excavation strategies has been to establish the character of the garrison (e.g. Frere and Wilkes 1989). It is now more widely accepted that forts constructed for single units were the exception rather than the rule (e.g. Maxfield 1986, 59), so that estimating the garrison strength from limited evidence of the interior layout is no longer feasible. Furthermore, it is only relatively recently, as a result of excavations at Wallsend on Hadrian's Wall and at Elginhaugh (Hodgson 2003; Hanson 2007), that it has become more widely accepted that horses for cavalry units were accommodated with the men in stablebarracks. Thus, in the absence of epigraphic evidence, virtually all previous assumptions about the character of units in occupation at forts in Scotland require revision.

Very few bathhouses have been identified outside Flavian auxiliary forts and it has recently been suggested that this is the period when they begin to appear, with higher-status cavalry forts being the first to build them (Bidwell 2009).

One of the primary areas of Roman military studies is concerned with the development of frontiers and the Antonine Wall has been a focus of study for over a century (e.g. GAS 1899; Macdonald 1934; Hanson and Maxwell 1986; Keppie 2001; Breeze 2006a - see 3.4 and 3.5 above). Although its development, periodisation and character seem to be quite well understood, there are still many gaps in understanding among which are:

- Its eastern terminus and, in places, its course
- an incomplete sequence of fortlets;





- an absence of anticipated watchtowers (Bailey 1995, with the possible exception of one at Garnhall (Woolliscroft 2008) whose identification is disputed);
- uncertainty about which of the two central forts (Auchendavy or Bar Hill) is primary, and;
- the function and full distribution of the so-called 'minor enclosures' (cf Hanson & Maxwell 1983) and similar features. Similarly, the full implications of the secondary character of annexes has still to be worked out (c.f. Bailey 1994).

Given the length and central location of the Wall, elements of it are regularly under development threat. As a result ongoing small-scale work continues to provide the opportunity for cumulative enhancement of knowledge, exemplified in the discovery of a previously-unsuspected series of obstacles on the berm (Bailey 1995). There has been a long tradition of periodic roundups of such evidence, and it is vital that such surveys are facilitated in the future.

More fundamental questions about the function of the linear barrier remain in dispute, directly paralleling the debate about Hadrian's Wall. The debate is essentially as to whether the Wall was designed to be a 'permeable' boundary designed to control movement into and out of the province, or to be a defended barrier primarily intended to deal with military threats. The debate tends to focus on whether or not there was a defended walkway along the wall top, a readily susceptible question not archaeological proof, although the very absence of watch-towers would have made a wall-walk essential.

The narrow neck of the Forth-Clyde isthmus followed by the Antonine Wall is an obvious potential frontier location which also seems to have been utilised briefly during the Flavian

conquest of Scotland (Tacitus, Agricola 23). Unfortunately, there is very little supporting structural archaeological evidence, other than the fort at Camelon and fortlet at Mollins. The suggested earlier use of Antonine Wall sites goes largely unsubstantiated, with the possible exception of Cadder, Castlecary and Mumrills which have all produced Flavian finds (Hanson 1980), the latter also revealing early phases of building in the annexe apparently yielding Flavian pottery (DES 1996, 42). At none of these sites is the evidence sufficiently strong to support occupation and a review of the pottery dating evidence would be timely.

The only other postulated frontier in Scotland, along the Gask Ridge, has been extensively studied in the last decade, with many of the sites undergoing excavation (e.g. Woolliscroft 2002; Woolliscroft & Hoffmann 2006). By contrast to the Antonine Wall, it is largely defined by its watchtowers, along with a decrease in the spacing between forts and the addition of some fortlets, all features which characterise frontiers more widely. Suggestions for its chronological context vary from after the withdrawal from the more northerly forts (Breeze 1982, 61-5), to the temporary halt on the isthmus (Hanson 1991b, 1765-7), to an even earlier, pre-Agricolan, establishment (Woolliscroft and Hoffmann 2006, 178-90), although the latter interpretation has been strongly challenged (Hanson 2009a). Moreover, the interpretation of the Gask system as a frontier has been reconsidered, and an alternative role as a protected supply line to the legionary fortress at Inchtuthil proposed (Dobat 2009).

Aerial survey should be used to continue to enhance the known distribution of forts, with particular focus on 'gap areas' such as the SW, and making best use of relevant dry summers, or on locations where stray finds may hint at missing sites (c.f. Keppie 1990). Vertical air photographs taken in summer months should continue to be analysed.



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The systematic study of forts within their wider landscapes should be encouraged (see further below).

Geophysical survey and sample excavation should be undertaken on sites of uncertain identification, such as the postulated early fort at Ardoch (St Joseph, 1976). Any opportunities for more detailed survey and excavation along the line of the Antonine Wall should be taken, with a view to identifying further smaller structures.

The evidence for fort 'types' and the character of garrisons should be reviewed in the light of the identification of stable-barracks.

#### **Elginhaugh Roman fort**

Large-scale area excavation ahead of development at Elginhaugh has provided us with the most completely excavated timber-built auxiliary fort in the Roman Empire. Of particular importance is the characterisation of several stable-barracks. Their number and disposition make clear that the fort cannot have housed a single unit of any character, and was probably occupied by a vexillation of cavalry. Recognition that it was the norm to house horses and men together has major implications for any previous identifications of likely garrisons based on reconstructions of fort plans. The excavation has also confirmed both the general consistency and individual uniqueness of auxiliary forts: the former in terms of general layout and identification of specific building types; the latter in terms of intervallum activity, unusual plan detail of individual structures and the different histories of different buildings.

Extensive examination of the annexe makes a substantial contribution to the debate about the function of these attached enclosures, and. It also emphasises the contrasting structural history between fort and annexe and the substantive changes in use in the latter over a relatively short time-span. It remains regrettable that it was not possible to undertake more extensive work in the annexe and that subsequent commercial excavation there was entirely divorced from the primary investigation.

Because the occupation is so closely dated by its coin evidence (a foundation hoard from the *principia* ending in AD 77-8 and slightly worn asses of AD 86 as the latest stratified coins), the site provides a very precise dating horizon for a wide range of artefactual material. Of particular importance is the evidence of the local manufacture of both coarseware and mortaria, including the identification of a new mortarium potter, and the indication that the garrison had made use of handheld artillery pieces. An extensive programme of environmental analysis provided insight into issues of local environment and food supply (both local and long-distance), and helped confirm the presence of horses within the fort.

Finally, there is unique evidence that the site continued to function as a collection centre for animals after the garrison had departed, a deduction that would have been almost impossible without the large scale of the excavation. The interior had been cobbled over, two additional wells dug in the interior and ditches inserted across the annexe from the W gate which would have helped to funnel livestock to a single portal gate in the annexe. A coin of Trajan from the later commercial excavation in the annexe may hint at the longevity of that activity.



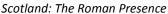


Figure 16: Aerial view of Fort, Annexe and Road at Elginhaugh ©RCAHMS

## 4.3 Landscapes of settlement

Forts were not established in isolation. They both sat within a natural and settled landscape, and then created their own surrounding landscape infrastructure of camps, fields, *vici*, temples, roads, bridges and cemeteries. Thus the fort acted as a node with profound influence on the surrounding area. How extensive this area of influence was is difficult to define and no doubt varied, but known examples indicate it is likely to have extended for at least a kilometre beyond the ramparts in terms of visible infrastructure.

To begin with the indigenous settlement landscape, there is a fundamental problem of chronology when it comes to identifying sites contemporary with the Roman occupation. Archaeologists have been reliant in the main on the presence of Roman material on indigenous settlement sites, but generally there is little of it and most sites fail to produce material later in date than the second century AD. However, given that Roman artefacts seem to have been differentially available according to social, political or economic factors, no chronological implications need necessarily be drawn from





their absence from sites of potential Roman date. Though certain sites, such as lowland brochs and some souterrains, have been fairly extensively studied and regularly show occupation in the Roman period, there are large numbers of settlement enclosures recorded from aerial survey which cannot be dated without excavation. Recent excavation and survey in East Lothian has indicated that most settlement sites occupation continued uninterrupted into the Roman Iron Age, though with a marked reduction in the number occupied by the 3<sup>rd</sup> century and a greater focus on Traprain Law (Haselgrove 2009; Lelong and MacGregor 2007; Hunter 2009). Bayesian statistical approaches to radiocarbon dating, as applied in the Traprain Environs Project (Hamilton Haselgrove 2009) offer the potential to refine the dating of Iron Age settlements so that their attribution to the Roman Iron Age is less reliant on the presence of Roman artefacts.

No towns ever developed north of Hadrian's Wall, but civilian settlements outside forts (vici) are attested at several sites in the Antonine period, mainly associated with the Antonine Wall, notably at Carriden, Croy Hill and Rough Castle, where extensive field systems are attested (Hanson and Maxwell 1986; Jones 2006b, 2007). Identification of the vicus at Carriden is further confirmed by an altar dedicated by vikani (RIB III, 3503). The most extensive civilian settlement known in Scotland is at Inveresk, where a combination of stray finds, aerial photography and excavation by different organisations over a number of years has revealed structures extending for approximately a kilometre from the fort (Bishop 2002; 2004), In general, however, current knowledge of vici is little more than rudimentary and as yet there has been only one postulated in relation to a Flavian fort, at Easter Happrew, where aerial survey has identified buildings outside the fort on the opposite side from the annexe, supported by an extensive spread of finds (RCAHMS 1967, 171, fig 181; Wilson 2010, 49).

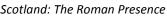
One related debate concerns the character and function of fort annexes. Some consider them to be defended vici (Sommer 1984, followed by Bidwell & Hodgson 2009, 31-3), though this interpretation is hotly disputed Hanson 2007). Some substantive excavations have taken place (at Camelon, Newstead, and Elginhaugh), but there is still considerable scope for further field work and excavation to define function. Attempts to identify vici by means of geophysical survey along the Antonine Wall, however, have not proved successful (e.g. Burnham et al 2007, 256-9), but were much more successful at Newstead, where a contrast between magnetically 'busy' and 'quiet' areas was very clear. Possible mansio buildings have been identified within attached annexes Glenlochar and Newstead (Frere and St Joseph 1983; Black 1991) and postulated elsewhere, but none have been subject to detailed modern investigation.

Geophysical and other survey, and excavation as appropriate, should be undertaken in the vicinity of fort sites of all periods and particularly within fort annexes and at the sites of potential vici. Basic questions remain about the nature of both annexes and vici, and the activities taking place within them.

An evaluation should be a standing requirement of any ground-breaking work within 1 km of a fort.

The publication of the backlog of excavation reports on a range of important sites, including Newstead and surrounding settlements, Camelon and Croy Hill (see Table 4) should be actively encouraged.

Every opportunity to examine potentially Roman Iron Age settlement sites should be taken. Multiple C14 samples from these are required so that their chronology can be statistically refined and the detailed development of indigenous society studied.





# 4.4 Landscapes of sustenance and exploitation

Pollen analysis has provided a basic framework for the environment of the Roman Despite attempts by some palynologists to suggest otherwise (e.g. Dumayne and Barber 1994), major forest clearance linked to the extension of agriculture is a late Iron Age phenomenon unrelated to the arrival of Roman forces (Hanson 1996; Tipping 1997). What remains in debate is the extent of (and motives behind) that clearance, and the size and, indeed, location of the Caledonian forest which features in Roman literary accounts as early as the writings of Pliny in the mid-first century AD (Breeze 1992).

Although a lot of basic environmental work has been done in relation to individual recently-excavated fort sites (e.g. Dickson 1989; Clapham 2007), providing evidence of diet and food supply, there has been no systematic, synthetic study. The major debate concerns the extent to which primary bulk foodstuffs (cereals and, to a lesser extent, meat) were obtained locally, rather than imported. Unfortunately, animal evidence from Scotland is notorious for its paucity, linked to the general acidity of the soils, making it hard to assess any evidence for stock improvement or the intriguing suggestion by Stallibrass (2009) that droving may have been an element of supply patterns. Wherever possible local supply of cereals seems to have been preferred (Manning 1975), and there are very occasional hints in the archaeobotanical evidence from fort sites which lend support to such a suggestion, including the appearance of unprocessed or only partly processed cereals. On the supply side, recent work on environmental evidence from indigenous settlement sites in the Lothians indicates that emmer and spelt wheat were potentially available locally, with barley in abundance (Huntley 2000; Huntley and O'Brien 2009; Lelong and MacGregor 2007).

