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Roman Camps in Scotland

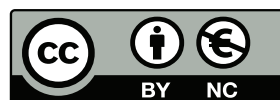
Rebecca H Jones

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ROMAN CAMPS IN SCOTLAND

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Rebecca H Jones

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*This volume is dedicated to my parents,
Allen and Janice.*

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Preface

The book is derived from research undertaken for the degree of Doctor of Philosophy at the University of Glasgow, which was awarded in 2006. It is intended to complete the triplet of volumes on Roman camps in Britain (England: Welfare & Swan 1995; Wales: Davies & Jones 2006) as well as perhaps draw together some common strands from the three, noting that Scotland has been gifted with a plethora of camps, including the largest currently known in the whole Roman Empire. These are detailed in the gazetteer. My original thesis included two chapters which have not been incorporated into this volume: one on the principles and functions of camps, including layout and holding capacity, which is partially published elsewhere (Jones forthcoming 2011a), and the second on Antonine Wall camps, which was published in the proceedings of an International Congress of Roman Frontier Studies (*Limes Congress*) (Jones 2005b).

Acknowledgements

I am grateful to my employer, RCAHMS, and to the Arts and Humanities Research Council for enabling me to complete my research at the University of Glasgow. In particular, I would like to thank my supervisor, Professor Bill Hanson, and many students and academics, including Dr Ioana Oltean, Dr Lorna Sharpe, Dr Kenny Brophy and Professor Stephen Driscoll. I am also grateful to my examiners, Dr Alan Leslie and Professor Ian Haynes, for helpful comments and advice.

I also thank numerous colleagues at RCAHMS for their support while this research has had a long gestation. The maps and plans in this thesis were derived from data using the RCAHMS ArcGIS software, and RCAHMS have kindly provided most of the aerial views in this volume and facilitated the negotiation with the Ordnance Survey for use of their maps. I will inevitably miss out some colleagues, and to them I apologise, but in particular I would like to thank Peter McKeague, Kevin Macleod, Roger Mercer, Diana Murray, Jack Stevenson and the late Dr Graham Ritchie for their support; fieldwork on camps with RCAHMS was conducted with Georgina Brown, James Hepher, Strat Halliday, Peter McKeague and Adam Welfare; aerial reconnaissance was with or by Marilyn Brown, Dave Cowley and Gordon Maxwell; air photographs were taken or copied by Robert Adam, Tahra Duncan-Clark, Anne Martin and Derek Smart; and other fieldwork was with Dr Simon Gilmour.

I am also grateful to staff in various archaeological units who have regularly supplied details about unpublished excavation results, including Dr Alan Leslie at GUARD, Bruce Glendinning at CFA Archaeology, Tom Rees at Rathmell Archaeology, and Murray Cook and the AOC Archaeology Group for access to information about their extensive excavations at Kintore.

The first triumvirate to whom I am indebted comprises the late David Ferraro for stimulating my interest in classical archaeology, the late Charles Daniels for introducing me to Roman camps and Roman Scotland in general, and Gordon Maxwell for nurturing and expanding my interest in the subject, introducing me to aerial survey, generously giving me numerous books and always being on the end of a telephone. The second triumvirate comprises my supervisor at Glasgow, Professor Bill Hanson, my mentor and co-author of *Roman Camps in Wales*, Dr Jeff Davies, and Professor David Breeze – with all three I have shared many long discussions, books and articles.

I have also benefited enormously from fruitful and stimulating discussions with Dr Birgitta Hoffmann, Dr Fraser Hunter, the late Dr Vivien Swan, Humphrey Welfare, Tony Wilmott, the late David Wilson, Dr Pete Wilson and Dr David Woolliscroft, as well as numerous colleagues at Roman Northern Frontier Seminars and *Limes* Congresses.

All the air photographs in this volume, except illustrations 5 and 57, are Crown Copyright: RCAHMS. Illus 5 is Crown Copyright: RCAHMSW, and 57 is copyright Dyfed Archaeological Trust. I am grateful to Professor David Breeze and Angus Lamb for providing illustration 3, Dr Jeff Davies for illustrations 2 and 6 (drawn by Charles Green), and the AOC Archaeology Group for illustration 51. Illustration 43 was produced by Georgina Brown (RCAHMS) following the processing of archaeological survey results gathered by the author and James Hepher. All the maps and plans in this volume were produced by Kevin Hicks and Dr Shelly Werner at CFA Archaeology, with the aid of grants from the Strathmartine Trust, the Society of Antiquaries of Scotland and Historic Scotland (at the latter I must thank Dr Noel Fojut and also Dr Sally Foster). Owing to the large size of many camps in Scotland, it has not been possible to maintain the same scale throughout the gazetteer, but illustration 47 depicts the perimeter extents for the more complete camps in Scotland at a scale of 1:10,000, enabling a visual appreciation of the size differentials, and direct comparison with figure 6 in Welfare & Swan 1995 and figure 15 in Davies & Jones 2006.

I am grateful to Professor Bill Hanson for editing the volume and Professor David Breeze for commenting on the text. Both sets of comments have significantly improved the text but opinions expressed are my own.

This volume has been published with the aid of grants from the Roman Research Trust and Historic Scotland. I am grateful to the publications committee of the Society of Antiquaries of Scotland for agreeing to publish this volume, to Erin Osborne-Martin, Dr Simon Gilmour, Alison Rae and Lawrie Law for all their support, and to Fionna Ashmore for compiling the index.

Finally, I must thank my husband, Simon, for his enthusiasm and patience, and my daughter Caitlin for learning to sleep, enabling this volume to be finished.

Editorial notes

This volume is divided into two main sections: a discussion of the archaeology of Roman camps in Scotland, followed by a detailed gazetteer with plans. A critical review has rejected some sites claimed as camps – those for whom the claim has some validity are detailed in the Probable and Possible sections at the end. The gazetteer includes alternative names for camps, together with the Ordnance Survey National Grid Reference (NGR) and RCAHMS reference number (comprising 1:10,000 map sheet number and site number). Where a site in the text is featured in the gazetteer it has been placed in bold type. For further information about these and other sites which have been reclassified, the reader is directed to trove.scot, the online database of Historic Environment Scotland (HES), formerly the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS). For England, the reader is directed to Welfare & Swan 1995 and Pastscape, the online database for English Heritage's National Monuments Record – www.pastscape.org.uk. For Wales, the reader is directed to Davies & Jones 2006 and Coffein, the online database of the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) – www.coffein.gov.uk.

CHAPTER 1

Introduction

The study of Roman temporary camps in Britain has been the poorer relation to the study of the more permanent structures and frontier installations. Recent years have seen a shift in emphasis with the publication in 1995 of the field archaeology of camps in England (Welfare & Swan). This was followed, in 2006, by a comparative volume for Wales and the Marches (Davies & Jones). Unlike the English volume, that for Wales did not limit itself to the modern geopolitical boundary, although did not repeat site-specific information for the English camps in the study area. It also expanded the scope to include the significance of temporary camps in the context of military campaigns and training regimes in the area.

This volume is intended to complement the two existing volumes by covering the remains of Roman

temporary encampments in Scotland and is based on research by the author for the degree of Doctor of Philosophy at the University of Glasgow (Jones 2006). Temporary camps in Scotland numerically outnumber those in England and Wales, although the awareness raised of these structures by the two volumes has resulted in the discovery of several new camps in these areas since the publications were produced. Nonetheless, by completing the coverage of the province of *Britannia*, it is hoped that the three volumes will aid study and research into these structures.

Research into temporary camps in Scotland has, until very recently, been largely the preserve of a few individuals, usually those engaged in aerial reconnaissance (Jones 2005a). By far the most camps recorded have

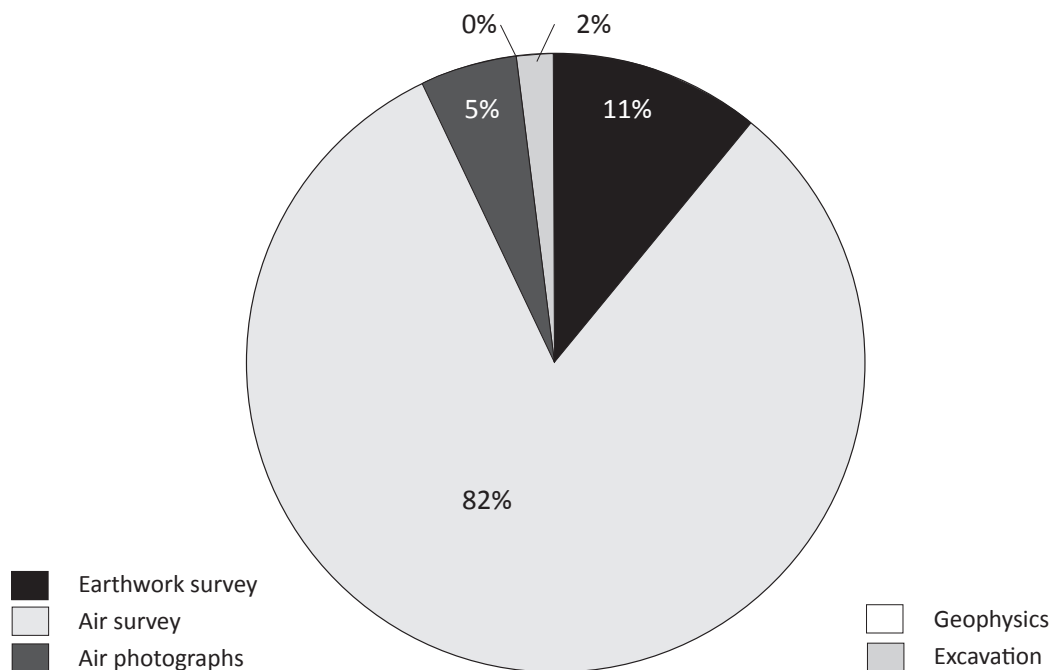


Table 1
Techniques of discovery of camps in Scotland.

ROMAN CAMPS IN SCOTLAND

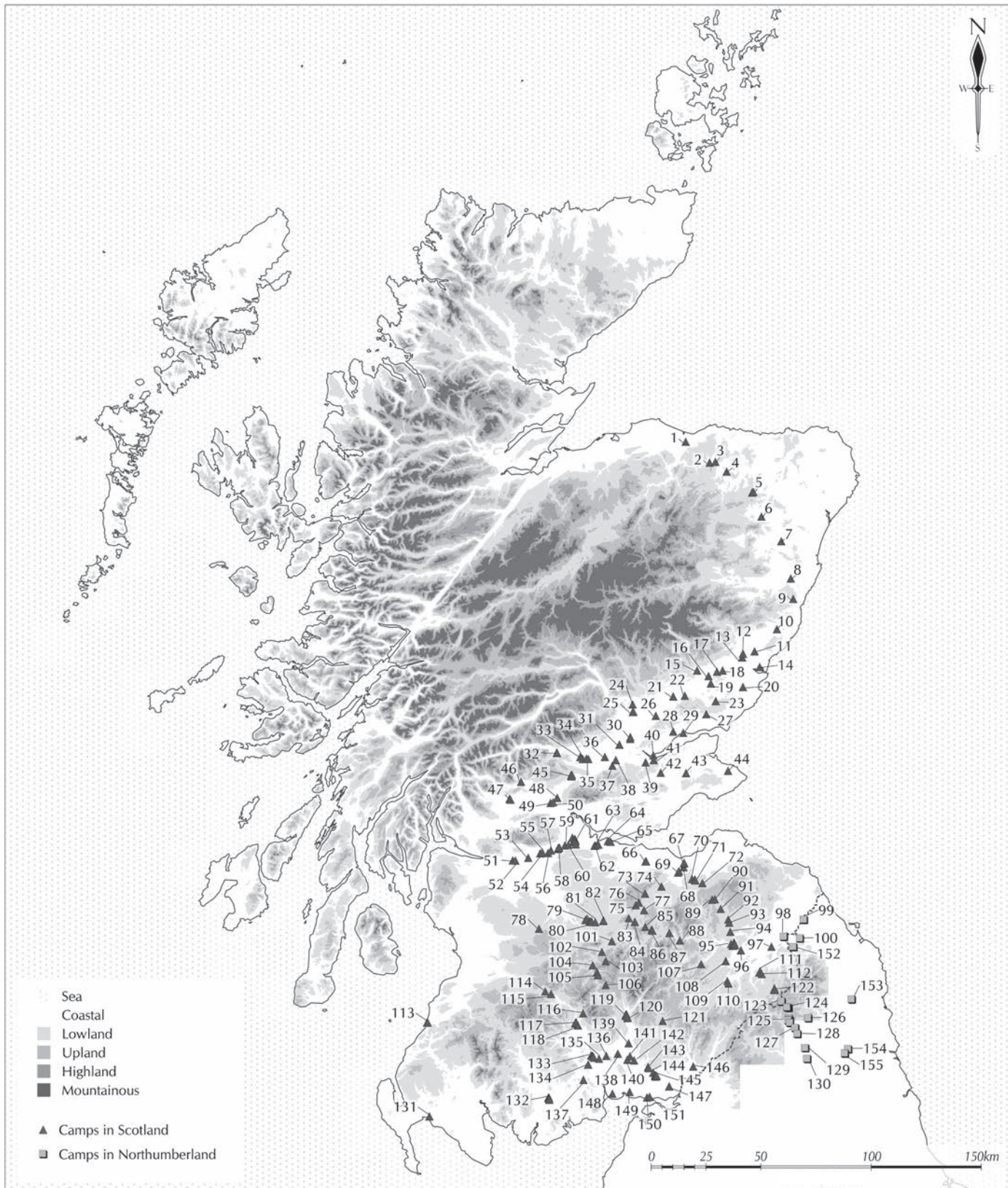


Illustration 1

Distribution map of camps north of Hadrian's Wall, including camps classified in the gazetteer as 'probable'. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

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been discovered through aerial survey (almost 82% of those now known in Scotland) (table 1), the majority of these since the end of the Second World War (table 2). However, since the planning framework started to dictate the nature and scope of much of the archaeological work undertaken from the early 1990s onwards (NPPG5: Scottish Office 1994), there has been a resurgence in rescue excavations of Roman camps, beyond the small trenches excavated by the aerial surveyors verifying their identification and testing theories of relationships (for an example, see St Joseph 1970a). In the 1990s, Alan Leslie looked at the unsung testimony of terrestrial fieldwork

on camps in Britain for his PhD at the University of Glasgow (Leslie 1995). His conclusions have been borne out by the large-scale developer-funded excavations at the camp at Kintore in Aberdeenshire (Cook & Dunbar 2008) (eg illus 18).

The purpose of this volume is to assess the field archaeology and the evidence for the conquest of Scotland through the archaeological remains of the temporary camps (illus 1). Plans and brief descriptive summaries of camps in Scotland will be provided in the end gazetteer. Some camps in northern England and farther afield will be included in the discussion where relevant.

Key to Illustration 1

(Camps in *italics* are in Northumberland, England)

- | | | |
|--------------------------------|---|--|
| 1 Bellie | 55 Bar Hill and 'structure' | 105 Crawford I to IV |
| 2 Auchinhove | 56 Croy Hill | 106 Little Clyde |
| 3 Muiryfold | 57 Dullatur I and II | 107 Oakwood |
| 4 Burnfield | 58 Garnhall I and II and Tollpark | 108 Milrighall |
| 5 Ythan Wells I and II | 59 Dalnair | 109 Eastcote |
| 6 Logie Durno | 60 Milnquarter | 110 Cavers Mains |
| 7 Kintore | 61 Lochlands I to VI; Lochlands Three Bridges I to VI; Lochlands Bogton; Lochlands Wester Carmuir I and II; Lochlands East Carmuir; Househill Dunipace; Tamfourhill | 111 Millside I and II and Ulston Moor I and II |
| 8 Normandykes | 62 Little Kerse and Polmonthill | 112 Cappuck |
| 9 Raedykes | 63 Inveravon I to III | 113 Girvan Mains East and West |
| 10 Kair House | 64 Kinglass Park | 114 Knowe Cottages |
| 11 Balmakewan | 65 Muirhouses | 115 Bankhead Kirkconnel |
| 12 Stracathro | 66 Gogar Green and Millburn Tower | 116 Durisdeer I and II |
| 13 Keithock | 67 Inveresk I and II | 117 Drumlanrig I and II and Islafoot Drumlanrig |
| 14 Dun | 68 Dalkeith | 118 Carronbridge |
| 15 Inverquharity | 69 Eskbank I and II and Lugton | 119 Beattock Bankend and Beattock Barnhill I to IV |
| 16 Battledykes, Oathlaw | 70 Woodhead I and II | 120 Milton I and II |
| 17 Finavon | 71 Pathhead I to III | 121 Raeburnfoot |
| 18 Marcus | 72 Fala Mill | 122 Pennymuir I to IV |
| 19 Lunanhead | 73 Carlops Spittal I and II | 123 <i>Chew Green I and III</i> |
| 20 Kinnell | 74 Boghall | 124 <i>Featherwood West and East</i> |
| 21 Cardean I | 75 North Slipperfield | 125 <i>Silloans; Sils Burn North and South; Bellshiel; Birdhope I to III</i> |
| 22 Eassie | 76 Stonypath | 126 <i>North Yardhope</i> |
| 23 Kirkbuddo | 77 Kaimhouse Lodge | 127 <i>Bagraw</i> |
| 24 Steeds Stalls, Gourdie | 78 High Cauldcoats | 128 <i>Dargues</i> |
| 25 Inchtuthil I, II and III | 79 Cleghorn I and II | 129 <i>West Woodburn</i> |
| 26 Lintrose | 80 Castledykes I to IV | 130 <i>Swine Hill I and II</i> |
| 27 Gagie | 81 Carstairs Mains | 131 Glenluce |
| 28 Longforgan | 82 Bankhead Carnwath I and II | 132 Glenlochar I to V |
| 29 Invergowrie | 83 Kirkhouse | 133 Dalswinton Bankfoot I to III and Ellisland I and II |
| 30 Grassy Walls and Scone Park | 84 Castlecraig I and II | 134 Fourmerkland I and II |
| 31 Easter Powside | 85 Wester Happlew | 135 Gallaberry |
| 32 Dalginross I | 86 Lyne I and II | 136 Amisfield Tower |
| 33 Dornock | 87 Eshiels I and II | 137 Lochrutton |
| 34 Strageath Cottage | 88 Innerleithen | 138 Trailflat |
| 35 Innerpeffray East and West | 89 Channelkirk | 139 Hangingshaw |
| 36 Gask House | 90 Oxton I and II | 140 Lochmaben |
| 37 Dunning | 91 Blackchester | 141 Applegarthtown |
| 38 Forteviot | 92 St. Leonards | 142 Torwood |
| 39 Carey | 93 Blainslie | 143 Burnswark North and South |
| 40 St. Madoes | 94 Kedslie | 144 Middlebie Hill I and II |
| 41 Carpow I and II | 95 Newstead I to V; Ravenswood I and II; Drygrange | 145 Birrens I to III; Broadlea I and II |
| 42 Auchtermuchty | 96 Mertoun Bridge I to III | 146 Gilnockie |
| 43 Edenwood | 97 Wooden Home Farm | 147 Kirkpatrick-Fleming I and II |
| 44 Bonnytown | 98 <i>Carham</i> | 148 Ward Law |
| 45 Ardoch I to V | 99 <i>Norham</i> | 149 Ruthwell |
| 46 Bochastle I and II | 100 <i>East Learmouth</i> | 150 Annanfoot |
| 47 Malling I and II | 101 Cornhill I and II | 151 Hillside Annan |
| 48 Hillside Dunblane I and II | 102 Lamington | 152 <i>Mindrum</i> |
| 49 Ochertyre | 103 Wandel | 153 <i>Edlingham</i> |
| 50 Craigarnhall | 104 Cold Chapel | 154 <i>Hartburn</i> |
| 51 Summerston | | 155 <i>West Marlish</i> |
| 52 Balmuildy | | |
| 53 Easter Cadder | | |
| 54 Twechar | | |

Historical sources and the problem of classification

2.1 Historical sources

Classification of Roman military remains has traditionally placed more emphasis on the permanent structures, such as forts and fortresses, than the more ephemeral remains such as ‘temporary’ camps. There is no full agreement on the classification of the temporary enclosures that were constructed by the Roman army, and no convenient classical source that gives us a full definition. Indeed, the

surviving classical texts mention *castra aestiva*, *castra hiberna* and *castra stativa* (summer, winter and permanent camps respectively). On the assumption that both summer and winter camps may be ‘temporary’ in nature, it is almost impossible to detect these differences archaeologically, and these are terms that are not now in common use.