Though there are limited examples of field systems known outside forts (e.g. Carriden, Croy Hill, Rough Castle, Auchendavy, Inveresk, the character Castledykes), of relationship with the fort remains speculative. Some have been sampled by excavation, and some dated to the Roman period as a result (e.g. Inveresk; Cook 2004), but there has been systematic study. The Auchendavy, if correctly identified as such from the limited sampling, lie north of the Antonine Wall (Dunwell et al. 2002, 274-279).

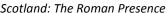


Figure 17: Aerial view centred on the cropmarks of the field system and Roman temporary camp at Castledykes, South Lanarkshire © RCAHMS

Excavation suggests that most fort sites were provided with internal wells, though clay water-pipes have been recorded at Newstead, and traces of aqueducts noted at Fendoch and Carpow. However, there has been no systematic attempt to identify external water sources. For sustenance in material terms, seen in the evidence for craft production, see section 5.6.

Environmental data from both Roman military and late pre-Roman and Roman Iron Age indigenous settlement sites needs to be synthesised.

Trial excavation is needed to confirm the relationship of the field system and temporary camp at Castledykes and further geophysical survey is required at Auchendavy to establish the extent of the postulated field system.





Systematic study of the wider landscapes of forts is required.

Appropriate levels of standard, systematic environmental sampling should be undertaken for any excavation projects, with a particular attention paid to those with waterlogging or good bone preservation.

## 4.5 Landscapes of belief

Evidence from other Roman frontiers (e.g. Derks 1991, 1998) makes it clear that Roman forts had elements of a sacred landscape around them - formal architectural foci such as temples and shrines, natural 'sacred' places such as springs and bogs, elements of ritualised deposition within settlement contexts, and the landscapes of the dead, with cemeteries and tomb monuments. Yet, although religious inscriptions tombstones have long been a focus of study in Roman Scotland (Keppie 1998), there has been very little attempt to contextualise these in terms of their landscape or social context. This is surprising, since in many cases the hooks for further research are already present; in others, future research projects, or modifications to current practice developer-funded archaeology, can be clearly identified.

# 4.5.1 Religion & deities

provides The Roman period easily recognisable evidence for religion, such as deities' names on inscriptions, iconography, and temples, and there is a tendency within the imperial boundaries to focus on this at the expense of the more difficult-to-interpret late prehistoric evidence. Due to the brief and sporadic nature of Roman occupation in Scotland, there is barely any sign of fusion between Roman military religion and local religious practices (usually conceived as Romano-Celtic syncretism). Some religious practices in Roman-period Scotland would have been influenced by proximity to imperial Rome (such as the inclusion of Roman material in votive hoards), but the reception of any new ideas and practices among the indigenous population would be largely

dependent on the attitudes of the Iron Age societies living in Scotland (Hunter 1997; 2001). Andrén (2005) has argued that Old Norse mythology was markedly influenced by Roman religion, but there is little material sign of this in Scotland; for instance, religious statuettes are rare in indigenous contexts, in contrast to Denmark.

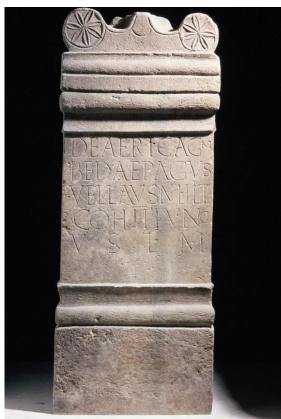


Figure 18: Altar to the goddess Ricagambeda, from Birrens. She was probably a goddess from the lower Rhine homelands of the Second Cohort of Tungrians who erected this altar ©NMS

A wide range of deities is attested in Roman Scotland from altars and inscriptions (Keppie & Arnold 1984; RIB I; Hanson & Maxwell 1986, 182-6, 191-2): the official cults (notably the cult of the Emperor and of Jupiter); the traditional Graeco-Roman pantheon; deities introduced from elsewhere (from the homelands of the soldiers, such as Hercules Magusanus from the lower Rhine, or other popular 'exotic' cults, such as Jupiter Dolichenus from Syria); and local (pre-existing or invented) deities. This indicates a vibrancy and variety of religious experience among frontier communities, although surviving





epigraphic and sculptural evidence exclusively 2<sup>nd</sup> or early 3<sup>rd</sup> century in date. The limited length of occupation of the Antonine Wall was apparently not enough to establish local cults among the military communities, as occurred on Hadrian's Wall. This leaves us with very few local gods, although there are dedications to Brigantia and Maponus from Birrens (RIB I,2091; III,3482); other 'local' deities, such as the 'spirit of the land of Britain' from Auchendavy (RIB 2175) are Roman inventions, not indigenous perspectives.

Although inscribed monuments from Scotland are not as numerous as from England, comparison between epigraphy and patterns of worship (e.g. social rank, military position and gender of the dedicatee) on the Antonine Wall and Hadrian's Wall could be useful for providing chronological indicators and social interpretations of the larger southern corpus.

The subject of religion on the frontier needs a research perspective beyond the purely Scottish, especially in comparing it to work in other frontier areas (e.g. Derks 1991, 1998).

# 4.5.2 Temples/ritual sites

There were temples in Roman Scotland, but none has seen modern study. Indeed, few have even been located: the remarkable monument of Arthur's O'on was destroyed in the 18<sup>th</sup> century, while, more shockingly, in modern times what may have been a temple podium at Easter Langlee (Borders) saw no significant investigation prior destruction (Steer 1966). Yet over the years stray finds of altars and sculpture should have guided research to these areas; indeed, one altar is believed still to stand in its original position, offering remarkable opportunities for research - the Carrick Stane, sitting forlornly in a housing estate at Cumbernauld (Donelly 1897). The editors of RIB I attributed altars to their nearest forts, but in many cases the original findspots offer clues to extramural ritual sites. The altars to Mithras and Sol discovered in 2010 probably lay in a

religious structure, but the constraints of the development limited the amount of work done in their surroundings.



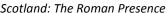
Figure 19: The Carrick Stane. A Roman altar near Cumbernauld, perhaps still in its original location © Fraser Hunter

Temple sites are a priority for exploration to broaden the picture of frontier life. This requires a focus of enquiry away from the immediate fort and into the extra-mural areas associated with military installations. Any new finds of sculpture and altars might provide clues to the locations of cult sites (such as the recently-discovered Inveresk altars), and old finds have much still to tell. Such sites might not be in close proximity to military sites, as the example of the possible victory monument of Arthur's O'on north of Falkirk suggests (Brown & Vasey 1990).

Engagement with onomastic philology and the Roman place-names of Northern Britain might also provide clues for further research and potentially inform us about Roman Iron Age local religious sites (e.g. the prolific output of A. Breeze, and example of Coates and Breeze 2000 for England). The work of Strang (1997) on Ptolemy's Geography might also be usefully revisited by someone with a detailed knowledge of both Iron Age and Roman archaeology.

#### 4.5.3 Ritual practice and deposition

Ritual practice need not focus on temples. With many of the metalwork hoards known from southern Scotland, which are most





plausibly votive deposits, it is impossible to say if these were the outcome of the acts of Roman soldiers or other elements of the frontier community (Hunter 1997); yet the types of deposit (such as vessel hoards) are readily paralleled elsewhere in Roman Britain.



Figure 20: Hoard of a bronze dipper and strainer set from Gainerhill, near Lanark. ©NMS

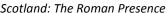
There could also have been deposition in settlement contexts. The ritual nature and religious motives of such acts have seen a long debate in Romano-British archaeology; in Scotland, this has focused on interpretations of the deposits in the pits at Newstead, with explanations varying from ritual to mundane (e.g. Feachem & Ross 1975; Clarke & Jones 1996; cf Curle 1911, 104-115; Manning 1972, 243-46; 2006b). Other examples include the well deposit at Bar Hill and what is plausibly a foundation deposit of denarii at Elginhaugh (Robertson 1975, 12-15; Bateson & Hanson 1990; Bateson 2007). The different types of pits and the range of material deposited in them at the fort at Newstead warns us that activity on Roman forts can be extremely complex, requiring sophisticated and careful examination. Newstead is the obvious place to pursue numerous themes relating to processes of deposition, due to the wealth of material from pits across the site (see Clarke 1997; 1999).

A full and integrated study of the Newstead material in the context of a fresh reexamination of the material itself, to understand better its nature and condition when buried, is required. Perspectives on structured deposition familiar in prehistory (e.g. Hill 1995) should be applied to Roman settings to test their applicability (as, for instance, with the tool hoard from Strageath; Hunter 2006, 85-6).

Findspots of stray finds likely to represent deliberate deposits should be excavated in an attempt to clarify their setting.

### 4.5.4 Landscapes of death

Evidence for Roman burials has so far proved elusive, with a scarcity of excavated burials (the few known burials are isolated) and precious few examples of tombstones or funerary sculpture (see Collard et al 2000 for an initial summary; Davies 1976 for potential tombstone at Auchendavy). This again arises in large measure because the focus of previous research was on the fort itself rather than its wider context. Chance discoveries (such as the Cramond lioness, found in the river near the fort, or the Carberry tombstone, located two kilometres from the nearest fort) emphasise the need for a geographically broad perspective (Hunter & Collard 1997; Hunter & Keppie 2008). An obvious focus of attention should be the vicinity of road-line corridors, already known as likely locations for Roman burials. Recent work north of Inveresk fort has found a scattered cemetery (ex inf CFA Archaeology), and it is likely to be through such development control work that cemeteries are located. These need full, careful excavation and extensive post-excavation work to understand the range of rites (with cremation, supine inhumation, crouched inhumations, decapitated burials, and Iron Age style cist burials all having been recorded in the sparse record). The bodies themselves could yield information from standard physical anthropological approaches and from isotope work on bones and teeth. Examples from England provide good case studies for best practice in cemetery analysis (eg Cool 2004).





Geophysical or aerial survey might find evidence for such landscapes of belief if focused beyond the expected features of forts. Development on the peripheries of Roman military areas should also be carefully monitored as important evidence for ceremonial/ritual activity may be under threat beyond areas recognised as likely to produce material of interest. In particular, areas adjacent to known road lines need careful monitoring, as cremation burials (the norm at the time) would be difficult to find in evaluation trenches, and would require careful monitoring and excavation.

Excavation of a Roman cemetery, would be of great benefit to understanding life and death on the frontier; such sites are rare generally on the northern frontier.

# 4.6 Landscapes of memory

The idea of memory in conceptualising landscape is relevant in two areas of study in Roman Scotland. The first is the positioning of forts in relation to the existing and past landscape, both cultural and natural. This has seen no sustained study, and when comments are made, they tend to be focused on Roman forts supplanting indigenous settlements (e.g. Hanson 2004, 146). Yet the landscape had a deep past, with certain locations having a resonance and significance to the local populations. Was this reflected at all in the disposition of Roman forces, in deliberate attempts to appropriate part of this, or was it immaterial? Is the location of Newstead (Trimontium), for instance, linked solely to a strategic crossing of the Tweed or control of a local power centre, or did the visual (and arguably religious) significance of the three Eildons play a role too? Is the conjunction of Roman sites and Neolithic ritual monuments, instance at Raeburnfoot Fourmerkland, just a reflection of the desirable properties of flat gravel terraces near water courses?

Ideas of memory are also relevant in considering the legacy of Rome (see also section 6.5). How were fort sites perceived and used in later periods? Were they foci for activity, or appropriated to acquire power by association, or ignored? There has been no systematic treatment, but random examples indicate a variety of processes: evidence from Kintore that the area of the camp was avoided for several centuries (as taboo, or perhaps contaminated land?) contrasts with the burial tumuli adjacent to the ramparts of the fortress at Inchtuthil (Winlow and Cook 2010), or the churches and occasional castles set in other forts (Cook & Dunbar 2008, 354-6; see Maldonado forthcoming for re-use of the Antonine Wall). Place names may provide another pointer to later views; many Roman forts were called 'fort' in either British (caer e.g. Cramond, Cadder, Carriden) or Gaelic (cathair e.g. Stracathro) (Watson 1926, 365-71), but the significance of this merits renewed attention. There was also reuse of Roman stone (discussed below, section 6.5) for powerful Early Historic fort sites as well as souterrains and burials, again indicating a perceived significance to the legacy of Rome.

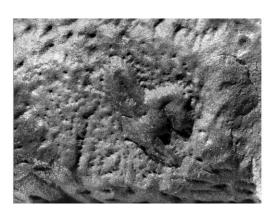


Figure 21: Re-use of Roman stone including a carving of a Pegasus at the Crichton souterrain ©RCAHMS

Neither the Roman perceptions of the preexisting landscape nor the later impact of Roman forts and camps have received any sustained attention; both are ripe for research.

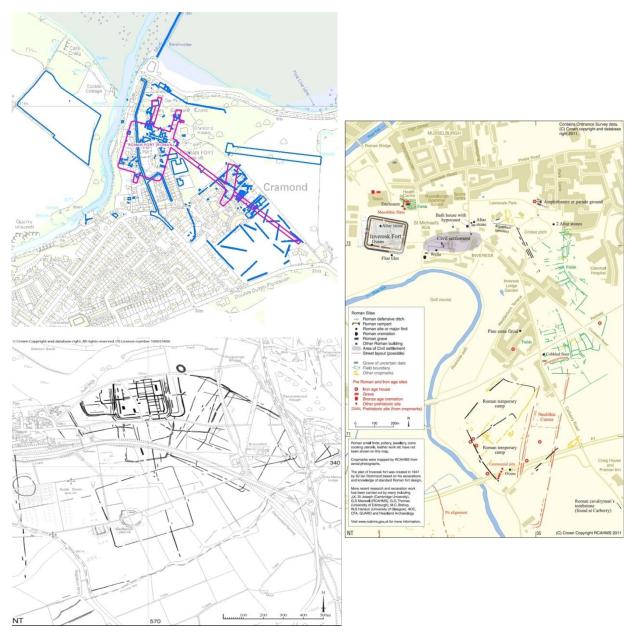


Figure 22: The examples of Cramond, Inveresk and Newstead show the extent of Roman activity beyond the fort walls. At Newstead and to a lesser extent Inveresk some of this was known from cropmarks, but the extent of activity at Cramond is only known from excavation and survey. At all three sites significant new finds have been made in previously blank areas some distance from the fort. There is no reason to think these forts are unusual in having activity around them; they are simply better-known than most other Scottish sites. This emphasises the need to evaluate any development within c. 1km of a Roman fort, in order to find the little-understood landscapes surrounding it. Inveresk © RCAHMS, Cramond © RCAHMS © Headland Archaeology Ltd © Ordnance Survey, Newstead, © RCAHMS

Scotland: The Roman Presence

#### 4.7 Research recommendations

Our main research recommendations in this section are:

- The need to excavate large areas of the interior of camps, not just ditch sections, and to sample outside them
- The value of the geophysical survey of camps
- The value of survey and the sample excavation of problematic or uncertain sites
- The continuing priority which should be given to the geophysical survey, fieldwalking and excavation of annexes and *vici*
- The need for synthesis of existing environmental work, and for maintaining extensive sampling from modern excavations
- The need to look beyond the fort for other aspects of its landscape, especially burials and religious sites; a 1 km buffer zone around known sites should be treated as a priority for investigation in development control work.
- The issue of memory is greatly understudied, in terms of the relation of Roman sites to the earlier landscape, and the use of Roman sites after they were abandoned



## 5. Supplying the army

#### 5.1 Introduction

The Roman army had a voracious appetite. Its soldiers needed to be armed, housed and fed and in order to achieve this, both local and distant resources were required, their role and importance changing over time. The ranks of the legions at least included specialist craftworkers, and in all forts repairs would have been undertaken locally. However, much of the evidence rests on slender foundations and on analogy. In general, wherever possible, the army sought to obtain its supplies locally. This might have been achieved for many items of food and perhaps also leather, which was extensively used for a wide range of items (although the issue of goatskins, the key raw material for sheet leather such as tents but poorly attested in the bone record, remains debated; van Driel-Murray 2002, 109-111). Many key supply products, such as food, are near-invisible archaeologically; here pottery has great value as a proxy for wider supply routes, since it is generally argued that pots were not the prime import, but were traded for their contents or used as space-filler in larger cargoes.

## 5.2 Feeding the Army

According to the general literary sources, the standard military diet consisted of corn, bacon, cheese and vegetables, but the staple was corn, preferably wheat, consumed in the form of bread, soup or porridge (Davies 1971). The military ration has been variously calculated, but a figure of between 59 and 78 lb (c.25 and 35kg) per man/month seems likely (Tomlin 1998). The importance of cereals in the diet of the troops is confirmed archaeologically by environmental evidence from a number of forts (e.g. Elginhaugh and Bearsden; Clapham 2007; Knights et al 1983); the standard provision in all forts of granaries (though not necessarily restricted to the storage of grain); the presence of numerous baking ovens around the perimeter of forts (though not necessarily only for the baking of bread); and the frequency with which quern stones are attested (although not necessarily

for the grinding of corn). Analysis of the Bearsden sewage suggests the importation of wheat and barley to be ground on site (Knights et al 1983). It remains to be established how much locally-grown grain was used.

Meat may not have formed as significant a part of the military diet as has often been assumed, with perhaps a daily ration of only 0.13 lb (c.0.06Kg, 60gms; Groenman- van Waateringe 1997) and this is supported by the evidence from Bearsden (Knights et al 1983). evidence from Britain generally indicates a preference for beef and pork amongst the military, with pig and sheep/goat making up the bulk of the remaining 10% (King 1984, 1999; Stallibrass 2000). What bone evidence there is from Scotland, limited by its generally poor preservation in acid soils, provides broad confirmation. Occasionally, where conditions of preservation favourable, other species are attested, including birds, game, fish and shellfish (e.g. Ewart 1911).

Evidence of the consumption of more exotic, imported items is variously attested. Olive oil and wine were essential elements of the Roman diet and are well attested by the recovery of amphorae. Some imported luxuries are also indicated from environmental evidence, including figs (at Bearsden and Elginhaugh). To balance this, several types of locally available wild fruits were consumed (Dickson and Dickson 1988).

Cool (2006) has shown the value of taking an integrated approach to the evidence of eating and drinking. There are the ingredients for a more complex and subtle picture of military diets in the existing archives, both from fresh study and from the application of scientific techniques such as residue analysis (e.g. Cramp et al 2011) systematically to old and new finds. In the event of skeletons being excavated, these too can now cast important evidence on questions of diet.





Figure 23: Roman bronze vessels and an iron gridiron from Newstead. ©NMS

Food preparation is attested by the frequent recognition of ovens around the perimeter of forts set against the back of the rampart, usually in groups of two or more (e.g. Doune, Elginhaugh, Fendoch, Inchtuthil). Recent work at Elginhaugh suggests that each cavalry barrack probably shared two ovens (Hanson 2007, 193). At Bearsden, the lack of ovens may relate to a different style of cooking; in this case there is evidence for braziers, suggesting African-style casserole cooking (Swan 1999). The widespread distribution on sites of pottery and quernstones indicates that both the preparation and consumption of foodstuffs was a dispersed activity, possibly by century or contubernium. Vivien Swan has suggested that one can identify a consistent pattern within military coarseware assemblages representing the standard 'issue' of a specific range of coarseware for a group of soldiers in a contubernium, including jars and lids for storage and cooking, mortaria and other forms of bowl for mixing, shallow dishes, flagons, beakers and, cups for food consumption (2008, 49-51).

Many excavations took place before the days of improved retrieval of environmental evidence, so there is a good chance that new excavations (at likely locations on the old sites) will produce significant material. The need for well-designed environmental sampling programmes on modern excavations should be self-evident, but bears repetition.

#### 5.3 Building Materials

Wherever possible, building materials (turf, timber and stone) were obtained locally, though direct evidence is often lacking. The use of local timber is strongly implied by the use of less suitable structural timbers, such as alder, as attested at Elginhaugh, and at Vindolanda and Carlisle in N England (Hanson 2009b).

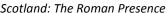
Probable stone quarries are occasionally attested, as at Inchtuthil where a well-metalled road leads to a likely quarry site on Gourdie Hill (Pitts and St Joseph 1985, 47, 255-6). The nearby temporary camp at Steed Stalls (a.k.a. Gourdie), long thought to be a quarry, is more likely to relate to lime-burning for mortar; it contains several upstanding and cropmark 'stalls', probably large kilns (RCAHMS 1994, 83).

Ceramic building materials (brick and tile) are attested at many sites; Bailey's (2004) work indicates patterns of local production and distribution (see 5.6.1 below), while scientific analysis by Gillings (forthcoming) supports evidence for local production.

Lead was important, for instance for water pipes. Three lead pigs are known from Scotland (from Bertha, Kirkintilloch and Strageath). Analysis of the latter, the only modern find, indicates extraction of the lead from N England or just possibly S Scotland (Frere and Wilkes 1989, 174-5; Hunter 2006, 85; see 5.6.2 below).

The evidence from Inchtuthil formed the basis for a stimulating exercise in logistics, working out possible resource implications for building the fortress (Shirley 2000, 2001; cf *Britannia* 33 (2002), 401-2). This must be treated with some caution, as there are caveats over the assumptions, but such exercises are valuable in providing estimates and models for further analysis.

No survey has yet been undertaken of a potential quarry site nor an enumeration and description of all known sites. A small-scale





excavation at Steed Stalls would usefully test the hypothesis that it contains lime kilns.

Specialist geological study of building and sculptured stones would be of great value in understanding sources and distribution systems.

Any opportunities to investigate surviving timbers from waterlogged sites should be taken up (c.f. recent work at Carlisle).

## 5.4 Changing patterns of imports

The army used different means to obtain supplies (Breeze 1984). They might make their own goods in central workshops, such as arms and armour. The provincial army, or an individual unit, might purchase supplies at fixed rates. In the East, orders are known to have been placed for items with suppliers in another province. Documents indicate that the army provided the soldier with certain items, including for example a share of the tent. But he might also purchase items of equipment or food for himself or ask his family to send them. It is possible, at least in the second century, that he purchased pottery vessels, as well as other goods, in the civil settlement outside the fort.

The Roman world was sophisticated and the pattern is complicated, and changed through time. In Scotland, there is a general trend from the army supplying itself in the first century, to a greater reliance on civilian suppliers in the second century; there is also a shift from reliance on more imported material to local production. The resulting pattern is complicated with soldiers, according to documents from elsewhere, cutting stones at quarries, travelling considerable distances to collect supplies and escorting supplies, and civilians delivering goods to forts. Some of these activities would have led to soldiers being away from their units for considerable periods, thereby reducing their operational efficiency.

Insights into economic activities can come from a range of sources. Coin supply and use

is one which has received attention (Robertson 1978; Abdy 2002), and as datasets grow this will remain an important area for analysis.

A major research requirement is to improve knowledge of supply patterns and their development with chronology and geography: for example, does material from forts placed on readily-accessed waterways differ from those served by road? Evidence is plentiful; a review of the most ubiquitous artefact, pottery, would help, as it serves as a proxy for other materials.

For such analyses to be easier, pot assemblages should be analysed following the standards of the Study Group for Roman pottery<sup>4</sup>).

A research project for comparing patterns of imports between the two walls would be valuable in revealing similarities and differences.