Nevertheless, the classical texts do provide us with valuable information, whether from remarks in histories (eg Appian’s *Ἰβηρικὴ* and Livy’s *Histories*); digressions on the Roman military (eg Polybius’ *History* and Josephus’ *Bellum Iudaicum*), or more detailed text books on the layout of the camp (eg ‘Pseudo’ Hyginus’ *de munitionibus castrorum* and Vegetius’ *Epitoma Rei Militaris*).

Many such texts provide valuable contemporary or near contemporary accounts of the Roman army in the field and supply additional details on their activities (illus 2). Further details of the classical texts can be found in numerous publications (such as Campbell 1994; Fabricius 1932; Gilliver 1993a, 1999; Grillone 1977; Keppie 1984; Lenoir 1979; Leslie 1995; Miller & DeVoto 1994; Milner 1996) and will not be repeated here.

No mention of classical sources can omit the columns of Trajan and Marcus Aurelius in Rome. Both columns have friezes which depict campaigns on the Danube; that of Trajan relates the story of two Dacian Wars (AD 102–3 and AD 105–6) and that of Marcus Aurelius his wars against the Marcomanni (AD 172–3) and the Sarmatians (AD 174–5). In particular, the column of Trajan is extremely valuable when studying the artistic depiction of the Roman army in the field, with several friezes depicting the construction of camps (Cichorius 1900; Coulston 1990; Lepper & Frere 1988; Richmond 1982) (illus 3). Although it is unlikely that the sculptors knew the intricate details of Roman military life, it is believed that they were using Trajan’s *Commentaries* on the war as a source. Certainly, ‘they illustrate, with a care and fullness never before attempted and never afterwards surpassed, the adage that the Roman army owed as much to the spade as to the sword’ (Richmond 1982: 5).

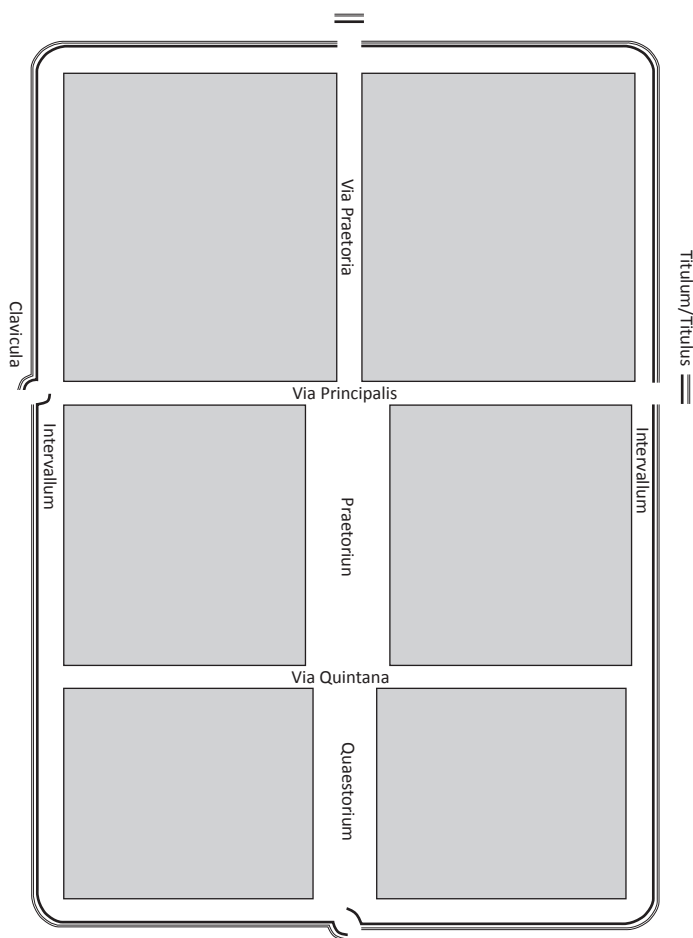


Illustration 2

Schematic drawing of a marching-camp, based on Hyginus’ *de munitionibus castrorum* (after Maxwell 1989 fig 3.1).



Illustration 3

Relief of a camp on Trajan's Column. A *clavicula* gate is depicted on the left of the image, and officers' tents within the camp to the right (ref: Cichorius 1900: cxxviii). Copyright: Angus Lamb.

More relevant to the campaigns by the Roman military in Britain and Scotland are the writings of Tacitus. In addition to his *Historiae* and *Annals*, he wrote a biography of his father-in-law, Cnaeus Julius Agricola, Governor of Britain from AD 77–83. This biography has been over-used as an archaeological indicator and, as a result, has had a tendency to skew interpretations of the evidence (see Hanson 1991). More recently the pendulum has swung the other way (eg Woolliscroft & Hoffmann 2006), but it is highly unlikely that Tacitus, writing about events which took place in the living memory of many of his contemporaries, would invent many of the activities undertaken by Agricola rather than massaging the details in his favour.

Certainly, recent attention has been drawn to other literary sources of evidence for the initial conquest of Scotland. For example, several scholars (eg Birley 1953: 13; Woolliscroft & Hoffmann 2006; Breeze 2009) have observed that the panegyric by Statius (*Silv.* 5.6.142–49) to the son of Vettius Bolanus (governor of Britain in AD

69–71) refers to the latter's activities in Caledonia. But this reference must be used with extreme caution, and does not necessarily mean that Bolanus was active in modern-day Scotland; the potential substitution of Tacitus' biography by Statius' poem leaves us in danger of replacing one literary dogma with another.

It is apparent that a wealth of historical source material on the contemporary Roman army has survived from antiquity, ranging from military handbooks through histories and biographies to sculptural relief. Yet, literary and sculptural sources should be seen in their historical context, secondary to the archaeology rather than as a primary dating mechanism. Nevertheless, they provide additional flesh on the bones of the archaeology and give welcome additional information, even though this information must be treated with prudence.

2.2 Classification

Roman temporary camps are regularly grouped into one of four classifications (categories proposed by

Lepper & Frere (1988: 260–1) following Richmond (1955: 300–3)):

- *Marching (or campaign) camps* – temporary bases of a tented army on campaign or manoeuvres away from their base.
- *Practice camps* – small camps which often cluster together indicating the exercise grounds and training regimes of the soldiers, including the construction of ramparts, ditches and gates. Many examples are known in upland areas of Wales (eg Davies & Jones 2006: 67–90).
- *Siege camps* – enclosures constructed to house troops besieging a nearby site. Well known examples include Numantia in Spain (Dobson 2008) (illus 4) and Masada in Israel (Richmond 1962) (illus 7).
- *Construction camps* – temporary enclosures housing soldiers involved in the construction of a nearby fort or frontier. The best examples in Britain are those along the line of the Antonine Wall (Hanson & Maxwell 1983: 117–19; Jones 2005b).

In theory, the division between these broad functional classes should be clear-cut; in practice this is rarely the case. The majority of camps in Britain are usually regarded as marching camps, perhaps *castra aestiva*, large enough to have held a body of men on campaign. Groups of camps have been identified since the 1950s as being of similar

size and morphology, situated about a day's march apart, and identified as marching camps belonging to the various Roman campaigns in Scotland (for example, St Joseph 1958: 93). The majority of these lie to the north of the Forth–Clyde isthmus (Jones 2009a: 872–4; see Chapters 9 & 10).

But this 'marching camp' category covers a multiplicity of potential functions: conquest, supply, manoeuvres, reconnaissance, policing, and scouts (*exploratores*) gathering intelligence (Jones 2009a; in prep). To avoid such classification problems, the volume on camps in England opted to refer to all camps as 'temporary' without further refinement (Welfare & Swan 1995). In Wales, the camps were divided into 'marching' and 'practice' with the division seeming to be fairly clear-cut, although there are naturally 'grey areas' in this distinction (Davies & Jones 2006).

Practice camps are usually small, cluster close to forts, and display a concentration on the elements being practiced, namely the turning of rounded corners and construction of gate defences. A number are known in upland areas in Wales (Davies & Jones 2006: 67–90) (illus 5 & 6). However, despite similar small camps existing in England, largely close to Hadrian's Wall, only about six have been tentatively proposed as probable practice camps (Welfare & Swan 1995: 24), although additional work is currently being undertaken to further categorise the camps along the Wall (Welfare in prep).

The group of at least sixteen camps now known outside the fortress at Chester (see Philpott 1998; Davies & Jones 2006: 143–6) have been suggested as possible practice camps, but they exhibit markedly different forms to those in Wales. They also appear to be broadly similar to the four camps now known outside the fortress at York (four of a potential eight recorded in the 18th century – Welfare & Swan 1995: 135–6; Johnston 2003). The camps in Wales are largely located outside auxiliary forts, and it seems likely that auxiliaries and new recruits were being trained in the craft of castrametation. Those outside Chester and York are markedly larger than the camps outside the Welsh auxiliary forts (which average about 0.1ha in



Illustration 4

View of the Siege camp of Peña Redonda, near Numantia, Spain, in 2006.



Illustration 5

Aerial view of practice camps III, IV and V at Doldinas, Wales, taken from the north-west in 1994. © Crown copyright: Royal Commission on the Ancient and Historical Monuments of Wales DI2005_0299.

size and are all smaller than 0.5ha), and range from 0.9 to 2.2ha outside Chester (excepting one, Christleton 3, which is only 0.5ha) and from 0.9 to 1.3ha outside York. It is possible, given the clustering of the camps around these two legionary fortresses, that they can be associated with legionary field training and manoeuvres, representing camps that did house troops, even if these troops were on exercise rather than campaign. On the continent, similar clusters of camps are recorded around legionary fortresses such as at Xanten (Vetera) and Bonn in Germany (eg Horn 1987: 333, Abb.280; Scollar 1965), and Brigetio (Komáron) in Hungary (Visy 2003: 34–8), and again range from c 0.5 to 1.8ha and more. There can be little doubt that these camps were able to, and almost certainly did, accommodate soldiers in tents, although the purpose and length of their stay is unknown. Excavations in the interior of one of the camps outside York revealed little evidence apart from a few pits and post-holes of unknown date (Johnston 2003).

There was presumably an element of manoeuvres and military training in the construction of many camps, when physical defences were not necessarily demanded by the prevailing conditions, hinted at by Tacitus when describing some of the training regimes demanded by Corbulo (*Annals* XIII: 34–5; Wheeler 1996). Those near York and Chester and outside legionary fortresses on the continent act as evidence of troop movements in the area and should not be grouped in the same category as the very small practice camps common in Wales, which demonstrate evidence for

concentration on elements of camp building rather than occupation. Indeed, it is doubtful whether a single Roman tent could be accommodated in the interior of some of the very small Welsh camps (such as Llyn Hiraethlyn IV, Davies & Jones 2006: 183–4).

The Roman Gask project has undertaken a limited survey and excavation programme on a series of small enclosures along the Gask Ridge in Scotland (see Woolliscroft *et al* 2002). Only one of these sites, **Easter Powside** (illus 122), appears on the current evidence to be the remains of a camp. A further enclosure, at East Mid Lamberkine (also called Tibbermore), has been interpreted as the remains of a possible practice camp (Woolliscroft *et al* 2002: 38), but the evidence is not sufficient because the camp has very angular corners and looks more typical of an indigenous rectangular settlement common in parts of Scotland in the Iron Age. Any camp commander or training instructor would surely have severely punished the troops who constructed such poor corners and irregular gateways, but whether the apparent *clavicula* on one side was deliberately copying a Roman type is not possible to ascertain. The only dating evidence, a radiocarbon date from the ditch fill of AD 585 to 700 (cal BP 1365–1250; Woolliscroft *et al* 2002: 37), does little to help.

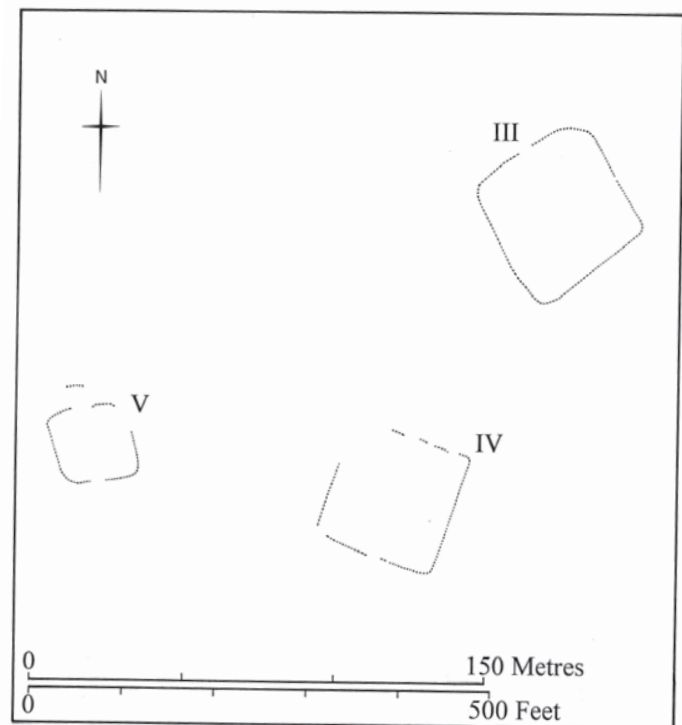


Illustration 6

Plan of practice camps III, IV and V at Doldinas, Wales. Copyright: J L Davies & R H Jones.

Therefore, camps that are proposed as practice camps are all located outside Scotland, and, indeed, there do not currently seem to be any practice camps north of the Hadrian's Wall zone.

When it comes to siege camps, these are well attested in classical literature (eg Appian *Ἰβηρικὴ* 90–7; Caesar

de Bello Gallico VII.75–89; Josephus *Bellum Iudaicum* VII.275–406) and the remains of siege works are scattered throughout the Roman Empire, some of the more famous examples being Numantia (Spain) (illus 4), Alesia (France), Masada (Israel) (illus 7) and Machaerus (Jordan) (eg Davies 2006). Siege works were sometimes, but not always,

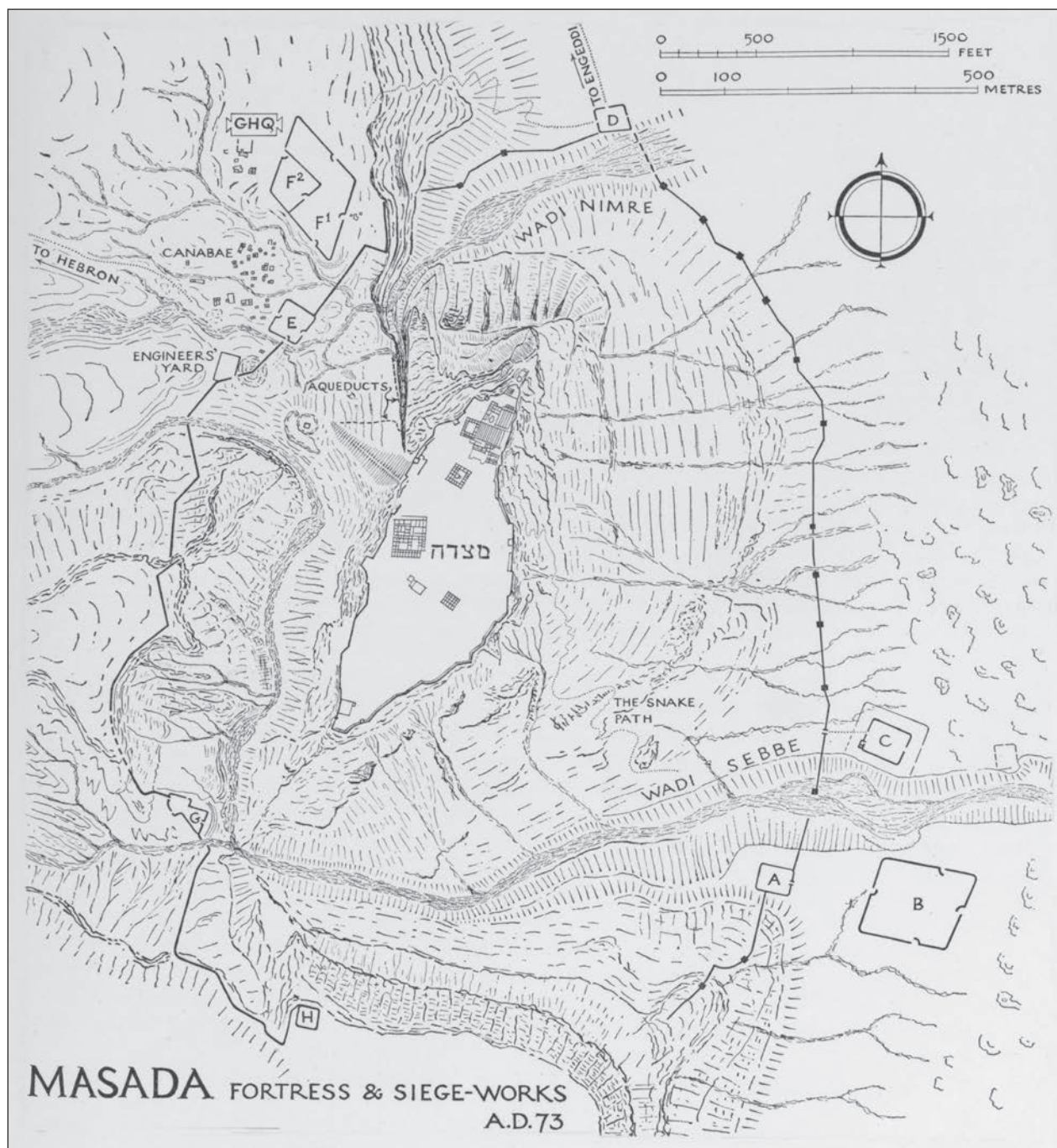


Illustration 7

Plan of the camps and siege works at Masada, Israel, made by Ian Richmond in 1960. (Reproduced from the *Journal of Roman Studies* 1962). The Hebrew in the centre reads 'Masada'.