# 5.5 Exploiting the landscape

Palynology (on both peat cores and turves from ramparts) has been used both to support and to reject the proposal that the presence of the Roman army and the pax Romanorum affected the landscape (e.g. Whittington and Edwards 1993; Tipping & Tisdall 2005; Hanson 1996 contra Dumayne & Barber 1994). It is now accepted that any such changes are difficult to recognise and that much more work on closely-dated sequences is needed in order to be able to take this forward. It has been argued that there should be an effect on indigenous settlements, perhaps a growth in their number and size, but such sites are difficult to date without modern excavation. Furthermore, a possible counterbalance, the forced export of men for service elsewhere in the Roman army, is equally difficult to recognise in the archaeological record. In short, it is difficult as yet to see in any aspect of the archaeological

<sup>&</sup>lt;sup>4</sup> (<u>http://www.sgrp.org.uk/07/Doc/Contents.htm</u>



evidence an impact of the Roman army on the Scottish landscape, though this should only encourage further work. Tipping & Tisdall (2005) have provided a thorough overview of the landscape context of the Antonine Wall, but other work has, generally speaking, been more piecemeal.

More (targeted) pollen analysis to create a Scotland-wide view of the environment during the late pre-Roman Iron Age, Roman and post-Roman periods.

Work focused on the environs of specific forts, where suitable samples can be identified, would allow identification of local variation in conditions. In favourable circumstances, closely-spaced sampling, analysis of several closely-adjacent cores, and selection of different locations to give local as well as regional pictures, may be able to provide a detailed appraisal of environmental changes and their causes.

Further studies from north-east Scotland are needed to test the conclusions reached by Whittington & Edwards (1993) on a limited range of samples

## 5.6 Craft & industry

Craft and industry have seen surprisingly little work in Scotland (with the exception of pottery production), yet there is considerable evidence in the excavated assemblages, as discussed below. Enough sites have been excavated to a standard and scale which would allow comparative approaches at a broad level, permitting the framing of questions for testing by subsequent analysis or excavation.

Excavated material is ripe for reappraisal, initially on a broad-brush presence/absence basis to see how common particular crafts were. This could then be developed in more detailed work looking at issues of location and frequency of activities, and so on. Specific projects could look, for instance, at variations along the Wall, or consider broader patterns in space and time across Roman Scotland. The

great advantage in Scotland is that the assemblages are manageable; it would not be an impossible effort to study the bulk of the material first-hand (with the exception of pottery, which is a much larger task) and produce a first-stage synthesis. Key questions include: how self-sufficient were forts in producing a range of material culture, whether primary manufacture or expedient repair? How much of this took place in the fort, and how much in surrounding settlements or vici? Were there supply networks between forts?

## 5.6.1 Ceramics<sup>5</sup>

There has been growing evidence for the local production of pottery vessels (Breeze 1986 reviews the position to that date). In the first century, the army might make its own pottery. At Elginhaugh, for example, quite a high percentage of the coarseware, including mortaria, was produced locally on the basis of wasters, the mass of pottery, distinctive fabrics and the forms they are linked with, though no kilns were discovered. The substandard workmanship of some of the coarseware suggests that it was produced by the military themselves to compensate for deficiencies in long distance supply (Dore 2007). Several different civilian potters of continental or southern British origin, including a newly identified potter, were involved in the production of the mortaria (Hartley 2007). Camelon appears to have been one of the forts supplied with mortaria and presumably other pottery by the Elginhaugh workshop. Stamped mortaria made at Elginhaugh have also been identified at Carlisle (2), Castleford and Ribchester, which must indicate either troop movements or specific visits by military personnel. During the second century, some civilian potters moved north and worked outside some forts or became involved in what were to all intents and purposes, multi-potter workshops. One of these, Sarrius, had a workshop at Bearsden,

<sup>&</sup>lt;sup>5</sup> With gratitude to Kay Hartley for much helpful advice on this section.





and also had two other subsidiary workshops further south (Buckland, Hartley and Rigby 2001, 45-47; Breeze in prep). The three workshops, may or may not have functioned at the same time, but his major workshop outside Manduessedum in Warwickshire was active throughout all of their minor productions. There is evidence to suggest that the extent of distribution for potters working in Scotland varied from those with a very localised distribution to those with a quite extensive one e.g. Newstead (Hartley 1976). The multi-potter workshops at Elginhaugh, probably at Bearsden and putatively at Newstead indicate that pottery production was definitely linked in some way to the army.



Figure 24: Pottery vessels made locally at the forts of Inveresk and Elginhaugh. ©NMS

The pottery from all sites in the Antonine occupation includes pottery brought into Scotland, as well as a greater or smaller amount of pottery made in Scotland (of which Inveresk Ware is the best-known example; Swan 1988). It was easier to recognize mortaria made in Scotland in the Antonine period because so many are stamped, but there is growing evidence, especially in view of the multi-potter workshop at Elginhaugh that something similar may be true for the Flavian occupation. This is more difficult to judge because fewer of the vessels involved were stamped. Most of the mortaria made at Elginhaugh were, of course, unstamped, but because there are so many preserved and there is a point to work from, it should be possible to trace the site's products at other locations in order to get some idea of what the distribution area was.

Of other ceramic material, Bailey's ongoing work on tile production along the Wall has identified distinctive and often unconscious "signatures" in keying patterns, allowing particular production sites to be identified. This has shown that some sites were supplying material to others (Bailey 2004), and the process merits fuller study.

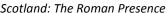
Re-examination of older assemblages for evidence of local production is an important future area of research. How much distribution of local products is there beyond the immediate site? E.g. where does Inveresk Ware go? Scientific analysis might be of value here, as the analysis of Medieval redwares proved most beneficial in provenancing studies (Chenery et al. 2011).

Production and procurement patterns for brick and tile require further research.

Prospection for kiln sites (e.g. geophysical survey), and excavation should be encouraged.

5.6.2 *Metal: procurement and manufacture* There is increasing circumstantial evidence for Roman-period (presumably military) use of the Wanlockhead / Leadhills lead source from reappraisal of lead isotope results on lead pigs and work on pollution signatures (Hunter 2006; Mighall, unpublished). The known lead and silver source at Siller Holes, near Carlops is another circumstantial candidate given the temporary camp in its immediate vicinity and its proximity to a known road line. It is important to keep an open mind on the possibility of other metals being exploited; only iron-smelting seems to find some partial evidence, of uncertain scale (it is recorded, for Doune: **Photos-Jones** instance, at forthcoming).

Roman sites regularly produce iron-working evidence, as might be expected if repair (and perhaps manufacture) of tools and weapons was an everyday task. Indeed, it is now





attested on campaign at the camp at Kintore (Heald 2008, 209). The nature and scale of this activity is as yet poorly understood.

Small-scale evidence of bronze-casting is found widely on fort sites, but rarely commented on (e.g. Strageath; Frere & Wilkes 1989, 203). Yet it merits synthesis to see how frequent it was present, on what scale and to what end. Surviving evidence includes examples of indigenous-style artefacts, raising the question of the nature and meaning of items. There has been consideration of the alloys used in the frontier though scientific analysis, zone Dungworth's work (1996, 1997) identifying patterns linked to technology and cultural tradition; this is an area where further testing would be valuable. Melted lead is frequently found on fort sites, and seems to have been worked regularly – presumably because it was both easy to manipulate and frequently pressed into service as a handy patching system.

More work on pollution signatures around mines would be valuable to confirm the evidence and clarify its scale: the Leadhills/Wanlockhead and Siller Holes sources are prime candidates. Were any other sources used? What iron sources were utilised? Was it simply bog ore?

Synthesis of the evidence and renewed study of surviving material to consistent standards is required. Are slag assemblages from different forts essentially similar? How do they compare to indigenous iron-working?

Synthesis of non-ferrous metalworking evidence is needed; how does copper-alloy working relate to indigenous habits?

There has been no attempt to see if the lead can tell us more; for instance, to look at source via lead isotope analysis. Is there any evidence of pewter use?



Figure 25: Blacksmiths tongs from Newstead ©SCRAN and NMS

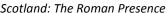
## 5.6.3 Glass: vessels & jewellery

There is rare evidence of the production of glass vessels in Scotland (e.g. at Camelon; Price 2002, 90), but it is exceedingly unusual. It seems this was not the kind of practice to be expected at every fort.



Figure 26: Selection of Romano-British / Roman Iron Age glass bangles. ©NMS

Distribution of products (for instance, decorated melon beads at Newstead or, less specifically, glass bangles) suggests production of some items took place on or around fort sites. This is highly relevant to the understanding of interaction with local populations and especially thorny questions over the meaning of items such as glass bangles (Kilbride-Jones 1938; Stevenson 1956, 1976; Price 1985). It seems increasingly clear that these cannot be pigeon-holed as Roman or indigenous but represent a complex interaction between the two, some types perhaps pre-dating the Roman period, some being preferred on indigenous sites and others on Roman sites.





Understanding of vessel manufacture relies on broader-scale work on glass production in Britain. An updated Scotland-specific work is therefore needed.

A modern and theoretically-sensitive study of glass bangles would be of considerable value; it is over 20 years since the last, partial study was attempted.

#### 5.6.4 Stone

The decorative and epigraphic elements of sculpture and inscriptions have been extensively studied (RIB I; RIB III; Keppie & Arnold 1984), but less attention has been paid their production and geological provenance. Where this has been done it seems predominantly local, but there are instances of imported stone (marble, also limestone) and enigmatic material (e.g. the white sandstone of the Cramond lioness) which may have been deliberately sought out (Hunter & Scott 2002; Hunter & Collard 1997). The Ingliston milestone (Maxwell 1984b), for instance, seems to be a non-local stone.

Stone was also used in a variety of other facets of life. The use of guernstones is perhaps the most obvious, but a range of other stone objects was also used, such as mortars, whetstones, or jewellery in jet or related materials. There has been little attempt to extract information from these (see Allason-Jones and Jones 1994 for what can be achieved with black organic-rich stones). Yet, to take querns as an example, while the bulk was supplied from imported stones from the Rhineland, there was also a range of other quern types, many using more local styles (including Iron Age traditions) and sources; this merits fuller research (e.g. MacKie 2007)

How extensive was decorative stone-carving among auxiliary units? Did it take place at every fort? What was the distribution of carved stone on a site – who had access to it, and who was the imagery intended to

impress? What stone resources were exploited for this? (A question intimately connected to stone for building purposes; see section 5.3).

Research into stone tools and their raw materials' provenance is required. Querns would be a particularly good topic, looking beyond the Rhineland querns to the use of other local or imported stones.

## 5.6.5 Organic crafts

These by their very nature leave less evidence; although Newstead in particular has furnished evidence for a wide range, including textiles, basketry, leather and bone-working (Curle 1911). To understand this material requires a broad perspective beyond Scotland, as the evidence is otherwise too scarce. Study to date of leather indicates repair and remodelling rather than tanning, or any significant production of items such as shoes (van Driel-Murray in prep); there is rather more evidence of bone and antlerworking, but this has never been synthesised.



Figure 27: Roman leather shoe with ornatelynailed sole, Newstead ©NMS



Scotland: The Roman Presence

Researched synthesis of evidence for organic crafts, especially of bone-working, is required.

Any assemblage with good organic preservation should be a priority for study.

#### 5.7 Recruits

One key element of supply was fresh troops. It is assumed that, in common with other newly-conquered areas, young men would have been recruited into the army (e.g. Saddington 2003), although direct evidence is hard to find: epigraphically, there are units of Britons rather than more specifically-named tribes or *civitates*. It is also possible that sons would follow fathers into the army, so there

may have been movement from the *vicus* into the fort. Again this is based on analogy with other areas, although the tombstone of Nectovelius from Mumrills (RIB I 2142) provides evidence of a Brigantian serving in a nominally Thracian unit.

There has been success in tracing recruitment patterns in the Batavian area of the Rhine delta from the study of seal boxes (indicating letters sent home) and military equipment (from returning veterans; Nicolay 2007). However, such phenomena are not found to any significant extent on Scottish Iron Age sites.

#### 5.8 Research recommendations

Summary of main research recommendations

- Synthesis of existing environmental data, and targeting of this aspect in modern work
- Comparative synthesis of supply patterns seen in pottery
- Need for reappraisal of artefact corpora for evidence of crafts
- Study of older excavated assemblages for evidence of local pot production
- Study of provenancing questions for stone used in buildings, sculpture and artefacts
- Questions of metal sourcing, from isotope signatures and study of pollution traces around known mines
- Synthesis of evidence for glass bangles
- Research into recruitment and manning practices



## 6. Changing worlds

## 6.1 Introduction

The presence of the Roman military in southern Scotland and northern England had a major impact on indigenous societies. However, recent scholarship has broadened the scope of enquiry; it was not just the world of the indigenous population which changed, but the world of the fort community, of the soldiers themselves and of the various peoples who accompanied and interacted with them. Increasingly complex understandings are being developed of the individual and the group identities and social worlds which emerged and changed in the frontier zone. In this enquiry, the Scottish material has considerable potential.

Traditionally, social identity in Scotland at this time has been conceptualised as strictly dichotomous at various levels. Chief among these is the Roman / 'native' divide (Barrett 1997a), with Roman being further subdivided into military and civilian (cf James 2001; Salway 1965). Within the latter, there has, furthermore, been a debate about how much of the civilian element consisted of the local population versus immigrants to the region (cf Salway 1965; Clarke 1999b). Discussions of group identity have tended to be formulaic and rather dehumanising, focusing largely on somewhat uncertain tribal unities in the case of the Iron Age (e.g. Clarke 1958; Gillam 1958), and viewing the Roman military presence as rather monolithic (see critique in Haynes 1999; James 2001). More detailed studies have tended to be very focused on epigraphic evidence (e.g. Birley 1980; Salway 1965). Yet theoretical work on the nature of identity has shown the complexity of people's perceptions of themselves and others (e.g. Jones 1997), and the way in which this is both contextual and changing. For instance, at one level the army may be characterised as a single, threatening force by indigenous groups, but within the military itself this would be seen as much more complex; at one level, concepts of a community of soldiers with a shared sense of identity, but also

differences by unit type and origins, age and experience, rank and social status, and so forth. Archaeology presents an opportunity to consider this bigger and more complicated picture by investigating rather than stereotyping the identities of the people and groups involved. Much of this research has focused on a contextual approach to material culture, looking at how and where it was used, and how this compares to other contexts, to begin to tease out some of these complex issues (e.g. Allison 2006a; 2006b, Allison et al. 2005, Cool 2004).

#### 6.2 Social identities

## 6.2.1 Background

The theme of 'changing worlds' addresses the experiences and the impact of Empire on the daily life course of the inhabitants of northern Britain during the Roman period. It deals with the subtle negotiation of social identity, encompassing categories such as age, gender, ethnicity and status (Mattingly 2004). Increasingly Roman frontiers are viewed as pluralistic in nature, socially and ethnically diverse (e.g. Collins 2006; Cool 2004; Gardner 2001, 2007a, 2007b; Hingley 2004; James 2001; Okun 1991; Wells 2005). This is not a new concept; there has long been discussion on who exactly peopled the frontiers (eg Curle 1911; Richmond and Steer 1957; Salway 1965; Birley 1980; Hanson and Maxwell 1986, 182-92). However, little recent work has considered Scottish evidence, with the notable exception of Vivien Swan's work on Antonine pottery (Swan 1992, 1999, 2002). Yet there is substantial potential in this area. The temporal framework of Roman Scotland, with relatively clear phases of activity, has the great benefit of simplifying the dataset intog a series of discrete case-studies.

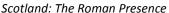






Figure 28: Carriden altar ©SCRAN and NMS

Epigraphic evidence serves to highlight the diverse and complex reality of identity. The altar erected by the vicani, the inhabitants of the village, at Carriden attests to the presence of a civil settlement associated with the fort (RIB 3503; Richmond and Steer 1957). From Shirva (probably deriving from Auchendavy fort) comes the tombstone of Salmanes, erected by his father, who shared his Semitic name and Salmanes has been seen as a Near Eastern trader (RIB 2182). An altar at Westerwood (RIB 3504) was erected by the wife of a legionary centurion, Vibia Pacata; her name suggests she came from north Africa, while her husband was from Hungary. There is also a wealth of information relating to the soldiers themselves in the form of dedications and graffiti; Nectovelius, for instance, buried at Mumrills, served in a unit of Thracians but was himself a Brigantian (RIB

2142) while the dedications of Marcus Cocceius Firmus at Auchendavy emphasise the wide ranging career of officers in the Roman army (Birley 1953).

Place of origin is only one part of an individual's or unit's identity. Swan's research (1992) has highlighted that a unit's various deployments also influenced it. Some units did maintain strong ties with their point of origin, notably Batavians (Roymans 1999; 2004), but, as the Mumrills inscription shows, a unit could rapidly lose any ethnic character in subsequent generations of more localised recruitment where they were garrisoned.

Epigraphy introduces a significant bias, however, as relatively few could afford to commission inscriptions. Instead, recent work has shown that social identity (including ethnicity) had an archaeologically-detectable impact on social practice in the fort (Bruhn 2008, Collis 2008, Cool 2004). This may be achieved by comparing the nature and distribution of assemblages within and between forts, between forts and their annexes and *vici*, with neighbouring frontiers, and so forth.

Ethnicity has been one focus of recent work on the frontiers within Roman studies, and gender another, though few accounts of Roman Scotland have attempted to address this issue in any depth (c.f Allason-Jones 1989, 1999; Allison 2006a, 2006b; James 2006; Van Driel-Murray 1995). Other categories of nonmilitary individuals include traders and craftworkers as well as people drawn to the fort by family connections, and veterans settling in familiar territory (a group increasingly seen as key in spreading Roman culture; see Groot in press a). None of the Scottish vici can be shown to have outlived the military occupation, and it seems these diverse communities vanished with the army.



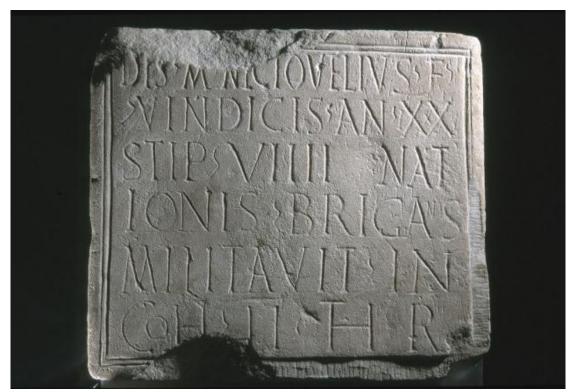


Figure 29: Tombstone of the soldier Nectovilius, a Brigantian who was recruited into the Second Cohort of Thracians. From Mumrills ©NMS

Discussion should also consider the 'common soldiery' (Haynes 1999). They are treated as the default setting, but studies of gender in the frontier zone should also involve the study of masculinity and comradeship (Gardner 2007) and diversity within the 'ordinary squaddie' should be expected and sought.

The definition and identity of these groups, 'the army', 'civilians', 'locals', was not static; in these complex social settings, forms of hybridisation could occur between different social groups in what may be termed a frontier culture (Lightfoot *et al.*1998; Hunter 2008). This would differ in different frontier zones, and comparative work would be valuable.

Other sources of evidence can cast light on frontier mentalities. Ferris (2000) has considered the iconography of Antonine Wall distance slabs, with their stereotypical depictions of naked, conquered barbarians. This offers insights into the perception of its formal enemy by the Roman military, although other evidence of interaction

indicates an altogether more complex picture in reality (see 6.3 and 6.4 below).

#### 6.2.2 Relationships

One way of investigating this complex topic is as a series of relationships (Table 3). Any such summary is inevitably a simplification, but it serves to highlight the diversity of relationships within any frontier community, taken here from the soldier's perspective. Although there are difficulties in investigating detail, many aspects of this are susceptible to archaeological investigation at some level.

Table 3: a model of relationships between people in the frontier zone, from a soldier's perspective

Relations of Such as...

•••

Profession	The army / wider military
	community
	The unit (at various levels –
	unit, century, contubernium)
	Rank
	Social class (careers of
	officers)
	Links to other units and/





	competition, different unit
	origins, traditions & histories;
	detachments
	Veterans
Kin	Current generation of family (common-law wife, children, nearby relations)  Previous generations (veterans; more distant
	relations from homeland)
Sustenance	Traders, craft-workers, suppliers of diverse origins & trades (shops, taverns, brothels etc) Slaves Indigenous population
Occupation	Indigenous population
	(friendly, indifferent, hostile)

## 6.2.3 Advancing the debate

There are a number of ways forward in addressing social identities in Roman Scotland. Existing data provide an invaluable resource: for instance, Swan's (1999, 2009) and Willis's (1997, 1998) work on pottery have highlighted its potential beyond mere dating evidence.

A comparative approach is important here. How do different forts, or different areas of a fort, compare to one another? Can a difference between garrison types, between primary / secondary Wall forts, or between different periods of occupation be seen? An area of great potential is studying the distribution of material, as in Hoffmann's (1994) study of finds in legionary barrack blocks, or Stoffels' (2009) work on the distribution of locally-produced pottery within military contexts. This approach could be readily applied to auxiliary forts to address issues of ethnicity, status, rank and gender. Are the high status goods coming from a specific area? Samian, for instance, was noted to be concentrated in the officers' quarters at Bearsden (Breeze 1977). Pim Allison's use use of GIS to analyse spatial patterns in Roman forts (2006a, 2006b, Allison et al 2005) has highlighted the presence of women in these

social spaces, but the techniques could be expanded to address all the elements of social identity. An important caveat is the need for careful study of the taphonomic pathways of finds into deposits, which in many cases reflect demolition activities rather than use of the space.

Recent excavations present a good opportunity to address these topics: Strageath, Cramond, Elginhaugh, Inveresk and Newstead. In the particular cases of Inveresk and Newstead, the availability of assemblages from both inside and outside the fort walls gives a tremendous resource for comparative study.

Use of the existing resources should illuminate more complex understandings of social identities on the Roman frontier, with analysis of the material from different forts, comparing the types, amounts, proportions and distribution against one another.

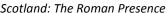
For more recently-excavated sites, the spatial distribution of finds offers tremendous potential, comparing between areas and buildings to see if different social spaces can be identified. Suggested sites include Strageath, Cramond, Elginhaugh, and Bearsden.

Inveresk and Newstead, where excavation has ranged widely across the fort complexes, are particularly rich in potential for study. Publication is awaited for Newstead, and for one of the major Inveresk excavations. These are key sites for further analysis of existing datasets. Such an approach needs to put the Scottish material in context. Comparison is needed to the Hadrian's Wall area and to material from other frontiers around the Empire.

## 6.3 Indigenous communities

#### 6.3.1 Introduction

The impact of the Roman presence and proximity on indigenous societies has long been a major research question. It needs to





be seen in the much wider context of of identities among frontier groups, not simplistically as "Roman" and "native", but the impact on Iron Age societies is a major topic which merits specific consideration.

A number of datasets provide insights into local societies and their workings over this period, such as changing settlement patterns or landscape use. However, it is hard to demonstrate the impact of Rome specifically as distinct from wider indigenous processes, especially where dating evidence is vague. The key source material is the presence of Roman finds on non-Roman sites in Scotland. These have long been a focus of study, with updated catalogues (Curle 1913, 1932; Robertson 1970; Hunter 2001) and regional studies (notably Wilson 1997, 2001, 2003, 2010). Publication of the results of recent PhD theses (Jensen 2009, Campbell 2011) should offer fresh perspectives on these issues.

The lasting impact of Rome has been much debated, with a major division between those scholars who see it as a fundamental period which induced substantial social and political reactions and change in many fields (e.g. Fraser 2009, 116-7), and others who see it as a passing moment of little consequence (e.g. Hanson 2004). Evidence from elsewhere beyond the Limes and from wider anthropological studies seems to support the former view, but the reality will inevitably be complex.

There is a long scholarly tradition of blaming Rome for any change in indigenous society around this time. In some cases this has been valid, but in many cases scientific dating has shown this not to be acceptable — e.g. the abandonment of hillforts, the building of stone-walled roundhouses or the construction of rectilinear enclosures.