Illustration 8

Aerial view of Burnswark Hill and the South camp, taken from the north-east in 1990. © Crown copyright: RCAHMS. SC1164088. Licensors www.rcahms.gov.uk.

The site of **Burnswark** is an anomaly in terms of explication, along with the so-called ‘practice-camps’ or ‘practice siege camps’ at Cawthorn in North Yorkshire (Richmond 1932); both sites suffer from multiple interpretations and largely insufficient research. Recent attempts have been made to remedy the definition of the latter site (Welfare & Swan 1995: 137–42; Wilson *et al* 2003), but the former continues to yield further information from field survey (RCAHMS 1997: 181–2) and no doubt would yield far more if subjected to additional investigation.

The fourth category is that of a construction (or ‘labour’) camp. While its definition is relatively self-explanatory, trying to separate these from the general mass of camps is fraught with difficulty. The most obvious examples in Scotland are the 2–2.5ha camps along the line of the Antonine Wall (Hanson & Maxwell 1986: 117–21; Jones 2005b). The plethora and range of camps along Hadrian’s Wall means that a similar exercise in searching for construction camps is problematic (Welfare & Swan 1995; Welfare in prep). While the two phase camps at **Inchtuthil** (camps II & III – illus 52 & 145) are frequently termed ‘labour-camps’ (Frere 1985b), Maxwell has also suggested that one phase of their use may have served

accompanied by a running breastwork or circumvallation. There are disputed claims at several sites in Britain, with that at Llanymynech Hill on the Montgomery/Shropshire border proposed as the site of Caratacus’ last stand against Rome in AD 51 (Jones 1990: 59–63), but now dismissed (Davies & Jones 2006: 156–9). The earthworks on Woden Law in Roxburghshire, once proposed as Roman training siege works (RCAHMS 1956: 169–72; Richmond & St Joseph 1982) are now thought to be of Iron Age date (Halliday 1982: 80–3).

However, the other potential siege camps in Britain are the two which flank Burnswark Hill in Nithsdale. These have been variously interpreted as siege camps (Barbour 1899) and practice siege camps (Steer 1964: 24; Davies 1972), and, more recently, convincing attempts have been made to reinstate them as the site of a genuine siege (Campbell 2002; 2003; Davies 2006: 57–60; Keppie 2009; Hodgson 2009: 187). Besides this debate as to their function, it has recently been observed that one of these camps, the South camp (illus 8, 58 & 92), might overlie an earlier marching camp (Maxwell 1998a: 49), but their function is still debated and they remain enigmatic.



Illustration 9

Aerial view of Woodhead I, taken from the north-east in 1984. © Crown copyright: RCAHMS. SC563287. Licensors www.rcahms.gov.uk.

as a 'seasonal base' (1982a: 113), rather than just housing troops engaged in the construction of the nearby fortress. The term 'seasonal base' provides additional complications – were these for summer or winter seasons? (It is not generally recommended that this term gathers regular usage, and perhaps should only be used on rare occasions when attempting to provide yet another refinement of the 'marching camp' classification.)

Another camp which can be suggested to have had a role in construction is that at **Steeds Stalls, Gourdie** (illus 50 & 198), so identified through the presence of internal 'stalls', possible lime-kilns, which suggest that it may have had a role in the preparation of materials for the construction of the fortress at Inchtuthil, lying about 3km to the south (RCAHMS 1994: 83). Maxwell has proposed a similar 'construction' function for the camp and enclosure at **Woodhead** (illus 9 & 212), suggesting that it was involved in timber felling and logging, potentially for forts such as Elginhaugh, lying some 7km to the north (1981: 45), and this is certainly one plausible explanation for the large irregular enclosure (**Woodhead II** – illus 212) surrounding the small camp.

An attempt to locate construction camps in Britain was undertaken by Sommer, but his selection related to the distance that a camp was located from a fort and the size differentiation between fort and camp (1984: 55–6). Although some of the camps cited by Sommer may be construction camps for nearby forts, or may have had a phase of use as such, there is little consistency, exacerbated by the lack of accurate knowledge of the numbers of troops housed in camps of different sizes. One camp where it has been suggested that the troops were quartered while engaged in the construction of a nearby fort is that at **Oakwood** (Steer & Feachem 1954: 97) (illus 15 & 187). This assumption is largely due to proximity and is currently impossible to confirm archaeologically because any evidence of camp and fort being occupied at a similar time could equally represent campaign troops halting alongside the occupying garrison. There is no independent evidence that this was a construction camp. In contrast, the excavators of the Roman fort at Strageath used the evidence of an early granary within the fort to suggest that it supplied the troops who were living in tents inside the fort while building its ramparts and gates (Frere & Wilkes 1989: 117). This explanation seems eminently possible, because the troops building the fort did not necessarily need to occupy a different patch of land during its construction, although it is dependent on there being enough space for the number of troops to be quartered within the ramparts. While erecting a temporary

camp would not have been overly time-consuming to an army thoroughly trained in such matters, it might be more efficient for the troops to demarcate the area and build from within, assuming that there were sufficient space. It might be presumed that the presence of tents in the interior of the fort would be an obstacle when attempting to build internal structures. Yet troops could live in tents in one part of the fort while constructing their barracks in another. Research on selected Augustan forts in Germany



Illustration 10

Aerial view of the camp at Milton, taken from the west in 1984. The fortlet and part of the annexe to the fort are visible to the left of the photograph. © Crown copyright: RCAHMS. SC1164041. Licensor www.rcahms.gov.uk.

has suggested that shelters were constructed over lines of tents when these were occupied for a longer period (Morel 1991), and this could operate as a forerunner to the development of camp into fort. But not all forts need necessarily have housed the troops involved in their construction in nearby camps, and indeed, camps are not attested at all fort sites.

If some of the camps at the large complexes around forts such as **Ardoch, Dalswinton** and **Glenlochar** (illus 77, 112 & 137) in Scotland were specifically constructed to house troops building the forts, then the question is asked

which camps were construction camps and how can these be identified. The probable variability in troop numbers engaged in the construction of each fort makes it difficult to identify such camps with any degree of confidence. Nevertheless, one or two camps outside forts might also be proposed as construction camps. For example, the camp at **Milton** (illus 10 & 180) lies immediately south of the fort of Tassiesholm (which had both Flavian and Antonine phases) and away from the main concentration of marching camps in this area, at **Beattock**, located 1km to the north (illus 38, 71 & 85). Furthermore, it shares similar morphology and size with many of the camps on the Antonine Wall.

Therefore, all four of Lepper & Frere's classifications (1988: 260–1) can be detected in the Roman province of *Britannia*, despite the dispute over the nature of the 'siege' camps at **Burnswark**. However, even given this fairly straightforward classification into four broad functional groupings, anomalies exist, such as the camps at **Lochlands Three Bridges** (illus 167), identified by Bailey as demonstrating signs of industrial activity (2000). Perhaps too, **Steeds Stalls**, **Gourdie**, could be transferred into a new category of 'industrial camp', although the industry there does appear to be associated with construction. Furthermore, **Kintore** has furnished evidence for a limited amount of industrial activity taking place in the interior

(Cook & Dunbar 2008), and conceivably too much can be read into signs of industrial activity that would have represented standard maintenance work for a mobile force. It is also possible that some structures at **Lochlands Three Bridges** were not temporary encampments at all, but were more permanent storage depots and industrial units servicing the successive forts at Camelon, a possible port on the nearby River Carron, and the Antonine Wall.

The pigeonholing of sites into overarching categories such as these is hardly confined to Roman archaeology; prehistoric sites probably suffer the most (particularly the catch-all phrase 'ritual'), with Roman sites appearing more regimented in their description and classification. Perhaps the argument is partly an issue of semantics amongst modern scholars (see Baines & Brophy 2006), and so it is perhaps easier to return to the catch-all phrase 'temporary camp', defined as non-permanent works by the Roman army, sites which lack any evidence to suggest that an occupation of some length was planned. Some of the simplest and most effective descriptions of temporary camps can be found in the antiquarian sources, with Allan, referring to the camp at **Channelkirk**, noting that, 'Major-General Roy ... affirms the Camp ... to be a Roman one, of the class which he styles temporary. That is to say, it was a camp thrown up while the army was on the march, and was not meant to be permanent' (1900: 642).

CHAPTER 3

Antiquarian tradition

Scotland is fortunate to have an extremely strong antiquarian tradition, particularly when it comes to the remains of the Roman occupations. An early reference was by the venerable Bede, who remarked on the Roman

of the earliest known sketches of the hill, and the south camp in particular, was by Alexander Gordon (illus 11); his sketch, although extremely stylised, conveys an idea of the south camp (1726: 16–17), and he also sketched the fort and camp at **Dalginross** (Gordon 1726: Pl. 5). Gordon also referred to a note by Commissary Maul (probably in about 1606–12) on the camp at **Kirkbuddo** in Angus (Crawford 1949: 97n). Another visitor to **Burnswark** was Sir John Clerk of Penicuik in 1731 (his sketch is reproduced in Prevost 1961). Sir Robert Sibbald noted various sites during his *Historical Inquiries*, including ‘several larger squares’ (1707: 37) near **Ardoch** (presumably the camps on the plain to the north of the fort), and a great fort at **Langton** on the Antonine Wall, recorded by Timothy Pont and also conveyed to Stukeley (1720: 5). No evidence for this particular fort has ever emerged and it is more likely to have been a camp, the word ‘great’ probably being applied to its size in area rather than to any indication that it was a more permanent structure.

No doubt the greatest contribution to Roman camp studies by an antiquarian was the survey of *The Military Antiquities of the Romans in Britain* by General William Roy, surveyed in the mid 18th century and

published, posthumously, in 1793 (Kings Manuscript in the British Library completed in July 1773). The early detectors of camps were generally men of military backgrounds, interested in the campaigns of earlier armies, particularly those with an accompanying literary

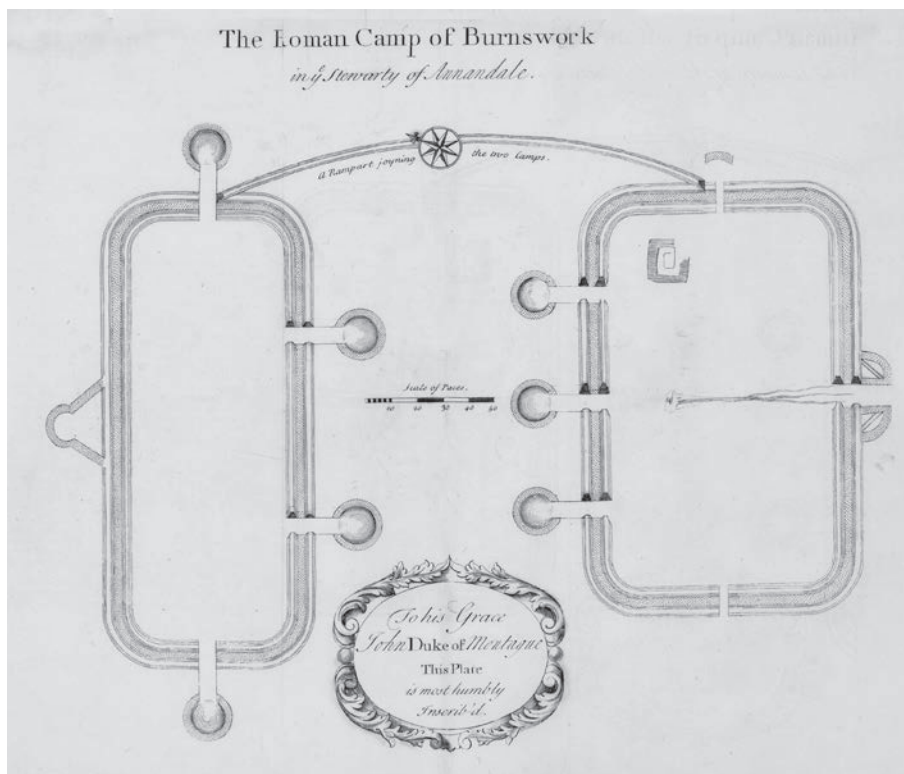


Illustration 11

Plan of the Roman Earthworks at Burnswark Hill from Alexander Gordon's 'Itinerarium septentrionale', published in 1726. (Also see the plan of the camps in illus 92.) © Courtesy of RCAHMS. DP070817. Licensor www.rcahms.gov.uk.

Wall (the Antonine Wall – *Historia Ecclesiastica* I.XII). The two camps at **Burnswark** were visited by a number of antiquaries, hardly surprising as the earthworks are still very prominent today, with the hill dominating the landscape of the surrounding area in Annandale. One



Illustration 12

Plan of Ardoch fort and camps, made by William Roy in 1755 (Plate X from 'Military Antiquities of the Romans in Britain'). © Courtesy of RCAHMS (Society of Antiquaries of London). SC1164070. Licensor www.rcahms.gov.uk.

tradition, however partial this may be. Edward I is said to have carried a copy of Vegetius' *Epitoma Rei Militaris*, a present from his wife, during his conquest of Wales. (This might highlight a potential problem in identifying the archaeological remains of the Roman period in Wales, although there is no evidence to suppose that Edward followed Vegetius' instructions for the defences of troops on the march.) Comparisons have been made between the movements of the Roman army in Scotland and those of later armies, such as Edward I and Cromwell, the geography of the country dictating similar patterns of movement for land-based armies (Maxwell 1986, Southern 1996).

Roy was born and brought up in Lanarkshire (Macdonald 1917: 163; O'Donoghue 1977: 3) and his professional background was in the military; he assisted in the Survey of Scotland commissioned by the Duke of Cumberland after the battle of Culloden, between 1747 and 1755, although he did not actually join the army until 1755. His interest in Roman antiquities was fired by Captain (later General) Robert Melville, whom he met in the 1750s when Melville was keen to reconstruct the geography of Tacitus' *Agricola* (O'Donoghue 1977: 19). Melville, convinced that the battle between Agricola and Calgacus must have happened towards the eastern extremity of the Grampian mountains, travelled through Strathmore in 1754 and discovered no fewer than four camps (**Lintrose, Battledykes, Keithock and Kirkbuddo**), also sketching **Dalginross** and visiting the Antonine Wall in that year (Balfour-Melville 1917: 123n; Jones & Maxwell 2008). Melville regarded Roy as his 'first proselyte', explaining to him the difference between temporary camps and more permanent stations. The map of Scotland for Cumberland showed only permanent and therefore more prominent fortifications, and Roy spent time in 1755 making plans of Melville's newly discovered camps alongside recording in detail the remains at **Ardoch**, including two of the camps in his plan (illus 12). Melville was obviously also in communication with Maitland, who published a note on the Strathmore camps in 1757 (200), and later Melville contributed some information on his discoveries to Gough's edition of Camden's *Britannia* (1790: iii, 414ff; Macdonald 1917: 170), although he had been losing his sight for some time and was blind by 1789 (Balfour-Melville 1917: 125n).

Roy certainly produced by far the best plans of camps for over a century, and many of his measurements can be verified today. The camp at **Dalginross**, for example, was visible as an earthwork in the 18th century but is now only visible from the air as a cropmark. Roy's plan,

made in 1755, when compared to a computer-generated transcription of oblique aerial photographs, is extremely accurate, to the extent that three tumuli recorded on the edge of the plan are also in the correct location (illus 13). (This is despite the fact that the map was intended as a plan of the Roman remains, exemplifying his attention to map-making detail.) Some later antiquarians have been almost critical of his involvement in the survey of Scotland (such as Chalmers 1807: ii, 63), but he is now quite rightly acknowledged as one of the founders of the Ordnance Survey. Roy attempted to garner favour for a national survey of Britain in 1763 (which commenced in 1791, a year after he died (O'Donoghue 1977: 41–2)), because he regarded the map of Scotland prepared for Cumberland as 'a magnificent military sketch, [...] rather than a very accurate map' (Roy 1785: 385). His approach to surveying methods was pioneering at the time, and the quality of his technical ability is apparent in three papers published in the *Philosophical Transactions of the Royal Society* relating to triangulation (1785, 1787 & 1790). He was awarded the Royal Society's *Copley Medal for Science* in 1784, following the measurement of a base on Hounslow-heath (O'Donoghue 1977: 41). However, despite publishing a map of Roman Scotland in 1773 (O'Donoghue 1977: 28; Roy 1793: Pl. I), Roy's *magnum opus* on Roman antiquities was delayed, and it was not published until three years after his death. The most important contribution of this landmark publication is, unsurprisingly, the map detail (he was meticulous in distinguishing between plans made by accurate measurements and sketches made by pacing), but his text was constrained by an over-reliance on Tacitus and a desire to attribute most camps to the campaigns of Agricola.