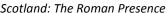


Figure 30: Roman finds from the Iron Age crannog of Lochspouts, Ayrshire ©NMS

# 6.3.2 Differing methods of analysis

Early works did not consider mechanisms behind the movement of this material in any detail. Macinnes (especially 1984) provided a key shift in interpretation, considering the rich Roman finds from the lowland brochs in the context of prestige-goods economies and socially-restricted access to this material. This was a major and highly influential step forward.

The broader study of Roman goods beyond the frontier has been dominated by areas with rich burial finds, such as northern Germany and Scandinavia (Wheeler 1954; Eggers 1951; Lund Hansen 1987). In contrast, Scottish finds are predominantly fragmentary settlement finds, which has led to their significance often being overlooked or understated. Indeed, Alcock, from an early medieval perspective, argued that much of this material was residual, and may have circulated as tokens or charms long after the Roman period (e.g. Alcock 1963; Alcock & Alcock 1990, 115-6). Hunter (2007a, 11, 91) has argued against this, seeing a clear selection of material types whiche make little sense as fragments but form a coherent pattern if viewed as the debris from complete





objects. Thus have methods been developed to use the presence or absence of types, categories and the variety of material present to tease meaning from these settlement fragments (Hunter 2001).

There is no doubt that the taphonomic issues are complex, a topic considered for ceramics by Campbell (2011). Some material was clearly long-lived, and Wallace (2006) has usefully noted that elongated use-lives are found regularly, especially for samian, within the Roman world. Samian seems to have been a particular target of reworking and reuse in indigenous contexts. The picture is undoubtedly complex, and close attention to taphonomic questions of material condition and context are critical.

Current approaches view local populations as an active agent in this interaction, and Roman material as a powerful social tool and catalyst (e.g. Macinnes 1984; Hunter 2001, 2007a). Key issues for consideration are the range of material and its social impact. The widespread distribution of Roman finds indicates its desirability to local societies across Scotland (suggesting "resistance" is too simple a concept), but clear signs of local variation probably reflect local social differences and attitudes. There is a marked selectivity in the material, with a strong bias towards types which were locally useful in displaying social status (notably jewellery and feasting gear). There are also signs of emulation or other forms of copying, for instance in styles of finger ring or rare ceramic vessel forms which show the influence of Roman forms (Campbell 2011; Hunter forthcoming).

Although in some areas Roman material was clearly widespread, it was not always abundant, and in southern and eastern Scotland shows a marked focus on only a few sites (Hunter 2001). These may be seen as local or regional power centres or elite sites – although regional variation indicates that the nature of any such 'elites' varied widely. Here Roman material serves a valuable role in making local social systems visible.

Detailed analysis has suggested changing patterns through time, and arguably the deliberate 'targeting' of particular areas or groups for Roman diplomatic attention, possibly in the face of local instability; this has been linked to social collapse in NE Scotland and the rise of the Picts (Hunter 2007a, 2010).

evidence The increasing for interference in local politics, and the apparent desire for Roman goods on the part of local inhabitants, suggests this relationship is likely to have had significant social effects, and continuing study will undoubtedly see much controversy to come. Macinnes' discussion of the lowland brochs remains seminal (1984) and these sites and Traprain Law (Jobey 1976; Hunter 2009) are pivotal to understanding interactions at the upper end of the scale. In the case of Traprain, the existing archives hold considerable potential for renewed analysis, while further fieldwork would be of great value. The most recent campaigns confirmed the virtual absence of Iron Age activity before the Roman period; how then should its emergence and pre-eminence in the Roman Iron Age be understood? Should parallels for power centres emerging in client kingdoms, such as the oppidum of Stanwick (N Yorks), be sought?

The investigation of "stray finds" has a key role to play, in giving them an archaeological context beyond simply strays, and (in some cases) in providing springboards to much fuller investigation and consequent information. The case of Birnie (Moray) demonstrates this, where an outwardly unprepossessing site was marked out by the chance metal-detecting find of a substantial hoard of denarii, and subsequent excavation created a rich picture of contacts at the site (Hunter 2007c).

Roman finds also had value as raw material sources. Remelting and reuse was clearly demonstrated by Dungworth's analysis of copper alloys (1996), and is often suggested as the source for the glass for beads and





bangles; it is very likely that Roman silver was also recycled in the later Roman / early Medieval period (Stevenson 1956). Adaptation could also include reshaping Roman vessels to more locally-useful forms or adapting samian sherds as polishers or pigment sources.

Comparison with other parts of the Roman frontier and analogy to frontiers of other periods, are important to contextualise and interpret the Scottish evidence of purpose, function and interaction.



Figure 31: One of the late second century denarius hoards from Birnie, Moray. ©NMS

An updated and discursive corpus of Roman material from non-Roman sites is a key desiderata; such a volume has been commissioned for the Römisch-Germanisch Kommission's "Corpus der Römischen Funde im europäischen Barbaricum", though further funding is still required.

Detailed study of specific artefact classes by specialists can cast important fresh light on apparently intractable or supposedly well-known material (e.g. Erdrich et al 2000; Ingemark in press).

Lists of coin finds in Scotland have been an invaluable resource back to the days of Haverfield and Macdonald. The National Museum no longer employs a numismatist,

leaving only one specialist in Scotland and putting this tradition at risk. Efforts are needed to ensure a continuing publication of the material.

The investigation of the impact of different frontiers (e.g. Hadrian's Wall of Antonine Wall), the differential and long-term impact either side of a frontier (e.g. Hadrian's Wall), and broad comparative perspective to other frontier areas

It is vital that the Roman material is considered in context, not in isolation – Roman material forms but one part of indigenous material culture and needs to be considered alongside this.

The life-cycle of the Roman material (covering evidence for its arrival, reception, modification, reuse, emulation and deposition) needs closer attention than it has traditionally received. There is a need for close study of taphonomy, from both object condition and site context, to understand life cycles of the artefacts.

Traprain is a pivotal site for understanding interactions with the Roman world. Full publication to modern standards of the existing assemblage, and further fieldwork to clarify the sequence and expand knowledge of the site, are long overdue. Why did Traprain become so prominent in the Roman period?

Significant stray finds should be followed up in the field wherever possible in order to retrieve their context. This need not always involve excavation — but study of existing aerial photos, geophysical survey results and fieldwalking can provide an understanding of the setting of such finds, and in many cases guide attention to sites which were previously unknown.

# 6.4 Two-way impacts and changing cultures

Impact went beyond the movement of Roman goods, and was not a unidirectional process. It has been argued that the apparent growth in



production of objects adorned with 'Celtic art' around the Roman conquest is an expression of indigenous identity in the face of the threat of Rome (MacGregor 1976, 177-8; Hunter 2007b). This example also highlights the complicated interactions involved - for such Celtic art became a crucial influence on the hybrid styles of material culture (especially decorative copper alloys) which emerged in the frontier zone. These Romano-British art styles can be seen as a form of frontier art, the indigenous art no longer 'barbarian' or 'Celtic' but a key part of emergent frontier culture, used on both sides of the frontier by military, civilian and indigenous groups (Hunter 2008). Investigating this material, and trying to understand its development and meaning in different contexts, is an important way to understand the changing societies of the frontier zone.

There are also specific examples of material moving from barbaricum to the frontier. Petrographic analysis of so-called 'Local Traditional Ware' pottery (which used Iron Age technology but was influenced by Roman forms) has shown that finds from the east end of Hadrian's Wall came from north Northumberland (Bidwell & Croom 2002, 169-172); it was perhaps sought after for its contents. Scottish assemblages should be checked for similar phenomena. There is evidence of the movement of other smallscale luxuries south, such as ornaments of black organic stone and perhaps of multicoloured lithomarge (Allason-Jones & Jones 1994; Stevenson & Collins 1976).

Styles of 'Romano-British' material culture, such as metalwork (e.g. brooches) and glass bangles, merit renewed study in the light of recent theoretical approaches to investigate the contexts in which they emerged.

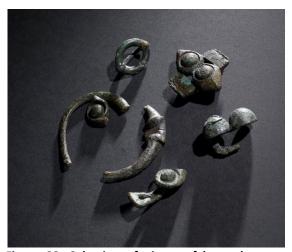


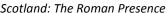
Figure 32: Selection of pieces of horse harness decorated in styles of Celtic art from the Roman fort of Newstead ©NMS

## 6.5 The longer-term impact of Rome

There have been very divergent views of the impact of Rome in both the short and the long term, with some scholars seeing it as a passing phase of little significance, and others an interaction which caused major change. This remains an area of active debate, but there are grounds to argue that a number of key changes appear in these centuries.

The emergence of the Picts in north-east Scotland has been one contentious area. Some argue they appeared as a confederation caused by the threat posed by Rome, while others have seen a more catastrophic effect of Rome's political interference undermining existing societies in the area (perhaps due to over-dependence on prestige goods), with the Picts representing re-emergent societies in the aftermath of this (Mann 1974; Hunter 2007a). This remains an area ripe for further research, but most scholars agree that the proximity (and perhaps the interference) of Rome was fundamental to the ethnogenesis of the Picts. Fraser (2009, 375-9) has suggested a conscious rejection of romanitas among the later Picts of the seventh-eighth centuries, and this may reflect very different views of Rome than those of groups to the south.

Recent scholarship has not considered the possible effects of Rome in the late Roman





and post-Roman centuries in southern Scotland extensively, although there are hints of the emergence of larger-scale polities focused on a small number of key sites, such as Dumbarton Rock and Edinburgh Castle (Hunter 2010. The question of whether this represents political amalgamation remains to be investigated.

In the longer term, a number of facets of society in the Early Medieval period drew their origin or legitimacy ultimately from the Roman world – most visibly literacy (both the use of Latin and the origins of ogam), inscribed stone memorials, and Christianity. Similar phenomena are shared with many post-Roman societies (e.g. Wickham 2009; Charles-Edwards 2003). There are potentially other, more subtle traces of long-term effects. Campbell (2007) has suggested the use of imported glass and specialised pot forms such as mortaria in western Britain in the seventh century reflects a continuing desire for habits considered as Roman. The reuse of Roman stone in hillforts in burials and souterrains may reflect a similar desire to evoke or incorporate something of Rome in contemporary society (Foster 1998, Hingley 1992, 29).

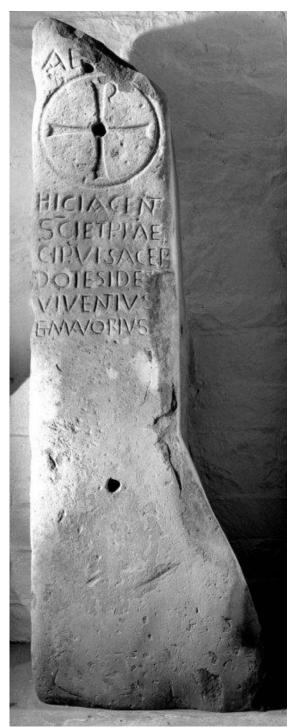
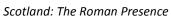


Figure 33: Latin inscribed stone from Kirkmadrine ©RCAHMS

More pragmatic long-term benefits included the recycling and reuse of Roman material culture; it had an immediate effect on copper alloy supplies (Dungworth 1996), and in the case of silver its impact was apparently felt for centuries (Stevenson 1956b). In silver, one of the most significant prestige materials of the





Early Medieval period, the long-term legacy of Rome is very visible, whether conscious or not.

The infrastructure of Roman Scotland also had a long-term impact. The Roman road system guided communication routes into the medieval period and beyond (e.g. Hardie 1942) while, as noted in section 4.6, Roman sites often saw later reuse for churches and castles. Research into this area is badly needed; were these intended to cast the occupants as the inheritors of Rome's mantle?

There is much scope for further research into the longer-term impact of Rome, testing some of the ideas noted above. It is an overarching area of research at what is too often regarded as a disciplinary boundary. The changing societies of Scotland (especially southern Scotland) need to be considered in the context of new views on the end of the political use of Hadrian's Wall, and the evidence for

continuity of power at many Wall forts, with the garrison's role shifting from soldiers of Rome to local warband (Casey 1993; Wilmott 2000; Collins 2009).

Scientific analysis could usefully consider the impact of Roman raw materials, especially in the transfer of copper alloy and silver.

Renewed study of the few silver hoards containing Roman silver, looking in particular at the uses and treatment of the material rather than the art-historical approaches which have dominated so far, would provide fresh insights into the role of Roman material in the post-Roman world.

The later reuse of Roman sites merits detailed study with future excavation projects always placing this possibility prominently in their research design.

#### 6.6 Research recommendations

Summary of main research recommendations are as follows:

- There is tremendous potential for using Scottish data in applying theoretically-framed questions to issues of identity and social space on the frontier. This could be applied to both site complexes which have seen extensive excavation (e.g. Newstead, Inveres) or on a broader, comparative basis between sites.
- An updated and authoritative catalogue of Roman finds from non-Roman sites is highly desirable. Such a catalogue must incorporate specialist insights into the material, and pay close attention to issues of taphonomy.
- The Roman finds have to be integrated in an understanding of the Iron Age context.
- Traprain Law remains pivotal but poorly understood to relations with the Roman world; reappraisal of older finds and fresh excavations have the potential to revolutionise our knowledge of this key site.
- Study of hybrid forms of material culture, such as glass bangles, shows great potential for understanding these changing worlds.
- A long and integrated view is needed of the long-term history of Roman effects.



#### 7. Roman Scotland and the Roman world

#### 7.1 Introduction

In every way, Roman Scotland was part of the Roman Empire and can only be fully understood within that framework.

Roman Scotland offers the study of the Roman Empire several significant elements:

- The literary evidence, in particular the Agricola, which offers a unique account of a Roman province, and the unique references to the building of Hadrian's Wall and the Antonine Wall.
- The survival of the earthworks of Roman military installations, in particular camps, uniquely among all frontier provinces.
- The division of the Roman intervention into separate episodes which aids their study.
- A continuing history of research, as exemplified by the remarkable results at Kintore camp and Elginhaugh fort.

The northern frontier brought notable generals to Britain. This was partly because the army of Britain was so large, but also related to the fact that the conquest of the island had not been completed. These senators, who together with other senior regimental commanders and officers were part of the military (and civilian) class, held each post for about three years before moving on, sometimes literally from one end of the Empire to the other. In this way, a certain level of homogeneity was created throughout the whole Roman army. Retired governors might serve on the Emperor's council, reinforcing links. Units, too, moved

into and out of Britain, sometimes bringing to the northern frontier their own particular traditions. This can be seen especially with the introduction of African styles of cooking in the 150s and, through that, changes in pottery production (Swan 1999). Roman Scotland was also part of a wider trading network.

It was thus on every point of the scale from imperial politics and military defence to the provision of exotic foods such as figs and coriander that Roman Scotland was linked to the Roman empire.

Obversely, knowledge of the Roman Empire aids an understanding of Roman Scotland, 'evidence by analogy' in Rivet's phrase (1958, 27-8). That evidence illustrates every aspect of the operation of Roman Scotland. An appreciation of the cursus honorem of Rome's ruling class allow us to assess better the individuals serving on the northern frontier and even date their service in Britain and other events when independent evidence does not exist. An understanding of Roman recruiting practices can be transferred to Britain, amplifying the meagre local evidence. Roman documents from elsewhere in the empire, and particularly the Eastern frontier, can be used to illuminate life on the northern frontier. We can be sure that the Roman army in Scotland operated in the same way as the Roman army elsewhere, sending annual reports to Rome, maintaining files on soldiers and horses and preparing timetables and records of work. Inscriptions from elsewhere allow the better interpretation of local inscriptions, as illustrated by interpretation of the recently discovered Carberry tombstone (Hunter & Keppie 2008; Tomlin 2008, 372-4).



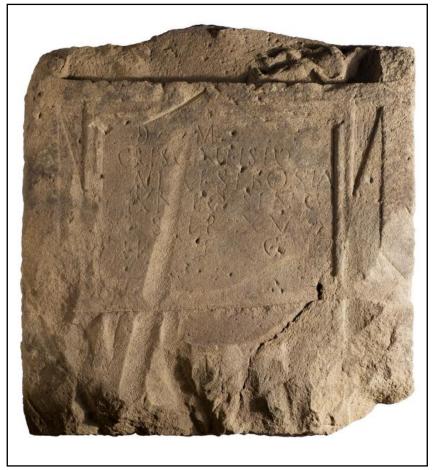


Figure 34: Tombstone of the cavalryman Crescens, from Carberry (E Lothian). The style of tombstone can be identified from complete examples elsewhere, while other inscriptions provide more information on his unit, the Ala Sebosiana, and the *equites singulares*, the Governor's bodyguard. ©NMS

## 7.2 Research recommendations

• The evidence outlined elsewhere in this document should demonstrate that Roman Scotland is well-placed to take part in the current debates, for example, on ethnicity and identity. It also has considerable evidence to bring into play in discussion on the purpose and function of frontiers. There is therefore a proven need for researchers involved in the study of Roman Scotland to keep engaged in wider debates and networks.



## 8. Research and methodological issues

#### 8.1 Introduction

The volume of work that has been undertaken in Roman Scotland since the late 19<sup>th</sup> century has built up a substantial corpus of information about individual sites and artefacts. Antiquarians have been intrigued by the Romans for centuries, whether recording sites in the field or collecting artefacts for their collections (see 2.2 and 2.3 above). The Roman period is data-rich compared to many other periods; the increasing availability of such data means that it has the potential to offer exciting and challenging future research opportunities, but poses practical issues which are discussed below.

## 8.2 The Challenge of fieldwork

Today, much of the new raw material for study comes from developer-funded archaeology. This puts a heavy responsibility on local authority archaeologists, who often have to deal with conflicting priorities. In terms of immediate practical issues, the following are highlighted.

- Planning controls should consider as standard the area within 1km of a Roman fort site as sensitive and worthy of evaluation.
- Camp interiors should be excavated as standard, on a large scale, and the exterior sampled as well as the ditch.
- Excavation of Roman sites in order to maximise the data outcome is expensive. There are often massive inventories of finds (including quantities of ironwork, expensive to conserve), and environmental and other samples (all requiring specialist treatment). Post-excavation work can be long drawn out and very demanding in human and material resources. Recent years have seen a number of worrying cases where the

recovery of data or its post-excavation treatment has been inadequate, and some cases sadly are known where material was barely looked at before being consigned to archive. This is unacceptable.

• A programme of publishing backlog Roman excavations is badly needed.

## 8.3 Chronology

The Scottish material has a great value in terms of building chronologies, as it relates to a small number of relatively well-defined events. There are problems, of course, especially where Flavian and Antonine sites are superimposed, but this is less of a problem than sites in northern England with several hundred years of continuous occupation.

Yet there are still problems, not least in the dating of ceramics, where the long tradition of study tends to involve a degree of circular argument focused on correlation with assumed historical events at specific sites. There are now examples where typologically 'early' forms saw later use in local ceramic industries. This is compounded by the problems in what exactly an object's "date" is - its dates of manufacture, use and deposition can be significantly different. Going's (1992) analysis of broad patterns of pottery production suggested that there were broader economic cycles which led to times of glut and times of famine, the latter correlating with periods when 'old' pottery would stay in use for longer. These significant concerns have not been followed up in any detail.

There has been valuable work in some areas, notably coins, where the efforts of Casey and Reece to construct overall pictures of coin loss in Roman Britain have given patterns against which site sequences can be assessed. Similar work has been done for samian (e.g. London; Marsh 1981), and some attempts at similar



approaches for brooches (Haselgrove 1997; Plouviez 2008; Mackreth 2011 is a major step forward). Re-examination of Hartley's 1972 work on samian in the light of new finds, and with more attention to plain wares) would pay dividends.

A reappraisal of the dating evidence for the coarse wares would be very valuable. The Scottish assemblages offer quite closely-defined assemblages chronologically which should be the focus of more, wider attention.

# 8.4 Access to information

#### 8.4.1 Databases and collections

A wealth of information is available in museums and archives around Scotland. Some of these have made their information available through their own on-line databases, and many more have contributed to SCRAN<sup>6</sup>. national database of sites monuments for Scotland, Canmore<sup>7</sup>, available on-line, and contains a wealth of information about Roman Scotland and an index to the collections held by RCAHMS. Other information is also available in local sites and monuments records, many of which are on-line and/or have contributed their sitebased information to PASTMAP<sup>8</sup>.

Although the recording of information about timelines and periods in Canmore is scant, the Roman period is fortunate to have detailed period attribution, making it easy for the researcher to find information about Roman [military] sites in Scotland. Canmore also includes occasional references to Roman artefacts, usually where these were recorded by the Ordnance Survey Archaeology Division prior to 1983 (when its functions transferred to RCAHMS) or have been recorded in Archaeology Scotland's annual *Discovery and Excavation in Scotland* publication.

Museum collections are another useful example, as few people are aware of the full extent of holdings in museum stores, and access to the information is often poor (the Hunterian's web catalogue<sup>9</sup> being a notable exception). There is no Canmore or PASTMAP equivalent for artefactual data. Whilst several museums have on-line databases, these are not always comprehensive or easy to search, and many are partial web-solutions provided by Scran. Furthermore, not all collections index their material by place. A pilot project looking at linking artefact and site records was undertaken by the NMS and RCAHMS in 2007 (Cowie and McKeague 2010), and showed the value of this as a future project.

While resources are available individually, the linking of them would greatly enhance their potential. For instance, further work in georeferencing museum collections (especially findspot information) to RCAHMS Canmore data would be of great value.

Older museum collections are often inadequately catalogued, while the scale of more recent excavation assemblages means they are often slow to be integrated into museum databases. Targeted programmes of re-cataloguing key assemblages and the availability of archive grants from developerfunded excavations to allow cataloguing would be highly valuable.

#### 8.4.2 Mapping programmes

Many of the concerns to do with access to mapping information are relevant to all periods and types of archaeological data with 'mapping' inevitably referring now to digital mapping.

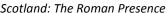
There is a wealth of information available, and much can be gained from restructuring and bringing together the existing data. The Antonine Wall event mapping programme and Inveresk event mapping (see below) have

(http://canmore.rcahms.gov.uk/)

(www.PASTMAP.org.uk)

<sup>6 (</sup>www.scran.ac.uk/)

<sup>&</sup>lt;sup>9</sup> See <a href="http://www.huntsearch.gla.ac.uk/">http://www.huntsearch.gla.ac.uk/</a>





highlighted the benefits of such an approach, yet these databases need to be constantly updated rather than become relics of when they were created. Standards have recently been created for polygonising data<sup>10</sup> and the 'Defining Scotland's Places' pilot project has the potential to offer better depiction of large Roman complexes in the future. While there has been a long tradition of publishing information on archaeological interventions of Roman remains (e.g. 'Roman Scotland in 200x' in *Britannia* or roundups of recent excavations on the Antonine Wall in *PSAS*), the next logical step would be to transfer this information more fully into a spatial database.

For the nomination of the Antonine Wall as a World Heritage Site, the RCAHMS produced detailed large-scale mapping of the Wall zone. This representation is based largely on the 1980s OS survey of the Wall, with modifications from more recent programmes of aerial and geophysical survey and excavations, and has highlighted the need for a more up-to-date survey with modern methods such as LiDAR, the capabilities of which could be highly beneficial. In order to detect the slight and relatively small features that would greatly enhance understanding of the monument, LiDAR resolution would have to be greater than that normally undertaken, to at least sub-metre accuracy.

Geophysics has long been noted as a useful technique to increase understanding of Roman features in Scotland (see section 2.4). The work conducted by GSB and Glasgow University on Antonine Wall forts, annexes and areas immediately outside of these features, has highlighted the potential, the difficulties, and the need for further work. Given the ephemeral nature of the buried archaeology, there is a potential for refinement and development of methods better suited to illuminating such remains.