Many of the early antiquarians were also following the literature of Tacitus, in particular his biography of Agricola. The problems in using this literature to pursue the archaeology have been discussed elsewhere (Hanson 1991), but it led many antiquarians to interpret most Roman camps and, indeed, other remains, as those of Agricola and his troops in the 1st century AD. Great emphasis was placed on the location of the battle against the Caledonians at Mons Graupius, still not located today even with far more sophisticated detection techniques than those available to our illustrious forebears. The antiquarian essays searching for that battlefield are discussed in detail elsewhere (eg Maxwell 1990: 72–90). Numerous antiquaries located the possible place of the battle by applying etymological evidence, looking at place names, or studying archaeological remains. A variety of earthworks, some of which are now known to be non-Roman, were identified

ROMAN CAMPS IN SCOTLAND

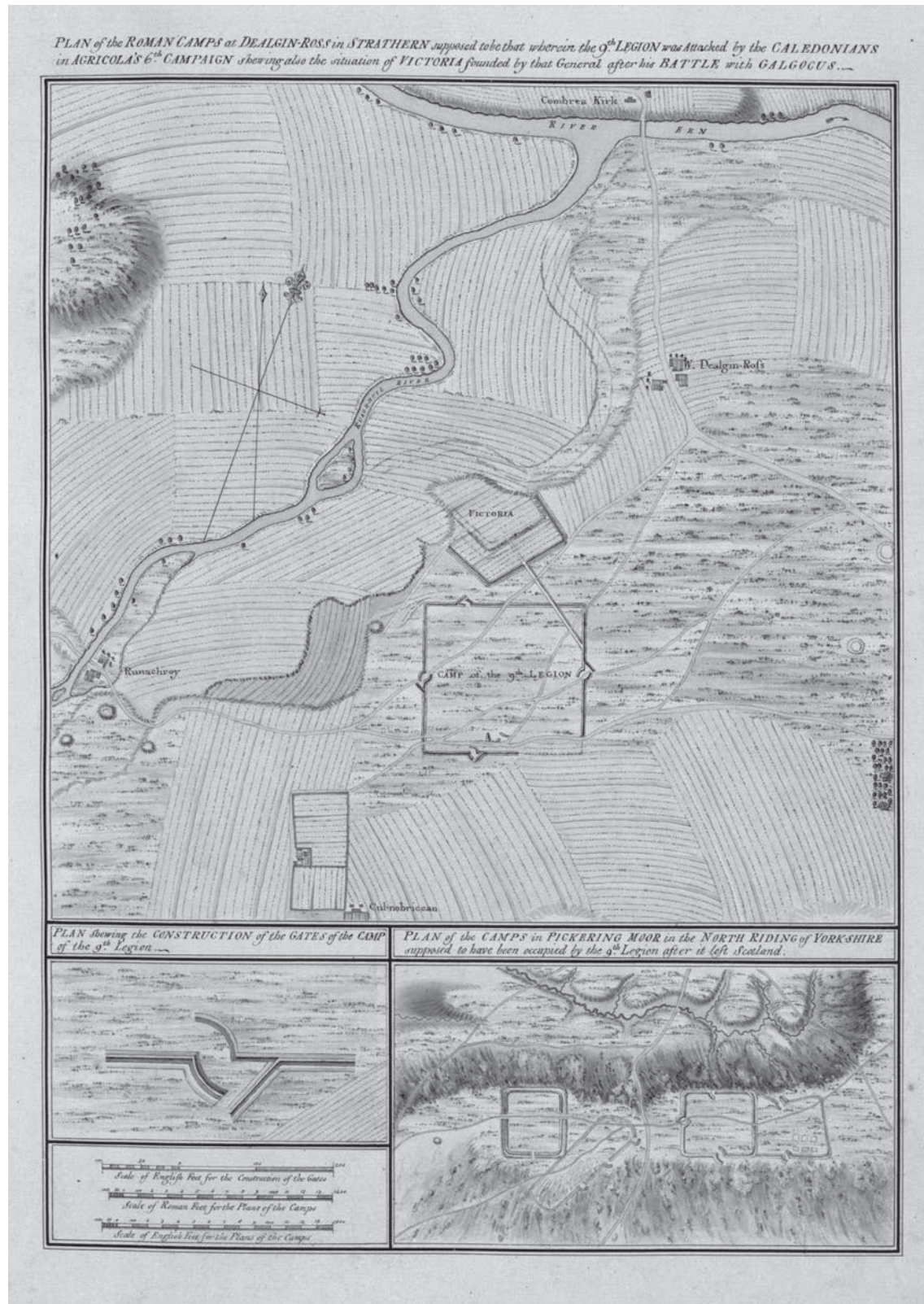


Illustration 13

Plan of Dalginross fort and camp, made by William Roy in 1755 (Plate XI from 'Military Antiquities of the Romans in Britain'). © Courtesy of RCAHMS (Society of Antiquaries of London). SC1164071. Licensor www.rcahms.gov.uk.

as the likely source of battle, including the Buzzart Dykes, a medieval earthwork north-west of Blairgowrie (said to be the camp of the Caledonian leader, Calgacus (Maxwell 1990: 76; Crawford 1949: 76–7)), and Fortingall in Glen Lyon, a medieval moated site identified with the battle by Horsley (1732: 44; Crawford 1949: 78; Maxwell 1990: 77–8). **Ardoch**, where the remains of the Roman fort had been identified as early as 1672 (Christison 1898: 400–1), was another such potential site of the battle, particularly the camps to the north, identified by such antiquaries as Stuart (1852: 70). However, Stuart wisely commented that it was unlikely that all the military works at Ardoch had been constructed by Agricola, seeing the large camps to the north as too big for Agricola’s army and therefore later in date (1852: 189, 252).

Gordon had earlier dismissed Ardoch as the venue, seeing it as no more than a ‘*castella*’, but noting ‘the vestiges of a vast large ditch upon the moor, with two or three projections of earth at regular distances [. . .] traced for above two miles’ (1726: 39), presumably partially the remnants of the camps lying to the north of the fort. He preferred **Dalginross** as the battle site owing to calculations of the number of men it could accommodate based on Polybius, and the fact that the horses could be housed ‘in the other square’ (Gordon 1726: 39–40). Roy chose to see **Dalginross** as the location for the attack on the 9th legion, and the reasons for discounting this site as the location of the Mons Graupius battle have been

discussed by Maxwell (1990a: 79–81). Applying his own military mind to Tacitus, Roy preferred to see the battle site farther to the north, concluding that it lay north-east of the Tay, possibly in Angus or Kincardine (1793: 84–8). **Raedykes**, for a while the most northerly camp known, was also a favourite site for the battle owing to its position at the apparent extremity of empire and the fact that it was also the largest camp known at the time (Maitland 1757: 202; first sketched by George Brown and Barclay of Urie in 1778). Later, Colonel Shand discovered the more northerly camps at Glenmailen (**Ythan Wells I**) in 1785 (Roy 1793: Pl. LI), followed by **Normandykes** in 1801 (Stuart 1852: 250).

The fascination with the site of the battle of Mons Graupius has not lost its appeal to later generations (for example, Burn 1953; Henderson-Stewart 1960; Feachem 1970; St Joseph 1978a; Keppie 1981; Maxwell 1990; Fraser 2005), although the possibility that the battle was a figment of Tacitus’ imagination has also been raised (Henig 1998). But given the close chronological proximity between Agricola’s activities and Tacitus’ biography, it is unlikely that he would have invented an entire battle. The battle site may one day be identified, for persistent research eventually identified the location of the defeat of Publius Quinctilius Varus and three legions in the Teutoburg Forest in AD 9 (Schlüter 1999; Wilbers-Rost 2002; Wells 2003), suggesting that archaeological evidence may yet furnish clues to the battle site of Mons Graupius.

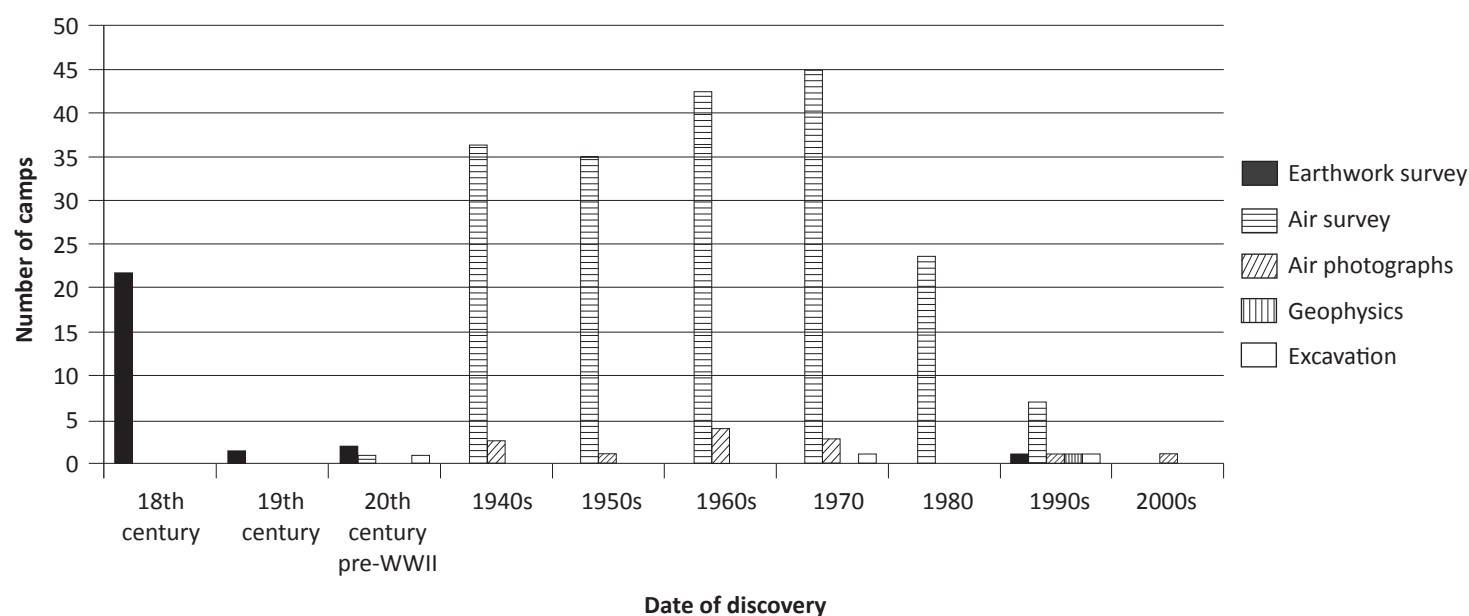


Table 2
Date and method of discovery of camps in Scotland.

The other professionals who identified camps were either men of landed backgrounds, for whom identifying Roman remains was more of a wealthy man's hobby, or men of the clergy. Most ministers were familiar with the writings of Josephus on the Jewish War, and therefore had some knowledge of the campaigns of the Roman army. This may explain the identification of the camps on Llandrindod Common, south of the fort of Castell Collen in Radnorshire, Wales, by the Reverend Thomas Price in 1811 ('a young but intelligent and zealous antiquary' (*Archaeologia* 1814: 168)) and published a short while later. Men of wealthy backgrounds included those who compiled journals and letters recording their visits, one being Douglas in 1782, who described the camp at **Raedykes** on his 'second jaunt to the country' (260–2).

Over thirty camps were recorded by various antiquarians in Scotland before the turn of the 20th century, some during the first Ordnance Survey of Scotland, such as that at **Kintore** by Captain Courtney (1870). Others were still recorded by ground survey thereafter, such

as **Little Clyde** by Crawford (Collingwood & Taylor 1924: 207), but the greatest advance in camp studies in the last century was through the use and application of aerial photography (table 2). Many camps recorded as earthworks by antiquarians have since been ploughed away (such as **Dalginross**, compare illus 13 & 53), and the greatest threat to this class of monument has been the revolution in agricultural techniques in recent centuries, some antiquarians recording that earthworks were disappearing through land improvements and ploughing in their lifetimes. A camp was recorded at Arduthy, south of **Raedykes**, in the 18th century, the investigator noting that the camp had been much more distinct in the past, but was partially destroyed by agricultural activities (Barclay 1792: 566). This camp has not yet been rediscovered, although aerial photography has successfully relocated and enabled plans to be drawn or redrawn of a number of sites, such as **Invergowrie**, identified from the air in 1990 (Frere 1991: 226), but first recorded as a camp (Catermillie) by Maitland over two centuries earlier (1757: i, 215).

CHAPTER 4

Contribution of aerial survey

Aerial survey and photography has developed our knowledge of archaeology, and particularly our knowledge of Roman camps, in the 20th century and into the 21st. Subsequent to the military needs of the Hanoverian conquerors of Scotland (the requirement for a suitable map of the territory), it was again military needs that stimulated the technology of airborne reconnaissance that has had the most impact on the discipline. There are some celebrated early photographs of archaeological sites from the air, such as the forum at Rome from a tethered balloon in 1899 (Ceraudo 2005: 74) and Stonehenge from a balloon in 1906 (Wilson 2000: 16–17), but the man largely regarded as the pioneer of air photography for archaeology was Osbert Guy Stanhope Crawford. He was a member of the Royal Flying Corps during the First World War, and during this time started to use air photographs for mapping purposes (Crawford 1955: 117ff). Following his military service, Crawford was fortunate to be appointed as the first specialist in archaeology at the Ordnance Survey (OS), becoming its Archaeology Officer in 1920. His own background prior to the war had largely been in geography, and Crawford saw himself as first and foremost a field archaeologist. He made a great many contributions within his area of research, and as a member of staff at the OS was able to suggest the publication of ‘period maps’, including the first OS map of Roman Britain in 1924. This map showed a skeleton of Roman sites so far identified, but was shortly followed by the second edition in 1928, which included more sites identified through archaeological fieldwork (Phillips 1980).

In this research, Crawford had not lost sight of the application of aerial photography learnt during the war, giving lectures on the technique and publishing a paper on *Air Photography for Archaeologists* in 1929. He also started taking photographs of sites from the air himself, and co-authored the first publication on the subject *Wessex from the Air* (Crawford & Keiller 1928). Crawford undertook his first flight in Scotland in 1930, following Roman routes (the Roman road through Annandale and Clydesdale,

Perthshire and Dere Street), but, although he noted the sites that he saw from the air, no photographs were taken (Crawford 1930: 276–7). Nine years later, Crawford joined forces with Geoffrey Alington and identified a number of new Roman sites in June 1939, rediscovering the camp at **Ward Law** (interpreted as a fort until relatively recently) and locating the camp at **Gallaberry** (Crawford 1939: 284–5) (illus 14 & 132). The purpose of Crawford’s flights was to investigate Roman roads and sites, partly in order to produce a third edition of the *OS Map of Roman Britain* (eventually published in 1956). His systematic approach to the recording of archaeological sites set the scene for many field archaeologists in subsequent years, whether employed by the OS or by the respective Royal Commissions for Scotland, England and Wales (established in 1908). However, in acknowledging his contribution to landscape studies, particularly with his foundation of the journal *Antiquity*, his contribution to the study of Roman camps in Britain is frequently ignored. While he was certainly one of the pioneers of aerial archaeology, credited with driving the subject forward (Bowden 2001: 37), his own interest in the Roman remains visible in the country is plainly evident in his *Topography of Roman Scotland North of the Antonine Wall*, published in 1949, based on his Rhind Lectures to the Society of Antiquaries of Scotland in 1943. His mapping approach to archaeology echoed that of Roy, to whom he served as an extremely belated successor, the former credited with founding the Ordnance Survey, the latter with founding archaeological landscape studies in Britain. While Crawford started the popular *OS Map of Roman Britain*, now in its fifth edition (2001), Roy was the first to set the archaeology of Roman Scotland in its landscape setting with his map of 1773.

Crawford’s successor in the promotion of aerial reconnaissance in archaeology was J. Kenneth St Joseph, a member of the Royal Air Force (RAF) during the Second World War, but employed by Cambridge University from 1948 (St Joseph 1976: 2). The history of the Cambridge University Committee for Aerial Photography (CUCAP)

is well known, with St Joseph rightly acknowledged as the person who advanced the application of aerial photography to archaeology (Webster 1983). St Joseph's research interests lay in the field of Roman military archaeology, and he is the key figure who expanded the number of temporary camps known in Scotland as well as elsewhere in Britain. Indeed, at least 43% of all the camps now known in Scotland were discovered by St Joseph personally. He

of Roman Scotland, with aerial survey initially taking place after the war within the RAF training programme, before sponsorship by CUCAP in 1948. In addition, St Joseph records that he was able to view Ardoch from the air during a flight in 1944 (St Joseph 1976: 2). Earlier (in 1941) Flight Lieutenant Eric Bradley, also flying from Scone, recorded the camp (initially thought to be a fort) at **Steeds Stalls, Gourdie** (Richmond 1943: 47–9). The

airport at Scone was regularly subsequently used as a flying base by CUCAP on sorties in Scotland, a convenient base for flying west along the Gask Ridge (Strageath was frequently the first target on these flights), and north and east to Inchtuthil and Strathmore.

In tandem with the Cambridge flying programme, vertical air photograph collections (particularly the National Survey of Scotland taken by the RAF after the war) began to be scrutinised for archaeological sites. This work was largely undertaken by staff at the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS), under the direction of Kenneth Steer, also an archaeologist with specific interests in the Roman period. Steer and colleagues discovered various Roman sites, including several camps on the Antonine Wall (Feachem 1958), and a number of camps in preparation for Inventories of the Counties of Selkirkshire and Peeblesshire (such as **Oakwood** (illus 15) in the former, **Eshiels** and **Innerleithen** in the latter) (RCAHMS 1957; 1967). While Roman sites received perhaps more detailed treatment



Illustration 14

Aerial view of Gallaberry, from the east, taken by O G S Crawford in 1939. The cropmarks of a probable Iron Age fort and other features can be seen top left, above the camp. One of the parallel ditches of a probable Neolithic cursus runs through the camp and to the right; the second is visible to the bottom of the image. © Courtesy of English Heritage/RCAHMS. SC1164037. Licensors www.rcahms.gov.uk.

regularly published papers on his new discoveries from the air in the *Journal of Roman Studies* and elsewhere.

Both Crawford and St Joseph received training in the value of aerial reconnaissance from the military during the First and Second World Wars (from the Royal Flying Corps and the RAF respectively). The location of an RAF training school at Scone in Perthshire before, during, and after the Second World War was fortuitous for the study

when it came to researching, excavating, and publishing the results of RCAHMS' study of air photograph collections (for example, Steer & Feachem 1954), other sites of other periods were recorded and included in the respective Inventories. The examination of large areas of land through such aerial photography collections tends to be less biased in the recording of archaeological sites than observer-directed aerial survey itself, which is subjective



Illustration 15

Vertical air photograph of the camp at Oakwood, taken by the Royal Air Force in 1946, and identified by Feachem during the preparation of the Inventory of Selkirkshire (RCAHMS 1957). The four sides of the camp are indicated, and the additional arrow towards the bottom of the image marks the Roman fort. © Crown copyright: RCAHMS RAF Collection: 106G/UK/0086 4437.

and often depends on predetermined flight plans and specific survey programmes, as well as the inevitable constraints of weather (see Cowley 2002: 256–62; Brophy & Cowley 2005).

St Joseph and his colleague (and ultimate successor) David Wilson at CUCAP remained virtually the sole practitioners of aerial reconnaissance for archaeology in Scotland until the RCAHMS started its own flying programme in 1976 under the direction of Gordon Maxwell. CUCAP largely ceased archaeological sorties in Scotland in the early 1980s, the mantle being passed to the Royal Commission. The number of temporary camps recorded continues to rise, albeit not as rapidly as in the four decades following the Second World War. Approximately 25% of all camps recorded from the air have been discovered by Maxwell and colleagues at RCAHMS. Maxwell's main field of research also lies in the area of Roman archaeology, and the continued reconnaissance for, and discovery of, temporary camps comes as no surprise. New discoveries are now usually recorded in the 'Roman Britain in xxxx' section of the journal *Britannia*, with occasional 'air reconnaissance in Roman Britain' summary articles continuing the traditions established by Crawford and St Joseph (eg Maxwell & Wilson 1987). Prospective aerial survey in Scotland has had a tendency to follow known Roman campaign routes north of Hadrian's Wall, as a glance at a map of recorded cropmarks in the CUCAP collection will testify (Whimster 1983: fig 68). Despite a more varied programme of reconnaissance in RCAHMS, this trend has broadly continued, partly owing to the weather conditions and the land available for cropmark potential. This has had an enormous benefit for the study of camps in Scotland, probably to the detriment of other periods, with so many practitioners concentrating on Roman remains from the time of Crawford. He freely acknowledged that it was impossible to record all the sites visible from the air, and that he sometimes chose to focus on Roman roads and sites (Crawford 1939: 289).

However, the concentration of aerial survey by Roman archaeologists on known and prospective Roman routes through Northern England and Scotland has inevitably led to a bias in the patterns of sites known (bearing in mind that 82% of camps in Scotland have been recorded through such means; table 2), a pattern that has not been significantly altered by subsequent RCAHMS reconnaissance (Jones 2005a). Serendipity has rarely been given the opportunity to play a part in the discovery of camps from the air, with only a couple of anecdotal examples: the fort and camps at **Malling**, Lake

of Menteith, were spotted by David Wilson while on a geological aerial survey with St Joseph – that location had not been pursued before as it was deemed to be a most unlikely site for Roman occupation (Wilson 2005); the camp at **North Slipperfield**, near West Linton, was spotted by the author on a flight with Maxwell, and had not been identified previously partly owing to being on the 'wrong' (that is, not the observer's) side of the plane on the flight path south of Edinburgh, and a little distance from the Roman road. On neither occasion was there any uncertainty as to whether what was visible was of Roman origin. Since 1992, very few camps have been discovered during aerial survey, including **North Slipperfield** mentioned above, and a new site at **Islafoot Drumlanrig** (also discovered by Maxwell), on the opposite side of the River Nith from the Roman fort. The flying year 1992 not only represents the one of the few years in the last twenty in which weather and other conditions combined to produce excellent cropmark results, it also represents the start of a period of decline in prospecting specifically for Roman sites due to the cessation of flying by Gordon Maxwell at RCAHMS and David Wilson at CUCAP. While this slight change of emphasis in flying programmes will probably be seen to benefit landscape studies in general (and serendipity will be allowed to play more of a part in the search for Roman camps), the impact on the recording of Roman camps is perhaps already apparent (see table 2). Chance discovery has not yet had an impact on the identification of camps, although a few new fortlets have been 'accidentally' discovered away from known Roman routeways since the late 1980s: at Kirkland (near Moniaive in Dumfries and Galloway), possibly attesting to a penetration route from Drumlanrig/Nithsdale to the south-west (Keppie 1993: 281); at Kirkton, Livingston (West Lothian), again away from known Roman routes (Keppie 1993: 280); and probably at Lochrutton (west of Dumfries), suggesting a route towards Glenlochar (Hunter 2005: 402). The Livingston site opens up the intriguing possibility of a hitherto unsuspected route south to the Flavian fortlet at Castle Greg and then south-east, farther across the Pentland Hills to Tocherknowe (West Linton), possibly continuing along the Lyne Water (via the camps around West Linton and **Kaimhouse Lodge**) to the fort and camps at **Lyne**/Easter Happrew.

The proliferation of temporary camps and other Roman sites recorded as cropmarks has led to a tendency of research and publication, and in many cases small-scale excavation, being carried out by the aerial practitioners. St Joseph was the first of these to address possible date ranges



Illustration 16

Vertical air photograph of the camp at Raedykes, taken by the Ordnance Survey in 1965. The four sides of the camp are indicated by arrows (also see illus 193). © Crown copyright: RCAHMS OS Collection: OS/65/028_0127.

for camps, grouping them into various series dependent on their size and gate-type (St Joseph 1958: 93; 1969: 113–19; 1973: 228–33; 1977: 143–5). However, some camps appear to have been ‘shoe-horned’ into various groupings, and St Joseph did not take into consideration unusable ground within the camps when allocating them to these series. For example, **Raedykes**, at 93 acres (*c* 38ha) was first placed in his ‘120 acre’ (48.5ha) and then ‘110 acre’ (*c* 44ha) groups (St Joseph 1973: 231; 1977: 143–4), rather a large disparity, particularly when one considers that the camp takes in the extremely uneven ground of Garrison Hill (illus 16 & 193). While affording a good view of the surrounding

countryside, parts of this hill would likely prove unsuitable camping ground, reducing the useable area even further. In addition, one of St Joseph’s series hangs together purely on gate-type (Stracathro-type – see Chapter 9) as the camps range in size from about 2 to 24ha (5 to 60 acres) (St Joseph 1973: 229; Hanson 1978a: 144; Jones 2009c), thus contradicting his own proposal for classifications based on acreage. While many of St Joseph’s propositions were ingenious and do stand up to critical analysis, further possibilities and more complex scenarios than those that link directly to the literary evidence (eg Tacitus’ *Agricola*) should also be sought.

CHAPTER 5

Excavation and survey of camps

The labelling of a particular site as a ‘temporary camp’ is itself dependent on a variety of factors. Firstly, a site can appear morphologically similar to other temporary camps, which allows it to be classified as such. Secondly, excavations of possible camps may produce some of the required evidence for classification as Roman, namely a

V-shaped ditch, possibly with a cleaning or ‘ankle-breaker’ slot in the bottom (and, occasionally, artefactual dating evidence or interior features such as pits and ovens). At the end of each flying season, St Joseph spent time placing small trenches through linear cropmarks to confirm that these were, indeed, the ditches of Roman camps (Jones 2009b) (illus 17). This is knowledge that we now take for granted when identifying sites as camps from the aerial evidence alone.

Until relatively recently, excavations on temporary camps have largely either concentrated on solving chronological questions, such as at **Ardoch** and **Ythan Wells** (illus 17) (St Joseph 1970), usually by aerial practitioners such as St Joseph, or have been triggered by the threat of development. Since the advent of developer-funded archaeology, more and more trenches have been placed through camps by people who are not specialists in the field of Roman military archaeology (a trend observed by Leslie 1995: 20). Few research projects have looked specifically at camps in Scotland; two recent projects included camps, although these were not the focus of the projects: the ‘Newstead Environs’ project conducted by Bradford University, and the ‘Gask Ridge Project’ (originally under the auspices of Manchester University, and latterly Liverpool University). Professor W S Hanson excavated at Monktonhall, **Inveresk** in 1984 (Hanson 2002), and Leslie subsequently proposed that only large-scale research excavation on camps was likely to result in fruitful results beyond V-shaped ditch sections; this suggestion was borne out not only by his own excavations at **Beattock Bankend**, **Kirkpatrick-Fleming** and **Pathhead** (Leslie 1995: 123ff; Leslie & Will 1998), but by subsequent excavations at **Dullatur** and **Kintore**. The former produced datable ceramics from the ditch, of which a large area was excavated (Lowe & Moloney 2000: 244–6); the latter identified numerous field ovens and pits when a large area in the interior was opened up over several seasons of excavations (Cook & Dunbar 2008; see section 7f). The excavations at **Kintore** have provided a wealth of information and finds, illustrating

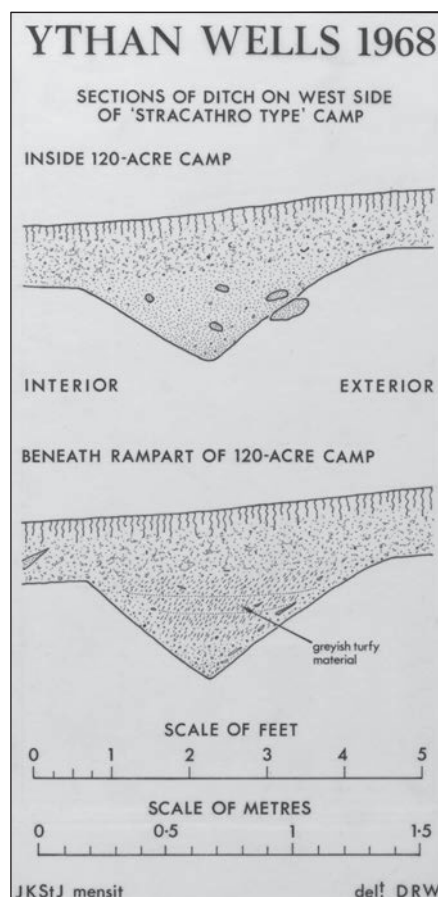


Illustration 17

Example of a section of ditch excavated by Professor St Joseph of the camps at Ythan Wells in September 1968. © Crown copyright: RCAHMS (Professor J K St Joseph Collection). DP071207. Licensors www.rcahms.gov.uk.

how much there is still to find out about these structures. They have served to whet our appetite for similar work on other structures, which could demonstrate that **Kintore** is not an anomaly, merely the camp that has received the largest extent of open-area excavation anywhere in the Roman Empire (illus 18) (Shepherd 1987; Rees 1996;

Hamilton & McGill 1997; Glendinning 1998a; Alexander 2000; Cook 2001; 2002b; Dunbar 2003; Cook & Dunbar 2004; Dunbar & Cook 2004; Cook & Dunbar 2008; Cook *et al* forthcoming). **Kintore** is not yet fully published, but assessments of the distribution of the ovens will aid in our understanding of the layout of camps, and can also help

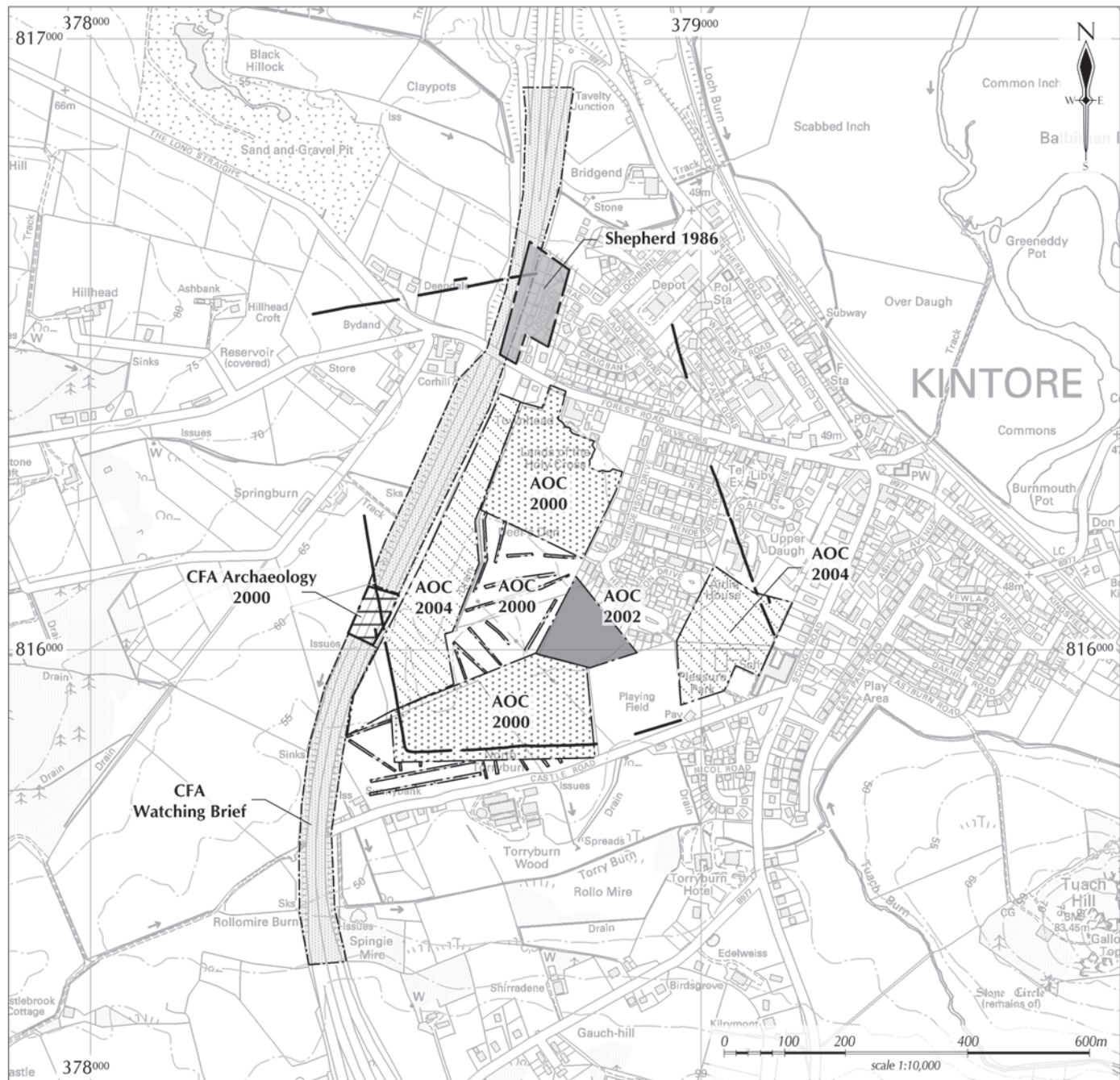


Illustration 18

Extent of the excavations at Kintore in recent years. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

with our suggestions of their length of occupation (see section 7f).

However, the small trenches placed through camps did have a purpose, particularly at sites such as **Ardoch** and **Lochlands**, where several camps intersect one another, and can provide extremely useful data in terms of relationships between camps of differing morphology and size. Elsewhere, the presence of a V-shaped ditch has often been enough to argue for a Roman military date, although as a result there remain a number of proposed but disputed camps, such as Easter Galcantry, also claimed as a fort by the excavators (Gregory 2001: 214, 216). The Gask Ridge project has also investigated a variety of small enclosures close to the Roman road, some previously discounted as camps, such as Upper Cairnie (St Joseph 1965: 82) and East Mid Lamberkine (where the evidence is far from conclusive, *contra* Woolliscroft *et al* 2002: 36–9; see Chapter 2), reinforcing Leslie's view on the near futility of small-scale excavation on such structures. Occasionally, additional camps are located by excavation, although this is rare, and only 2% of known sites have been recorded this way (table 2). The obvious examples are the location of an alleged second camp at **Cardean** (St Joseph 1973: 224), and of a possible annexe or third camp at **Kirkpatrick-Fleming** (Leslie forthcoming).

Another clue that excavations can provide is the reuse of camps, frequently invisible from the air unless the perimeter ditch was altered, as at **Dullatur** (illus 116). Although the perimeter ditch of the camp at **Kintore** demonstrated no evidence for reuse, the finds from the pits and ovens told another story (Cook forthcoming;

see section 7f). Elsewhere, recuts have been observed in the perimeter ditches, such as at **Dunning** and **Finavon**, which provide clues to later reoccupation of the camps (see section 7g).

Detailed topographic survey can also elucidate further information about camps, as was demonstrated at **Raeburnfoot** (illus 43; Jones and McKeague 2009) and at several upstanding camps in England (eg Chew Green: Welfare & Swan 1995, 85–90).

Remote sensing techniques have been deployed on some camps with a modicum of success. The application of airborne Light Detection and Ranging (LiDAR) is still in its early stages, but can help with the interpretation of slight earthwork remains and those under certain types of woodland (eg Bewley *et al* 2005; Devereux *et al* 2005). Geophysical survey has also played a role, disclosing the perimeters of suspected camps, such as **Ravenswood** (Clarke 1995: 6), and identifying new camps elsewhere in the province of *Britannia*: at Llanfor in Merioneth (Crew & Crew 1997), Hindwell Farm in Radnorshire (Gibson 1999: 67–8) (both in Wales) and at Middlewich in Cheshire, England (Welfare & Swan 1995: 181). Geophysics also has the potential to provide more information on the location of interior structures such as ovens and pits, as evidenced by recent magnetometry survey by the Römisch-Germanische Kommission (RGK) on the camp on the haughland at **Dalswinton** (Hüssen *et al* 2009a). Indeed, it is likely that in pastoral areas, geophysical survey could play a major role in identifying new camps and providing more information about known camps, unless current agricultural regimes change and arable is favoured over pasture.

Distribution of camps in Britain and farther afield

Currently nearly 500 camps are recorded in Britain (this figure includes reused camps where these can be identified, usually involving a partial reuse of the perimeter), of which almost half lie in Scotland (illus 19). No other province in the Roman Empire has such a proliferation of camps. This is probably mainly due to the long tradition of the application of aerial survey to archaeology (Chapter 4), although the antiquarian tradition (Chapter 3) has also played its role, as, indeed, have land management regimes. Recent flying programmes in other Roman provinces have identified new camps, and certainly there has been an explosion of information in places such as Slovakia and the Czech Republic in recent years (eg Kuzma *et al* 1996; Rajtár 1997; Komoróczy & Vlach in prep).

Camps are recorded or suspected across the Empire, from Azamia in Jordan (Kennedy & Bewley 2004: 174–5), to Ermelo in Holland (Bogaers 1974: 33–5; Klok & Brenders 1981: 9–10; Hulst 2007); from Transylvania in Romania (Cătănciu 1981; Stefan 1997) and Brigetio in Hungary (Visy 2003) to Spain (eg Morillo 2003). A number of camps have been recorded in various parts of Germany, including alleged practice camps outside Xanten (Horn 1987: 332–4). However, it is often siege works that have received more attention than ordinary camps, perhaps partly owing to the writings of Josephus and other classical authors. Masada in Israel has received the most attention (eg Richmond 1962; Yadin 1966), but siege camps also survive at a number of other locations (Campbell 2002; Davies 2006), from Machaerus in Jordan (Kennedy & Riley 1990: 99–101; Kennedy 2000: 119–21), to Numantia in Spain (Schulten 1914–31; Keppie 1984: 44–51; Salvatore 1996: 79ff; Dobson 2008).

A glance at the current distribution of camps in Britain, particularly north of Hadrian's Wall (illus 1 & 19) indicates a preference for camping close to Roman roads and fort sites (whether sited underneath a later fort site, one demarcated for fortified occupation, or one already in use). This is hardly surprising, because these generally represent, respectively, the best routeways through

territory and good sites for halting for periods. That the Romans had made maps of conquered territory is highly likely, and it has been argued that these may have taken the form of *Itineraries* (Austin & Rankov 1995: 116), thus reinforcing the idea of reusing routes and returning to an existing fort site (whether it was still occupied or not) to camp. Furthermore, the presence of camps in certain areas can suggest the route of unknown but suspected roads. For example, the camp at **Glenluce** (illus 20 & 138) lies close to the Roman road heading towards Loch Ryan, only recorded in the 1990s, and the probable camps at **Knowe Cottages** and **Bankhead Kirkconnel** indicate a routeway in the upper reaches of the Nith, as suspected by the discovery of a fortlet at Sanquhar and a branch of the road at Drumlanrig (Frere 1985a: 267).

Gathering grounds, such as those recorded near the forts of Ardoch, Camelon (Lochlands), Castledykes, Newstead, Glenlochar and Dalswinton, are known in the frontier zones across Britain (illus 21). These are areas where troops were regularly camped and marshalled before further advance. They are usually sited close to a fort, and in strategic locations related to movement through the landscape. Thus they are often located at a river crossing, and sometimes near a crossroads, at a point where there was often more than one direction in which an army was likely to campaign. For example, at Castledykes, the troops arriving could move onwards in three or four different directions (north-west towards Bothwellhaugh, west to Loudoun Hill, east to Lyne and Easter Happlew, and possibly north-east to Castle Greg); at Drumlanrig, troops arriving on the road running northwards through Nithsdale could either continue campaigning to the north-west up Nithsdale, or cross over the watershed towards the Clyde valley. There are numerous assembly places of this kind on the northern frontier and in the English–Welsh Marches, in areas controlling the routes to the north and west respectively. If a site was identified as a suitable camping ground, then there may well be reason to reuse on more than one occasion. An occupied fort could

potentially be a source of supplies for troops on the march, and troops could be bringing supplies to that fort. Some camps are probably contemporary with their neighbouring forts, whereas others will predate or post-date the forts' occupation. The largest gathering ground in Britain is that at **Lochlands** (illus 22 & 167) outside the fort of Camelon immediately north of the Antonine Wall, where some fifteen structures representing at least eighteen occupations can be identified close to a fort that has occupation dates in the Flavian and Antonine periods (RCAHMS 1963: 108–9; Maxfield 1981). This area was the main crossing point of the Forth–Clyde isthmus and was at a pivotal point on the Antonine Wall, possibly accompanied by a port on the River Carron (Tatton-Brown 1980). The only known gathering ground to the north of this complex is at **Ardoch** (illus 77). Beyond this camps are discovered as singletons or in pairs (the main exceptions being **Strageath** (with **Innerpeffray** and **Dornock** across the river – illus 201, 148 & 113) and at **Inchtuthil** – illus 145 & 146).