<sup>10</sup> See <a href="http://www.rcahms.gov.uk/historic-environment-polygonisation-standards-scotland.html">http://www.rcahms.gov.uk/historic-environment-polygonisation-standards-scotland.html</a>

The recent success of large-area geophysical survey on Roman camps (Hüssen et al 2009) highlights the potential and need for further work on these features. Whilst the results of these are now more readily available (thanks to Canmore and the OASIS geophysics module), there is still a need to make and maintain the raw data from such work accessible rather than just the processed results. Not only can different techniques sometimes bring new information to light, but also future developments in software may necessitate the reprocessing information.

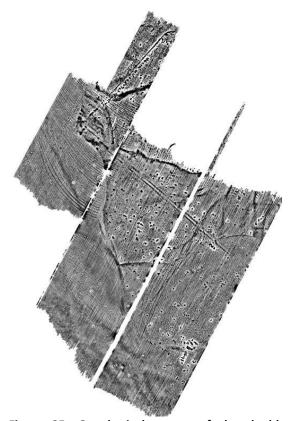


Figure 35: Geophysical survey of the double enclosure, previously to be a Roman fort but perhaps more temporary nature, on haughland at Dalswinton Bankfoot. To the top of the image. part of western ditch and rounded corner of a Roman camp can with a line of pits, possibly ovens, just inside the perimeter. Image courtesy of Dr Winkelmann, Dr C-M Hüssen, Germany, produced in partnership with Prof W Glasgow University Hanson, and Dr R Jones, RCAHMS.





Integration of existing spatial data in electronic form, and creation of layers of known Roman features for download or display on online GIS. The creation of such facility would be a straightforward process involving systematic selection and/or digitisation of the current information. Such a programme would highlight, for example, the poor state of current knowledge of the Roman road network in Scotland.

LiDAR survey of key monuments, such as the Antonine Wall and Ardoch, would address specific research questions but also highlight the great potential of the technique.

Refinement of geophysical techniques to correspond with the pragmatic problems of Antonine Wall sites in particular is needed.

# 8.4.3 Multiple unit interventions in single sites

Developer-funded archaeology has had a number of repercussions for archaeological studies in Scotland. The most substantial is that many sites never excavated before are now being recorded. This has led to a glut of new information that needs to be processed and incorporated into existing frameworks of understanding. The second is that this work is highly variable in scale, quality and extent. The greatest challenge is bringing this information together in a usable fashion. Larger projects often have more substantial post-excavation work undertaken and, given the funding involved, have better research-driven frameworks; whilst the smaller interventions are, by financial necessity, often not fully integrated within any larger overview. The Roman fort and civil settlement at Inveresk is a good example of this, with projects running over different carried out in very different circumstances and under different temporal and financial pressures (Bishop 2002). This has led to discrepancies in the records which can often be difficult and time-consuming to reconcile. The Inveresk event-mapping pilot project offered a useful solution to some of the issues raised by multiple interventions at a single site (McKeague 2005), and was expanded to cover interventions along the Antonine Wall (Jones 2007). By bringing together the spatial information from these different interventions, a greater amount of information is gained than was possible from their individual study. The methodology highlights the need to keep information flowing and for the parties involved to archive all of their data, and specifically the spatial elements.

Annual round-ups in Britannia and regular round-ups of Antonine Wall interventions in PSAS are valuable in making data more readily available and should be further encouraged/expanded.

Funding should be sought to maintain such event-mapping programmes at RCAHMS as a matter of course in the normal course of archive deposition.

# 8.4.4 Is a "Roman Frontier in Scotland" publication needed?

Despite the popularity of the Romans and their role in the primary school curriculum, more academic publications rarely trouble the bestseller lists. In order to keep, promote, maintain and update a 'Roman Frontier in Scotland' resource, it is best served in digital format through existing web resources such as Canmore. There are already several introductory guides to the Roman remains in Scotland (e.g. Keppie 2004b), but a more detailed published introduction would be valuable.

Resource providers (RCAHMS, NMS, Hunterian Museum and others with significant Roman collections) should work together to provide an accessible information portal into Roman Scotland.



## 8.4.5 Backlog publication

Roman Scotland has a wealth of information gleaned from excavations and survey over the years. Whilst such a vast body of data should be an attraction to researchers, it appears that there is a tendency for it to deter many younger researchers, who see the daunting quantity of data and previous scholarship but overlook its potential. In part this comes from the training in universities, but it also shows the need for synthetic works which draw together such material for a wider audience.

Another problem is gaps in the data; researchers may be put off by access to this information, with far too many excavations remaining unpublished (the main sites are given in Table 4). There are additional small-scale excavations by others, including Anne Robertson, J Kenneth St Joseph and Gordon S Maxwell, that have not been written up for publication.

Some of the excavations remain outstanding due to delays in the production of specialist artefact reports. This problem is compounded by the age profile of many specialists, and the tragic recent loss of the two primary coarse pottery specialists for the Roman North, the late John Dore and Vivien Swan.

Modern excavations usually produce data structure reports (often referred to as 'grey literature'), digital versions of which are becoming more and more accessible thanks to on-line data sources such as the Archaeology Data Service's Grey Literature Library, and RCAHMS' Canmore database. However, a cataloguing backlog for many reports results in their invisibility to researchers, who can often only identify these works thanks to summary reports in Archaeology Scotland's annual publication Discovery and Excavation in Scotland. Furthermore, not all excavators submit their work to this publication and they should be encouraged to do so, and to use the OASIS transfer mechanism to enable their grey literature reports to receive a wider audience. There is also a cataloguing backlog in museums relating to the artefacts recovered through such projects, hampering future research.

Table 4: major unpublished Roman excavations

Site	Date / excavator
Loudoun Hill	(1938-?, St Joseph)
Milton	(1938-50, Clarke)
Broomholm	(1964? Daniels)
Stracathro	(1969, Robertson)
Cardean	(1966-75, Robertson)
Croy Hill	(1975-8, Hanson)
Camelon	(1975-7, 1979,
	Maxfield)
Bearsden	(1973-82, Breeze)
Monktonhall	(1985, Hanson)
Newstead	(1987-90s, Jones)
Falkirk	(1991, Bailey)
Kirkpatrick-Fleming	(1991, Leslie)
Roman camps	
Inveresk west	(1991-3, 1999-2001,
defences	Leslie)
Drumlanrig	(2004, Time Team /
	Wessex Archaeology)

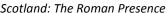
## 8.5 Specialists

There is a UK-wide problem in developing artefact specialists, with many specialisms dependent on a small number of specialists. This is not a problem which can or should be solved on a Scottish basis. It is, however, an area where there is a great desirability to having specialists familiar with the frontier zone, both Scottish and northern English. The issues are particularly acute with pottery and coinage. In recent years, AHRC collaborative doctoral awards and IfA workplace bursaries have proved valuable initiatives nationally to develop material culture skills.

The Roman Northern Frontiers Seminar provides a valuable forum for discussion.

Material culture and its analysis should receive greater emphasis within University archaeology courses.

The AHRC and IfA initiatives are worthy of further development, and attempts should be





made to ensure that Roman material is included in such projects.

The continued application and publication of interesting approaches to material culture is perhaps the best advertisement for specialist work.

## 8.6 Approaches to artefacts

For a long time finds were valued primarily for what light they could cast on a site's date, with other potential information a long way behind. Although this is gradually changing, the publication of excavation assemblages still lags behind best practice south of the Border (e.g. Crummy 1983; Cool & Baxter 1999; 2002; Cool 2004), although Swan's work on the ethnic analysis of pottery is an example of international quality which demonstrates the potential of the material (Swan 1999). A particular benefit of the Scottish material is how tightly dated much of it is, and this feature merits more attention, for it makes of considerable Scottish material international importance.

Current trends to synthetic or summary reporting, with data relegated to archive, make the detailed study of finds increasingly difficult – ironically, just at the moment when techniques (such as correspondence analysis; Cool & Baxter 2002) are becoming available to analyse them, and web-based databases offer a means for wide access to data.

New work does not need to wait for new excavations; there are assemblages excavated to a good standard which have never been analysed beyond basic consideration of chronology and unit represented. Strageath is a case in point, where the stratigraphic and spatial control provides a most valuable resource untapped at the time of excavation.

More adventurous approaches are required in finds analysis, following and developing best practice elsewhere (e.g. Cool & Baxter 2002)

Synthetic work on groups of finds (pottery, brooches etc), should developed, taking advantage of the good dating framework.

Full study (to recognised guidelines where available; e.g. Roman Pottery Group, for ceramics) and publication of artefact assemblages, whether in print or on-line (preferably through the Archaeology Data Service) should be standard practice.

# 8.7 Public engagement

The great public interest in the Roman period is seen in the many visits to museums and field monuments, attendance at lectures and sales of books. The presence of the Romans on the school curriculum means that it is easy to enthuse children in the topic. There is a need for more and better resources to allow the wider public to engage with the material, and the idea of a "Roman frontier in Scotland" resource would play a key part in this. It is also critical to engage and inform the public about some of the exciting new perspectives mentioned in this topic; this will build enthusiasm and support for the topic.



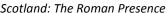
Figure 36: Community excavations at Cramond fort, image courtesy of AOC Archaeology.



# 8.8 Research recommendations

The research recommendations are as follows:

- Development control archaeology is critical in producing the record for study, and should make the case for more work in the environs of forts.
- The tightly-dated nature of the occupation horizons in Scotland offer dating horizons of broad international importance.
- Linked databases, including public-friendly portals, are key to disseminating information on Roman Scotland.
- Compilation of diverse small-scale interventions in specific sites is vital to understanding them.
- Backlog publications remain a major drain on intellectual efforts in the area, and require further efforts towards completion.
- Full study and publication of finds assemblages is key to understanding their value.





#### 9. Conclusions and recommendations

'The British military field ... presents rare opportunities to the unprejudiced enquirer'

(Richmond in Hawkes & Piggott 1948, 58)

The foregoing sections have ranged widely across the field of Roman archaeology in Scotland, and have hopefully demonstrated the substantial leaps forward from the focus on military dispositions and chronology of earlier generations, although this is not to deny the importance of such topics, which play to key strengths of the data. In attempting to draw these ideas together, a number of key strands for research have been identified.

# The value of data

Roman Scotland produces rich, dense data which should be celebrated and used to the full. Too often the data-rich Roman period is stereotyped by outsiders as obsessed with arcane detail, yet this very richness provides an invaluable resource to engage with detailed data-informed interpretations. The wealth of information allows more complex interpretations to be discussed and critiqued. The minutiae of the data, the traditional concern of Roman studies, should also be engaged with; so much is known of the pattern of Roman forts and camps, for instance, that it is of great value to try to fill the known gaps. The shifting chronology of contact makes it possible to look at the details of frontier systems (and thus the meaning and purpose of frontiers) in a way rarely possible in such detail elsewhere. The existing dataset also contains material which has barely been tapped - such as surveys of forts (for questions of landscape setting, for instance) or the rich finds assemblages in museums. Something of the potential of these resources has been explored above.

# Multiple landscapes

Roman military sites should be seen in a broader landscape context, looking beyond the fort, as absolutely fundamental to future study. We have explored aspects of the interlocking landscapes which may be explored in this document, including links to non-military landscapes. To do justice to this resource requires two main things:

Development-control archaeology should look as standard in the hinterland of forts (up to c.1 km from the 'core'), even where nothing is currently known. Examples such as Inveresk, Newstead and Cramond show the density of activity around such nodes, and it should not be assumed that these are exceptional.

Integrated approaches to military landscapes, bringing in topographical and aerial survey, LIDAR, geophysics, and the use of stray and metal-detected finds, as well as fieldwalking and, ultimately, excavation.

# The Over-arching questions

There are several focal areas where Roman archaeology in Scotland can contribute significantly to much larger debates.

- Integrating the Roman presence in the story of what went before and after
- Considering the effect on contemporary indigenous societies, to develop more oomplex perspectives on what the impact of (and on) Rome was, and the reactions to this
- Linking Roman Scotland and its rich data set to wider theoretical perspectives (e.g. current concerns with issues of ethnicity and identity)
- Keeping Roman Scotland integrated in wider Roman frontier studies, both drawing from and adding to perspectives in other areas. The tight chronological framework of Scottish sites is a particular strength here.



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