Unsurprisingly, Britain is not alone in having camp concentrations in areas that clearly saw intense military activity. For example, a number of camps are known around Bad Nauheim on a corridor into free Germany (Batz 1991: 175), and on either side of the Danube at Brigetio and Kelamantia (Komárom, Hungary and Komárno, Slovakia respectively, Visy 2003: 34–8; Rajtár 1997).

In addition to groups of camps recorded in the vicinity of forts, many are known flanking Roman roads such as Dere Street, the road leading from York via Corbridge probably towards the fort at Elginhaugh. In particular, clusters are recorded around the fort of High Rochester in Redesdale

(Northumberland), near **Cappuck** at the crossing of the Oxnam Water (see **Millside Wood** and **Ulston Moor** – illus 177), and close to the forts at Elginhaugh and



Illustration 19

Distribution map of known and probable camps in Britain. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Inveresk (illus 150), as well as small groups at **Pennymuir** (illus 191) and **Pathhead** (illus 190).

Away from known Roman roads in southern Scotland, the discovery of a camp at **Kaimhouse Lodge**, south-

east of West Linton, suggests a campaign route up the side of the Lyne Water, as well as the western route to **Castlecreaig**. A line of march from the forts of Easter Happrew and Lyne along this river leads to the camps of **Wester Happrew** and **Kaimhouse Lodge** before the route emerges at the fortlet of Tocherknowe, at the point where the Roman road running down the east side of the Pentland Hills crosses the Lyne Water.

The camps at **Castlecreaig** are situated close to the



Illustration 20

Aerial view of Glenluce, with the quarry pits of the nearby Roman road visible in the foreground, taken from the south-west in 1992. © Crown copyright: RCAHMS. SC1164108. Licensor www.rcahms.gov.uk.

convergence of the road running from the Rivers Tweed and Clyde and the road running from the Upper Clyde up the east side of the Pentland Hills. The cross route from Tweed to Clyde continues to the fort at **Castledykes** and beyond. This fort, one of the gathering grounds noted earlier (illus 21), is surrounded by four temporary camps (two of which demonstrate at least two phases of occupation) (illus 23 & 101), and its nodal function in the road network is clear. Further routes to the fort at Loudoun Hill and possibly to the fortlet at Castle Greg (perhaps via the nearby fortlet at Bankhead near Carnwath just to the east (Hanson 1991: 104)) presumably also ran

from here. No camps are at present confirmed on this line. A further three camps are located within 2.5km of **Castledykes** (two at **Cleghorn** and one at **Carstairs Mains**). The location of these three camps some distance from the fort might suggest that the usual camping ground near the fort was unsuitable or unavailable, or that the fort was not occupied (or even built) at that time.

Camps are also recorded flanking the main Roman roads through Nithsdale and Annandale. In the route into southern Scotland, the lower Annan valley is dominated by Burnswark Hill, and close to this lies the fort of Birrens. At least four camps are recorded in the vicinity of the fort (**Birrens** and **Broadlea** – illus 86), with a further two at **Middlebie Hill** some 1.5km to the north-west. As with the camps located a short but significant distance from **Castledykes**, the location of the camps at **Middlebie Hill** some distance from Birrens might suggest that the fort was not occupied or not built at that time. Running up Annandale, a further cluster lies some 700m north-west of Milton at **Beattock**, on the valley floor of the Evan Water, and a combination of aerial evidence and the alluvial deposits has led to proposals of their possible dates (Jones 2009a: 871–2; see Chapters 7b and 10.1 below).

A number of camps are known on the Roman road leading between Annandale and Nithsdale, reaching the cluster around the Flavian forts at **Dalswinton** and then probably continuing west to **Glenlochar** on the River Dee (illus 21). The Roman road up Nithsdale continues to **Drumlanrig** and then appears to split into two. The fort at Drumlanrig is sited at this crossroads, with one route continuing up the Nith towards the fortlet at Sanquhar and beyond (where a further probable camp is attested at **Knowe Cottages** and alleged at **Bankhead Kirkconnel**), the second branching north-eastwards towards Clydesdale, past the fortlet and camps at **Durisddeer**, joining the Clyde and Annandale roads just south of **Crawford** (Maxwell 1989: 74). Given the convergence of routes at both **Crawford** and **Drumlanrig**, it is no surprise that several camps accompany both. While only three are known close to **Drumlanrig** (one of which is located at **Islafoot** across the river near Castlebank ford) (illus 114), two more lie less than 2.5km to the south at **Carronbridge** and **Waterside Mains**, although there is a question mark over the interpretation of the latter camp. In addition, the majority of the area around Drumlanrig fort is in parkland, and it is possible that more camps lie undetected. While this fort is suspected to be Flavian in date (Maxwell & Wilson 1987: 19–20), recent excavations by Time Team in 2004 (Hunter 2005: 401–2) failed to locate occupation earlier than the Antonine period. A

level of complexity is visible from the cropmarks of the fort and its annexes, and it is possible that the excavations did not go sufficiently deep to locate any Flavian phases, the trenches in its interior being small-scale and shallow. Parts of the camp at **Carronbridge** have been excavated, and an oven located outside the entrance was radiocarbon-dated to a broad Roman date range, AD 25–240 (Johnston 1994: 258–9).

The discovery of camps located some distance from the Roman road network hints at penetration routes which may not have been consolidated when fort and road building was ongoing. The concentration of camps around the Flavian and Antonine forts of **Glenlochar** on the River Dee, west of Nithsdale, suggests a potential north–south marching route up the Dee, as well as west into Galloway. The recent discovery of a possible fortlet at Lochrutton (Hunter 2005: 402) and possible camps at **Shawhead** supports the idea of a routeway or possible road from the River Nith to Glenlochar, close to the route taken by the A75 or the nearby Military Road. No further camps are currently known up the valley of the Dee, but this is an area that has seen less aerial reconnaissance than other parts of the country (Cowley 2002). Indeed, if there were an invasion route up the Dee, possibly on the path later taken by the modern A713, then this, combined with the Drumlanrig to Sanquhar road in the upper Nith, and the Loudoun Hill road west of Castledykes, would indicate the location of a nodal point on the west coast in the vicinity of Ayr or Troon. The Roman road west of the camp at **Glenluce** is last recorded at Souleseat Loch, but its continuation would suggest a fort somewhere on Loch Ryan. This, combined with the presence of two camps at **Girvan**, midway between Loch Ryan and Ayr, attests to campaigns and a Roman presence in the far south-west of Scotland, and further archaeological evidence should be sought

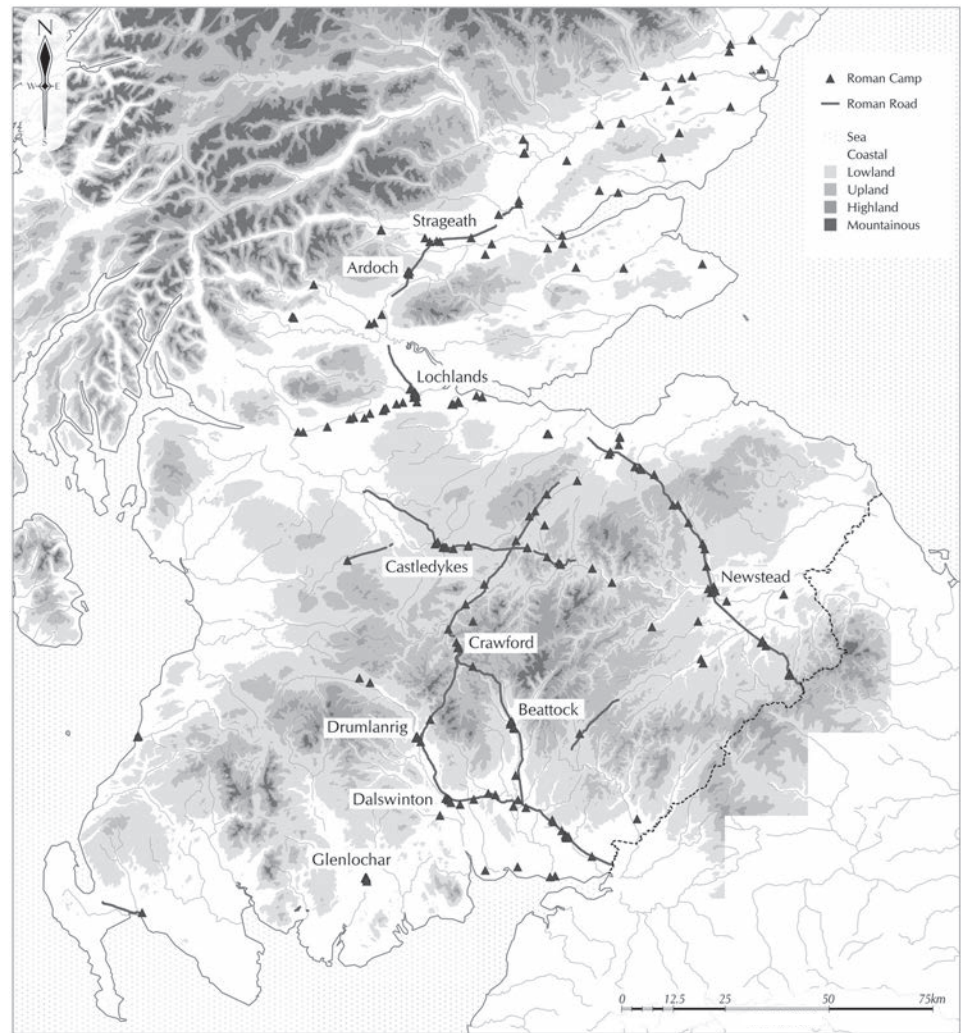


Illustration 21

Distribution map of the main gathering grounds in southern Scotland showing camps with gathering grounds (named), Roman roads and rivers. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

to corroborate this. Certainly, more camps must await discovery in this area.

Across the Forth–Clyde isthmus, most of the camps along the Antonine Wall probably relate to its construction (Jones 2005b), excepting the large gathering ground at **Lochlands** (illus 22 & 167). North of the isthmus, a number of camps are recorded alongside the Roman road that ran along the Gask Ridge towards Perth, notably around the forts at **Ardoch** and **Strageath**.

The camps at **Ardoch** cluster around the fort (illus 24 & 77) and various attempts have been made to establish their relative chronology, with degrees of success (St Joseph 1970a: 167–9; Hanson 1978a: 146–9). **Ardoch** is an important site for the establishment of chronologies for the various ‘series’ of campaign camps that have been

proposed (Chapter 9). This clustering and overlapping is in contrast to those camps close to Strageath which form a more disparate group around the fort, with one (**Strageath Cottage** – illus 201) lying on level ground immediately west of the fort, but the remaining three located across the River Earn at **Innerpeffray** and **Dornock**. The two at **Innerpeffray** (illus 148) are located on relatively level ground immediately east of the crossing of the Earn and close to the road cutting at Innerpeffray Library (Frere & Wilkes 1989: fig 4; Woolliscroft 2005a). The location of the camp at **Dornock** (illus 113), some distance from the road, may suggest that it predates the fort, and an early date has been proposed (St Joseph 1969: 114; Frere & Wilkes 1989: 7).

North of **Strageath**, camps are recorded either as singletons or in pairs (such as **Grassy Walls** and **Scone**

(see Crawford 1949: 67–9). The camps that are dotted along Strathmore give an indication of routeways, and a possible stretch of road is recorded between the camps of **Keithock** and **Stracathro** aligned towards the fort at the latter (Don 1896: 42). Some of the camps are close to one another (such as **Marcus** and **Finavon**, lying about 1km apart), but these probably relate to the use of known routeways rather than contemporary occupation. The choice of certain sites on which to camp may have followed territorial *Itineraries* (Austin & Rankov 1995: 116).

In northern Scotland, north-east of the Mounth, the camps march in an arc around the edge of the Grampian massif. The battle of Mons Graupius has been claimed at various sites in this area, but none of the claims is confirmed (Maxwell 1990). It is this northern group of camps that

was critical in the development of St Joseph's theories for various 'series' of camps representing troops on the march (St Joseph 1958; 1969; 1973; 1977). A search for the northernmost camp in the Empire has led to claims for various rectilinear enclosures along the Moray Firth, but none has stood up to scrutiny (Gregory 2001). The most enigmatic site is the possible camp or camps at **Bellie**, in Speyside, where the evidence is highly suggestive but not conclusive. The camp at **Kintore**, in Aberdeenshire, has been subjected to numerous excavations in recent years, providing a wealth of information about the Roman army in this area (illus 18). Dating evidence gathered thus far is suggestive of a Flavian foundation, although there are also occasional 3rd- and 4th-century finds from the site (Alexander 1996; Cook & Dunbar 2004; 2008).

While the tendency for camps to be situated close to Roman roads and routeways has been observed, there was also an obvious need for them to be sited close to water. Both Vegetius and Hyginus commented that the site should be safe and close to a river or spring (*Epitoma* I.22; *de munitionibus castrorum* 57). This was a relatively straightforward task in North Britain given the general geography and terrain, and certain



Illustration 22

Aerial view of part of the camps II, III, IV, V and VI in the gathering ground at Lochlands, taken from the south-east in 1983. © Crown copyright: RCAHMS. SC1164523. Licensor www.rcahms.gov.uk.

Park – illus 140), the only exception being on the plateau outside the fortress at **Inchtuthil** (illus 145) (see section 7f).

North from the Roman fort of Bertha, on the north side of modern Perth, the Roman road is presumed to run towards the forts at Cardean and Stracathro, although very little evidence of this remains beyond hypothesis



Illustration 23

Aerial view of part of the camps I and II at Castledykes (both of which exhibit at least two phases of use), lying to the north of the fort, taken from the west in 1984. The 'Stracathro-type' gate on the south-east side of Castledykes I can be clearly seen, together with a nearby field system. © Crown copyright: RCAHMS. SC1164049. Licensor www.rcahms.gov.uk

valleys formed natural lines of advance, such as Redesdale in Northumberland, and Nithsdale and Annandale in south-west Scotland. The complex at **Newstead** (illus 183) sits at the point where Dere Street crosses the River Tweed, but quite a number of camps are known farther down the Tweed Valley on the south side (for example, two or three at **Mertoun Bridge**, **Wooden Home Farm**, **Carham**, **East Learmouth**, **Norham** (the latter three in Northumberland) and a possible camp at **Maxton**). Dere Street continues north up the Leader Water, a tributary of the Tweed, flanked by camps, and a routeway clearly continued up the Tweed to the forts at Easter Happrew and Lyne and then up the Lyne Water, as observed earlier. This latter route connected across into the Clyde Valley via **Castle Craig** and **Carnwath**. Other camps in the Scottish Borders indicate advance along other tributaries of the Tweed, such as the River Teviot (with camps at **Cavers Mains** and **Eastcote**) and the Ettrick and Ale Waters (the camps of **Oakwood** and **Milrighall**). It is hardly surprising that marching routes frequently took the convenient river valley routes, but the presence of

camps and forts in certain valleys gives an indication of the way in which these were utilised, particularly in the smaller valleys such as the Ale Water. North of the isthmus, the Rivers Earn and Tay in particular also demonstrate communication and invasion lines, and lines of march can be clearly observed on either side of the rivers and bogs of Strathmore. Camps, and indeed forts, are often sited at suitable river crossing points, such as **Newstead** on the Tweed, where the majority lie on the south side of the river close to the fort, but a solitary camp is known on the north side at **Drygrange**.

The largest camp currently known in the Roman Empire, **St Leonards**, was constructed on the most suitable ground in the immediate area, on a gently undulating ridge above the Leader Water (illus 195). This situation, with camps sited on low ridges above watercourses, appears to be reasonably common for camps in Scotland. There may have been less choice of terrain for a force choosing to camp outside an existing fort, but presumably there were other factors in selecting that location, and the benefits of camping close to a stationary force would have outweighed any minor topographical disadvantages.



Illustration 24

Aerial view of parts of camps I, II, III and IV lying around 500m north-west of the fort at Ardoch, taken from the north-west in 1986. © Crown copyright: RCAHMS. SC355878. Licensor www.rcahms.gov.uk

Marching camps were sited on routes of advance. When clusters of camps exist, these indicate periodic occupation and reoccupation of a suitable location and may imply troops massing for major campaigns, troops on manoeuvres, and/or troops bringing supplies to an existing fort. Some may have been occupied temporarily while larger constructions such as forts, fortlets and frontiers (eg the Antonine Wall) were being built, but the majority of camps in Scotland are generally interpreted as marching camps rather than construction camps (see Chapter 2). Not all camps represent the movement of infantry or land-based forces and perhaps others could have been occupied by marines from the fleet or delineate

supply bases in use for particular campaigns at points where land and sea troops would meet, the latter possibly bringing additional supplies for the former. Certainly Tacitus refers to Agricola's army pushing forward simultaneously by land and sea (*Agricola* 25). Coastal camps are known along the north side of the Solway Firth, on both sides of the Tay estuary and overlooking the North Channel at **Girvan**, but what relationship these may have had to the Roman fleet is unknown. The understanding of the location of camps in relation to other Roman structures is important when assessing the various campaigns and analysing the arguments that have previously been proposed.

CHAPTER 7

The field evidence

7a Defences

The significant elements of a camp that enable it to be detected archaeologically are the enclosing rampart and ditch and any gate defences (illus 25), although the



Illustration 25

View of a section of upstanding rampart and ditch of Kirkbuddo, surviving in Whig Street Wood.

majority in Scotland are only visible as cropmarks where all surface indications have been ploughed flat. If a camp was not defended by the erection of a bank and/or the cutting of a ditch, then it is very unlikely that it would survive to be detected by modern methods. For example, Germanicus pitched camp in Germany with earthworks to front and rear and palisades on his flanks (Tacitus *Annals* I.49). Only the earthworks would be likely to leave an archaeological trace, although the recovery of palisades is well documented in the archaeological record. But the incidences of two parallel narrow linear cropmarks occurring together are so frequent as to preclude their identification as Roman without excavation and further supporting evidence. Furthermore, if the camp was originally contained within defences that were slight or without a ditch (Vegetius *Epitoma* I.24), then little might survive to be detected today.

Camps are often first identified from the air through the regularity of the linear cropmarks, any evidence of a protection for a gate or perhaps a change of alignment at an entrance break, and their rounded corners. It is this regularity in defensive line and corner that often enables a short stretch of cropmark, for example **Applegarthtown** in Dumfriesshire (illus 26 & 76), to be identified as Roman with some confidence. In previous years, aerial surveyors seeking to confirm their observations have mounted active excavation campaigns on the perimeter defences, and these have often been only fleetingly reported on in summary articles (St Joseph in various *Journal of Roman Studies* articles; Maxwell & Wilson 1987). The body of evidence that has now been gathered from aerial survey rarely requires a trench to confirm a V-shaped ditch before a site is published as Roman in date (for example, **North Slipperfield** – Keppie 1996a); although at times, the excavation evidence has been deceptive. At Logie, just north of the Montrose Basin, repeated excavations by St Joseph on a linear cropmark with a V-shaped ditch led him to claim the site as a probable camp (1973: 226). Further extensive trenching at the site led him to retract



Illustration 26

Aerial view of the north corner of Applegarthtown and stretches of the adjacent sides, taken from the south in 1989. © Crown copyright: RCAHMS. SC1164054. Licensor www.rcahms.gov.uk.

the statement, preferring to see the remains as those of post-medieval boundary ditches (St Joseph 1978a: 279n). However, not all the work by St Joseph and others was aimed at confirming whether a site was Roman; elsewhere excavations were conducted to assess the continuation of a ditch identified by air photographs in an attempt to

understand more about the size and further details of the camp (eg **Logie Durno** (illus 27) – St Joseph 1978a).

The impact that St Joseph had on temporary camp studies has already been mentioned (Chapter 4; Jones 2005a), with excavation subservient to the primary aim of discovery and confirmation (Leslie 1995). Yet a glance through his notebooks held by RCAHMS confirms the volume and scale of St Joseph's operations on camps in the north. Between 1956 and 1984, there were only three years when he was not conducting excavations of any type on a camp in Scotland, but in those three years he was excavating either elsewhere in Britain or on other Roman sites in Scotland, such as the fortlets at Cargill and Gatehouse of Fleet. Moreover, of the camps now known or suspected north of the Forth–Clyde isthmus, some 70% have been subjected to some form of excavation by St Joseph, and his influence on camp studies through excavation as well as aerial survey cannot be underestimated. However, in the same group of camps north of the isthmus, some 39% have been subject to some form of excavation or watching brief by others, ranging from early 20th-century excavations at **Gask House** (Christison 1901: 35–6) to more recent watching briefs such as in the interior of the camp at **Little Clyde** (Sneddon 2007), where nothing was found.

Evidence for internal features at most sites remains slight (see 7f below), partly because of a lack of investigation, but also because they are likely to be relatively slight owing to their temporary occupation in comparison to more permanent forts. This is one reason why camp excavations have tended to concentrate on the defences and entrances. Perhaps unsurprisingly, given the area enclosed, their

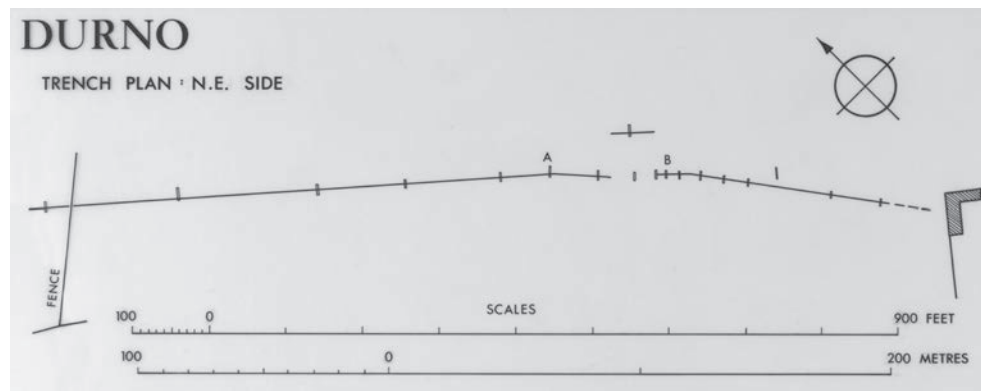


Illustration 27

Example of the small-scale trenches cut through Roman camps to detect continuation of lines recorded through aerial photography – excavations on the north-east side of Logie Durno, conducted by Professor J K St Joseph in 1977. © Courtesy of RCAHMS (Professor J K St Joseph Collection). DP071206. Licensor www.rcahms.gov.uk.

perimeter dimensions in terms of the height, depth and width of the rampart and ditch also vary considerably. Some camps, such as those at **Burnswark** and **Pennymuir**, survive as upstanding remains with their bank visible to a considerable height, with a clearly discernable ditch. The ditches at **Little Clyde** and **Raedykes** may have been rock-cut in places, although this has not yet been proved by excavation. **Ward Law** (originally believed to be a Roman fort) did display a rock-cut ditch on excavation (Truckell

to a genuine siege (see Chapter 2 above), then perhaps a greater level of permanency in the defences could be expected.

Elsewhere, only a small proportion of upstanding remains may survive, such as **Kair House**, where two short stretches of the north-east side are preserved in a conifer plantation and overgrown grass field and **Kirkbuddo** (illus 25 & 160), where part of the perimeter is clearly visible in woodland. At **Battledykes**, **Oathlaw**,

only a single *titulus* survives, with most of the remainder of the camp now known from cropmarks. The history of the levelling of this camp can be partially traced through the archaeological literature since its discovery by Captain Melville in 1754 (Balfour-Melville 1917: 123n; Jones & Maxwell 2008). Roy's plan of the camp, dating to the following year, depicts most of the north, east and south sides and part of the west, along with five gates protected by *tituli* (1793: Pl. XIII; Jones & Maxwell 2008). By the time that Crawford planned the site, only parts of the east and south sides survived, along with a *titulus* on the north side (1949: 95–7). By 1958, all that remained of the camp was the *titulus* (OS Recorder 1958), which can still be seen today within a plantation, with much of the rest of the camp recorded as cropmarks on air photographs (illus 28, 29 & 84).

Excavations through upstanding ramparts of camps are rare, but the rampart of the camp at **Pennymuir III** was observed in the cutting for a drainage trench as being formed of

mixed peat and sand from the ditch, measuring some 2.1m wide and 0.3m high (RCAHMS 1956: 376–7). That in Innerpeffray Wood (part of **Innerpeffray East**) was also composed of upcast material from the ditch (RCAHMS St Joseph Collection: Notebook 4). At **Ythan Wells I**, the excavators noticed that the rampart was constructed of loose earth and stones, on a bed of clay some 7cm thick (Macdonald 1916: 357–8). Excavation at Pen-y-Gwryd in Caernarvonshire demonstrated a turf-packed rampart within a turf revetment, although there were traces of a



Illustration 28

Plan of Battledykes, Oathlaw, made by William Roy in 1755 (Plate XIII from 'Military Antiquities of the Romans in Britain'). © Courtesy of RCAHMS (Society of Antiquaries of London). SC923908. Licensors www.rcahms.gov.uk.

1950: 203–4; Truckell 1952: 142), as did **Channelkirk** (St Joseph 1957: 13) and both camps at **Hillside Dunblane** (Robertson 1969). This represents a surprising amount of labour for something that was probably occupied for a short period of time. Excavations at **Tollpark** revealed a large boulder in the bottom of the ditch, which appeared to have been partially cut through to continue the V-shape of the ditch (White forthcoming). The camps at **Burnswark** also demonstrated on excavation to have ditches that were rock-cut in places (Barbour 1899), but if they did relate



Illustration 29

Aerial view of the north-west corner of Battledykes, Oathlaw, and stretches of the adjacent sides, taken from the north in 1990. One of the probable souterrains recorded in its interior can be seen just to the left of the centre of the photograph. © Crown copyright: RCAHMS. SC1164090. Licensors www.rcahms.gov.uk.

stone revetment at one corner (Davies & Jones 2006: 101). Vegetius refers to the use of turves in the construction of the rampart (*Epitoma* I.24; III.8), and Welfare & Swan comment that turf was the preferred construction material (1995: 17). The visible field evidence in Scotland broadly confirms this observation, but many of the surviving upstanding stretches of rampart are now grass-covered and their firm attribution to a turf construction cannot be made without intrusive examination. The excavated evidence, however, demonstrates that far more than just turves were in use, and gives further weight to support Hyginus' summary of a 'rampart of turf, stone, rocks or rubble' (*de munitionibus castrorum*: 50), depending on the available materials.

The traces of rampart visible in the archaeological record give an indication of the massive and imposing nature of the camps, and can only begin to conjure up the visual reality and activity of a camp occupied by thousands of troops. At sites like **Raedykes**, **Kirkbuddo**, **Burnswark** and **Pennymuir**, the sheer scale of the rampart and ditch can begin to be appreciated (illus 25). Historical sources, such as Roy and his successors, play a valuable role in

furnishing additional information subsequently removed by the plough, such as information about **Battledykes**, **Oathlaw** (illus 28 & 29), details on the gates at **Dalginross** (see 7b below) and further information on **Raedykes** (Roy 1793: Pl. XI, L).

Evidence for the ditches of camps is equally varied, and the size of ditches regularly differs between one side of a camp and the other. This is likely to be partially due to survival rates in the intervening millennia, but could represent real choices made during their construction; after all, if it is possible to mix banks with palisades across the perimeter of the camp (Tacitus *Annals* I.49), the differences in the scale of ditches should not surprise us. Furthermore, not every group of troops might construct their sector of rampart and ditch identically to the next group, and the ground conditions will naturally play a significant part. St Joseph undertook excavations on the camp at **Craigarnhall** on four separate occasions, and the ditch varied from 3m wide and 1.5m deep to only 1.5m wide and 0.4m deep (RCAHMS St Joseph Collection: Notebooks 6 & 7). Although this can be partly explained by differing survival rates, the lack of uniformity may also be due to the work of different units, the nature of the subsoil, and possibly the perceived threat to that side if there were additional natural defences. Similar variety in ditch dimensions has also been observed at **Kirkpatrick-Fleming I** (Leslie forthcoming). Nevertheless, there must have been a general size of ditch to which all the work parties were attempting to conform. The ditch of the camp at **Kintore** has revealed slightly differing dimensions at different points on the circuit during various excavations, although the majority of trenches have revealed a substantial ditch, ranging from 1.4–4.0m wide and 0.5–1.8m deep (Shepherd 1987; Rees 1996; Alexander 2000; Cook & Dunbar 2008: 126–30).

The camp at **Raedykes** has revealed the largest ditch so far on excavation, but this should perhaps be expected in a camp where preservation and survival have been extremely good. However, the ditch of the camp at **Newstead V** may be even larger (6m wide and 2m deep). Although the excavators were not certain that this was the camp ditch that they were excavating (Clarke & Jones 1994), it does seem likely from its location. Macdonald's excavations at **Raedykes** identified that the ditch was V-shaped, about 4.5m wide and 2.1m deep, and faced with puddled clay up to 5cm thick. In some trenches he noted that it was far smaller, measuring only 2.6m wide and 0.45m deep, and he noted that where the ditch was smaller, the rampart was also smaller. These lesser dimensions were apparently employed in areas on

the camp where the ground rendered an attack from that angle unlikely (1916: 332–5).

Elsewhere, camp ditches have quite a varied survival rate, and in some instances the defences have survived owing to their incorporation into later landscape features (7h below). Excavations at **Lochlands VI** revealed only the remains of the base of the ditch, the rest presumably having been ploughed away (see gazetteer). This ditch has only occasionally been visible on air photographs and the degraded remains explain why the cropmark has proved so elusive during repeated years of aerial reconnaissance. St Joseph excavated the camp at **Auchinhove** on several occasions, observing in 1959 that the ditch measured only about 0.85m in width by about 0.7m in depth (RCAHMS St Joseph Collection: Notebook 2). His other excavations on this site in 1956 and 1971 do not give

camp could be of Stracathro-type (see section 7b), but further excavation at the entrance gap failed to produce evidence of a projecting ditch (St Joseph 1969: 111), and, indeed, *tituli* have been subsequently recorded through aerial survey (illus 127). Neither can the presence of a small ditch, as at **Finavon**, or a large ditch, as at **Raedykes**, necessarily be taken to be an indicator of gate type or camp size. The camp at **Stracathro** itself had a fairly typical ditch for a camp whose above ground features have been levelled, measuring some 2.9m in width by 1.2m in depth (RCAHMS St Joseph Collection: Notebook 4), while the ditch at the Stracathro-type camp at **Beattock Bankend** ranged up to 2m wide and up to 0.9m deep (Leslie 1995). It is apparent from all the excavations conducted thus far that sections across the defence perimeter will reveal quite varied results, often from the same side of the same camp.

Occasionally this may be hinted at in the cropmark evidence. The west side of **Normandykes** exhibits a slightly irregular cropmark, relatively unusual in Roman camps, but clearly part of the camp, owing to the presence of an entrance (illus 30 & 185). Only the north side and the north-west corner appear to have been subject to any form of excavation (Simpson 1943: 57–8; RCAHMS St Joseph Collection: Notebook 6). A further interesting feature on the perimeter of **Normandykes** is a pronounced kink in the south side, east of a gate. There may be a corresponding kink in the north side, but the line of rampart and ditch in this area is blurred by the edge of a plantation and its accompanying drains. Nevertheless, the excavations on the north-west corner did suggest that the camp ditch ran almost under the modern stone dyke and, if this is the case along the

rest of the western part of the north side, then a slight bend just before the plantation can be suspected. Changes in alignment normally occur at entrances to camps (for example **Girvan Mains East**; **Grassy Walls** (eg illus 46 & 140); **Innerpeffray East** and **St Leonards**), and the reason for the slight bend in the sides at **Normandykes** is not readily explained: the ground is reasonably flat and there is no obvious topographical justification. One



Illustration 30

Aerial view of the west side of the camp at Normandykes, taken from the north in 1982. © Crown copyright: RCAHMS. SC355259. Licensor www.rcahms.gov.uk.

detailed dimensions, but the sketches in his notebooks again depict a very small V-shaped ditch (RCAHMS St Joseph Collection: Notebooks 1 & 6; St Joseph 1958: 93). Excavations at **Finavon** (in 1963–4) also produced a small ditch, noted as being ‘only 4½ft. wide and 2½ft. deep [*c* 1.4m wide by *c* 0.75m deep], dimensions close to those of the tiny ditch of the camp at Auchinhove’ (St Joseph 1965: 83). These dimensions were used to suggest that the

suggestion could be that it relates to the reuse of the site, or that a camp was extended on the arrival of more troops. However, the (admittedly small-scale) excavations demonstrated no evidence for reuse, and there are no other visible linear cropmarks connecting the sides near the kink. Another explanation could be that the camp was laid out by two groups of troops, perhaps surveying from either end, who needed to adjust their sides upon meeting. The camp on the north side of **Burnswark** Hill also displays unusual changes of alignment in its north-west and south-east sides. This camp almost gives an impression of two camps stuck together, built on different alignments then connected in the central sector, if at all, because there is a poorly drained wet area on the north-west side and a full ditch may not have been excavated in this sector, perhaps just a palisade being employed (illus 44 & 92). As with **Normandykes**, there is no obvious topographical reason for the sudden change, unlike the camp at Milestone House on the Stanegate, which narrows significantly at the east end owing to the presence of a steep escarpment (Welfare & Swan 1995: 116–18).

The camp at **Kintore** exhibited an additional undefended break in the south side, west of the likely



Illustration 31

Aerial view of the south-west corner and stretches of the adjacent sides of the camp at Kintore, taken from the east in 1976. The palaeochannel which runs through the south side of the camp can be clearly seen in the upper left part of the photograph. © Crown copyright: RCAHMS. SC909305. Licensor www.rcahms.gov.uk.

entrance location and close to the south-west corner. The reason for this was the location of a palaeochannel, also clearly visible on air photographs (illus 31), which is assumed to have been a watercourse during the Roman occupation (Cook & Dunbar 2008: 128–34). Watercourses are visible in a number of camps, and there is no reason to assume that all have eroded through the camps after the Roman occupation, or were old and filled in before construction. At **Kirkbuddo**, part of the south-west side is invisible on air photographs owing to the presence of an area of wet ground, and this has been the case since the camp was recorded by Melville in 1754 (Roy 1793: Pl. XIV, illus 32). There is a slight change of direction at this point, which may indicate that the wet ground was present in Roman times, because the change of direction does not appear to have been at the point of an entrance. **Burnswark South** has been bisected by a stream, known as ‘Agricola’s Well’, presumed to have been contemporary with the occupation of the camp (Barbour 1899: 223) (illus 8 & 92). Elsewhere, the Gelly Burn meanders through the eastern part of **Innerpeffray East** (illus 148), and the Evan Water and Clydes Burn cut through the north-western section and the south-east corner of **Little Clyde** (illus 165). In some parts of the country, the inclusion of a small burn may have been inevitable in the search for a camping ground suitable for holding a sizeable force. Certainly **Innerpeffray East** occupies a significant area of land, and any attempt to take in nearly 56ha (138 acres) would be likely to include some less desirable ground, particularly if the camp builders were also attempting to avoid the nearby camp of **Innerpeffray West** (although it is curious that this avoidance of the neighbour has clearly not been of importance in the two similarly sized camps at **Ardoch**). While **Little Clyde** is significantly smaller than **Innerpeffray East**, it seems likely that the desire by the camp builders to site the camp on level ground close to the Roman road took precedence over any concerns regarding the streams.

The corners of camps are usually rounded, because the creation of a sharp angle would present a constructional weak point and be easier to destroy, particularly if it was built of turf. It has been observed in masonry structures that rounded corners are easier to build when using unskilled labour (Hill 2006, 100). Hyginus stated that the corners should be at an angle of 90° (*de munitionibus castrorum* 54), but this is not always strictly adhered to, particularly where there has been a change of alignment partway along a side of the camp (for example, **Auchtermuchty**; **Innerpeffray East**), or the camp exhibits an irregular form (for example, **Woodhead II**). Certainly, a gently rounded angle avoids

a sharp point, which would be easier to attack, and also provides additional defence in terms of the number of men who could be employed on the perimeter.

Additional defences for camps, such as a breastwork or palisade (illus 33), are attested in classical literature (Gilliver 1993b), but leave little or no archaeological trace.

Both Livy (XXXIII: 5) and Vegetius (*Epitoma* I.21, 24; III.8) refer to a palisade atop the rampart, and Varro refers to V-shaped or forked sticks on a camp wall (*de Lingua Latina* V.117). It has been suggested that the so-called *pilum murale* (or *pila muralia*) found at Great Chesters on Hadrian's Wall and elsewhere could have been used to form some sort of additional defence around a temporary camp (Bennett 1982). The provision of a central 'grip' or 'waist' in the middle of these sharpened stakes (or *valli*) has given rise to the suggestion that they could have been lashed together in the form of a caltrop, like the small examples in iron known from various locations (eg Newstead, Curle 1911: Pl. XXXVIII, 14), but it would equally have made them easier to carry. They were also sharpened at both ends, which reinforces the suggestion that they would have pointed out towards the enemy rather than just have been lashed together as a palisade. A strong palisade placed somewhere on the rampart of a camp would be expected to leave a trace in the upstanding remains where these survive to a sufficient height, although there has not been enough excavation or other detailed analysis to test this. However, possible stake holes were identified during excavations on the *claviculae* entrances at **Castledykes I** and **Dalginross I**, and these may be a hint of additional contemporary defensive features. But, if caltrops were used, these might only rest on the surface, leaving the archaeological evidence slight or non-existent. Hyginus refers to five possible

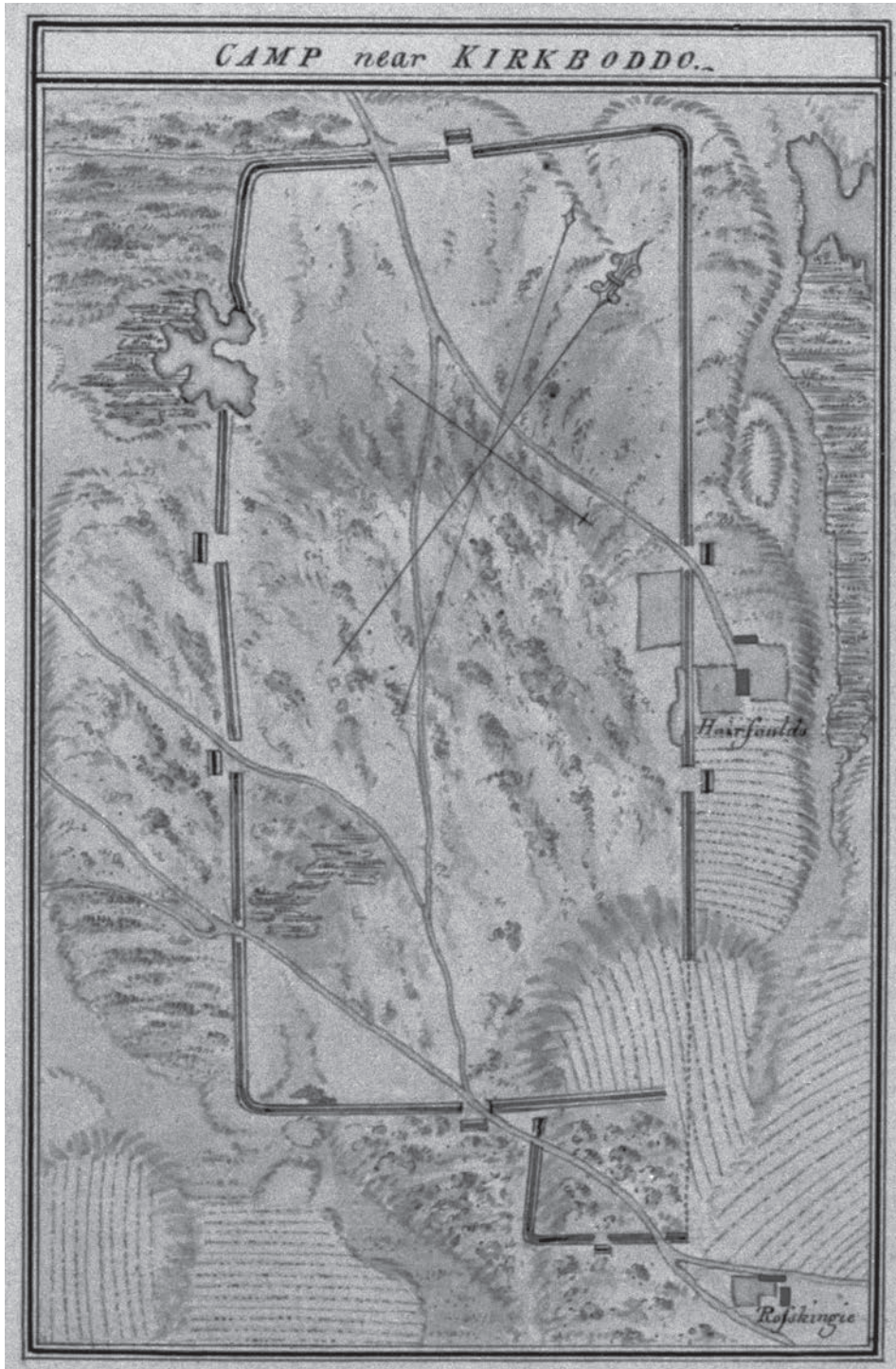


Illustration 32

Plan of Kirkbuddo made by William Roy in 1755 (part of Plate XIV from 'The Military Antiquities of the Romans in Britain'). The camp is drawn with its south-east side at the bottom of the illustration. © Courtesy of RCAHMS (Society of Antiquaries of London). SC923914. Licensors www.rcahms.gov.uk.



Illustration 33

View of a reconstruction of a section of the defences of a Roman marching camp with a palisade at Carnuntum, Austria (taken in 2005).

types of camp fortifications: ditch, rampart, stakes, stockade and weapons (*de munitionibus castrorum* 48), and goes on to state that the use of these depends on the location and availability of various building and defensive materials. Gilliver has highlighted the ‘barbed wire effect’ of having overlapping caltrops placed on, alongside, or in place of ramparts (Gilliver 1993b: 51, fig 1), and this is amply demonstrated at the former reconstruction of a small part of a Stracathro-type camp at Archaeolink Prehistory Park in Aberdeenshire, which utilised caltrops set onto the upper front face of the rampart (illus 34).

Caesar makes reference to an *ericus*, a beam studded with spikes in front of the entrance (*de Bello Civili* III.67; Gilliver 1993b: 52–3; Bennett 1982: 204). Whether or not an *ericus* deployed across an entrance would leave trace in the archaeological record depends on how it was placed into the ground. There is no obvious evidence for such, although the additional ditch across the entrance at **Eskbank I** was interpreted as a trench for temporary hurdling, and similar features elsewhere have been interpreted as drains (Maxfield 1975: 144–7).

Caesar also reported that he utilised large forked branches above the palisade of his siege camp at Alesia, and dug *lilia* in front (*de Bello Gallico* VII.72–3). Forked branches and other brushwood could also have been used to provide additional defences around a camp, and hawthorn was found buried in the ditch of the structure below the fort at Bar Hill, which may have been employed in a defensive capacity (Jones 2005b). No evidence has been uncovered for any *lilia* constructed outside temporary camps, although admittedly there have been very few excavations of areas outside temporary camps. Pits are visible on air photographs at some sites (for example, **Glenlochar** and **Inchtuthil** both have numerous pits within and outside the camps; see section 7f), but their date and function is unknown. Certainly, there is no evidence from air photographs of defensive pits constructed outside a camp in the regular manner of those known on Hadrian’s Wall and the Antonine Wall, although a regular line of pits is clearly visible on air photographs outside the west side of **Drumlanrig I** (illus 114). The labour expended in the construction of the camp was presumably enough



Illustration 34

View of a reconstruction of a section of the defences of a Roman marching camp with 'caltrops' at Archaeolink Prehistory Park, Aberdeenshire (taken in 2004).

for a temporary occupation without digging such extra features unless extreme circumstances prevailed.

The presence of an 'ankle-breaker' slot has been noted during excavations on a few camps. These are additional small trenches at the bottom of the V-shaped ditch. Although recently dismissed as a feature of the ditch on Hadrian's Wall (Wilmott 2006), such slots are occasionally recorded on camps. They are often seen to identify regular cleaning of the camp ditch (rather than performing a function to break the ankle of anyone falling into the ditch at an awkward angle), but the possibility that they may have held an additional constructional defensive feature is rarely entertained. The sharp V-shaped ditch at **Lochlands VI** that was the only feature to survive could equally be interpreted as a palisade trench (information from G. Bailey, who visited the site during its excavation). That such slots at the base of ditches, or even in place of ditches, could have held a form of an *ericus*, stockade or forked branches and brushwood, remains a possibility.

One final observation can be made regarding the defensive perimeters of camps, and this relates to additional

outer works or structures seemingly designed to provide extra defence. As discussed earlier, defensive pits are unknown, but possible outer defences are recorded at a number of camps. At **Islafoot Drumlanrig**, the camp occupies a bend in the River Nith opposite Drumlanrig fort, some 800m north of the likely crossing point of the Nith at Castlebank Ford, later guarded by the medieval stronghold of Tibbers Castle. The Roman road to Crawford is visible on air photographs as a series of quarry pits running from the ford to the north-east. The camp appears to have been accompanied by a flanking outwork, protecting the sides of the camp not afforded additional protection by the river (illus 35 & 114). The provision of this outwork, if Roman in origin, is curious, as it appears to demonstrate that the camp required an additional level of protection. It is possible that it demarcated an area for camp followers, although it runs close to the east side of the camp and there is therefore no space for extra provisions or camping on this side. This outer work is largely unparalleled at other camp sites, except perhaps for the outer polygonal enclosure at **Woodhead** (illus 212).



Illustration 35

Aerial view of Islafoot Drumlanrig and its outwork, taken from the NNE in 1997. © Crown copyright: RCAHMS. SC1164178. Licensor www.rcahms.gov.uk.

This additional enclosure has been proposed as a storage compound for timber (possibly for the construction of the fort at Elginhaugh, some 7km to the north-east, Maxwell 1983). This explanation is also possible for **Islafoot Drumlanrig**, because it is located across the river from the fort and only 800m from the fording point. But there is plenty of suitable camping ground near the fort, with one or two camps located on the low-lying ground beneath the fort towards the ford, and plenty of level ground north of the fort under Drumlanrig Castle and policies. However, it is possible that the **Islafoot** camp was the location and logging point for the timber sourced for the construction of the fort. The additional space given by the outwork here is over 7ha, assuming that the course of the river Nith has not changed considerably since antiquity. That at **Woodhead** is larger, enclosing an additional almost 10ha outside the camp.

Outer defensive works are known at a number of forts (Wilson 1984). The outer work at **Malling** connects the two camps and may have operated as an additional defence for the fort. Both camps and fort are believed to be Flavian in date, and the earthwork may have been employed to connect the defensive perimeters of the camps while both

or all three sites were in occupation (illus 36 & 173). The Lake of Menteith provided additional defence to the east.

At **Inchtuthil**, the two linear earthworks on the plateau are usually interpreted as relating to the fortress (illus 145 & 146). The Western Vallum cuts across the reduced camp (III) and is, therefore, unlikely to be contemporary with either camp II or III and would block access to the fortress from camp I. However, if the Outer Masking Earthwork were contemporary with camp III, it would provide additional protection from the west. This outer work runs from the corner of camp III, and there are, therefore, similarities between this and **Malling**, where the earthwork runs from the corner of camp I to camp II.

Elsewhere, the polygonal enclosure at **Carpow** (I) may be an outwork to the fortress, but it is equally possible that it is distinct from the fortress and relates to an earlier occupation of the ground by the River Tay (illus 97). At **Raedykes**, a linear earthwork is visible in a small wood some 220m south of the camp, which has been associated with the camp as an outwork (RCAHMS 1984: 32). However, there is no evidence to support this observation, and the earthwork may be much later in date. A similar

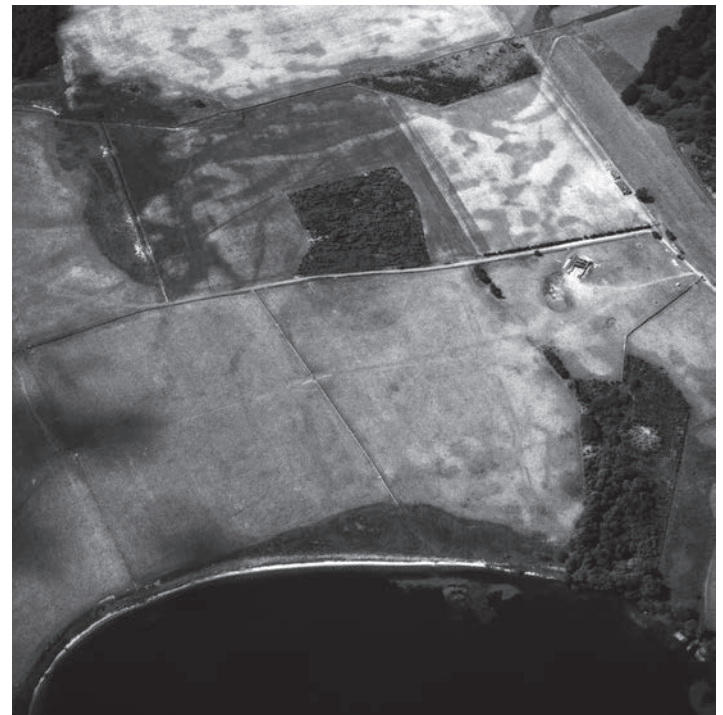


Illustration 36

Aerial view of the Roman fort at Malling (foreground, just above the Lake of Menteith), showing the outer work connecting the two camps (to its right and left), taken from the ENE in 1983 (also see illustration 173). © Crown copyright: RCAHMS. SC1164522. Licensor www.rcahms.gov.uk.

later date is proposed for the additional earthwork on the south-west side of the camp at **Raeburnfoot**, which is far more substantial than the camp earthworks and may relate to a medieval or later enclosure or something to do with flood control of the River White Esk.

Therefore, while Roman camp defences usually do exhibit certain regular defensive features, such as the classic ‘playing-card’ – rectilinear or square shape and rounded corners – these were by no means rigorously adhered to at all times. Where upstanding perimeters of camps survive, these exhibit more irregularity than is usually expected of Roman sites. This evidence should change our expectations of Roman temporary camps in terms of their defensive elements. Variations in the dimensions of ditches and ramparts around sites are common, and not all can be attributed to differential survival rates. The majority of camps in Scotland are only visible as cropmarks, and irregularity in form can be identified in the cropmark record, such as the changes of alignment observed in the ditches at **Kirkbuddo** and **Normandykes**. Additional defensive features such as outworks have been observed at a small number of camps and the contemporaneity of these features with the occupation of the camp may be suggested on occasion, but is currently impossible to prove. It seems possible that the outworks were provided in areas where the traditional defence of single rampart and ditch was not deemed sufficient, and some sectors of camp perimeter were strengthened presumably to counter a perceived threat on that side, or to compensate for a lack of additional natural defences.

7b Gates

The entrances to a camp represented defensive weak points on the circuit, and it should be expected that these would be kept to a minimum without impeding the ability of the army encamped inside to go about its business. If a camp were to be occupied for several days or weeks, it might be expected that access in and out of the camp would be an important element to consider during its construction. The camp perimeter could represent an obstacle to those inside if, for example, a small unit found itself cornered inside a large camp (Austin & Rankov 1995: 180). In addition, not all the business of a camp was conducted within the interior and, therefore, access to the exterior was important. Vegetius and Hyginus commented that camps should be built near sufficient supplies of water (*Epitoma* I.22; *de munitionibus castrorum* 57), and usually this water source is outside the camp perimeter.

A typical camp, according to Hyginus, was provided with six entrances, and a number of camps in Scotland are known with this number of gates (particularly the larger examples). However, camps are frequently known with fewer gates, possibly as few as one (**Gallaberry** – illus 14 & 132). Three camps in northern England exhibit multiple gateways: at Rey Cross, nine of a possible eleven are known; at Crackenthorpe some ten have been identified; and at Plumpton Head at least seven are known from three sides (Welfare & Swan 1995: 57–60, 34–6, 43–4). In Scotland, only **Burnswark South** has three gates on a single side, but this is not mirrored on the opposing side (illus 8 & 92). These three entrances (the ‘Three Brethren’) face the hill and are protected by large obstacles of rampart and ditch set forward from the entrance gap. It has been suggested that the enhanced protection afforded by these three mounds was in order to act as defence against heavy objects being rolled down by the besieged towards the Romans (Campbell 2003: 28–9), another interpretation was that they were *ballistaria*, or artillery emplacements (Collingwood 1927: 52). Presumably the purpose of having three entrances facing the hill was to provide advantage in attack.

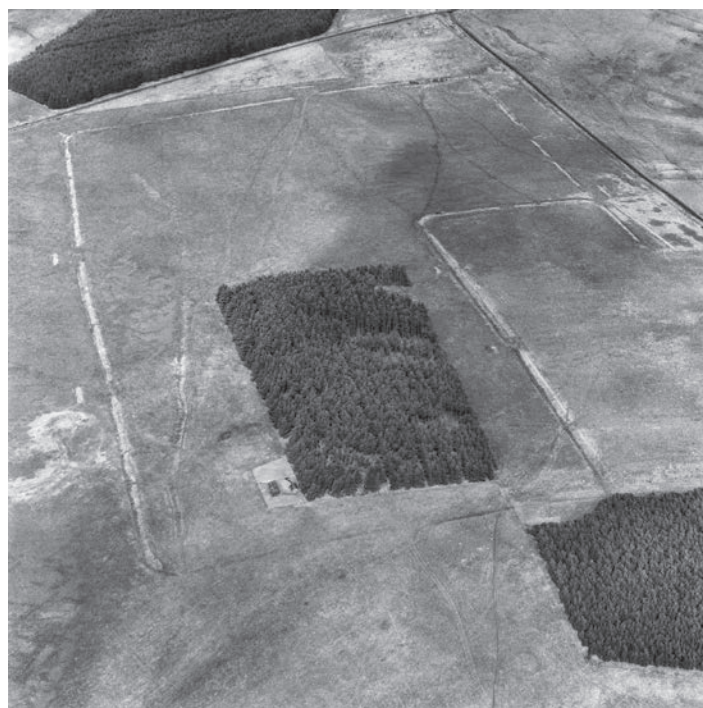


Illustration 37

Aerial view of the camps I and II at Pennymuir, showing the *tituli* protecting the entrance gaps. Taken from the SSW in 1995. © Crown copyright: RCAHMS. SC505325. Licensor www.rcahms.gov.uk.

These three entrance mounds appear to be enhanced *tituli*, and the *titulus* – a traverse, usually a rampart and ditch, set forward from the entrance gap – was the most common gate form in use in Scotland and in Britain as a whole (illus 37 & 40c). However, it has not been possible to record any entrance at all at over 20% of camps in Scotland, owing to incomplete cropmarks, and a further 20% are known only by simple entrance gaps (although in these instances the gap can be clearly identified and perhaps any ditched gate defence, such as a ditched *titulus*, might have been visible depending on the conditions of survival and recording). Thus, other gate types may also have been prevalent, but perhaps were delineated only in rampart form and cannot now be recorded easily following centuries of ploughing.

Camps with *tituli* are known from elsewhere in the Roman Empire. At the unique probable battlefield site of El Pedrosillo in southern Spain, over a hundred *tituli* are recorded forming freestanding obstacles (Rodríguez Martín & Gorges 2006; Morillo *et al* in prep). Probably the earliest recorded examples are in Spain, at the siege works near Numantia (in the 2nd and 1st century BC – Schulten 1914–31). They are also recorded across the Empire from the Netherlands to Romania, and probably farther afield (see Bogaers & Rüger 1974: 33–5; Căţănicu 1981: 55; Stefan 1997). Several of the practice camps in Wales exhibit *tituli*, particularly those around the forts of Tomen-y-Mur and Castell Collen (Davies & Jones 2006: 178–85, 187–94). No *tituli* are recorded on Trajan’s Column, but it has been suggested that this was due to the difficulty in illustrating them clearly (Lepper & Frere 1988: 263). With regard to dating, camps with *tituli* are assumed to be in use from the 2nd century BC to the later part of the Roman Empire. In Scotland the camps that are proposed as relating to the campaigns of Septimius Severus in the 3rd century AD are accompanied by *tituli*, although none has yet produced firm dating evidence to confirm this assumption (Chapter 10). Certainly, the stratigraphically latest camp recorded at **Ardoch** (camp I) had entrances protected by such means, as did the exceptionally large camp at **St Leonards**, presumed to be of Severan date. Few *tituli* have been excavated, but that at **Lochlands IV** produced a *denarius* of Hadrian in the upper fill of its ditch (Thomson 1968: 262), and sherds from a BB2 bowl, probably dating to the Antonine period, were recovered from the fill of the *titulus* ditch at **Dunning** (Dunwell & Keppie 1995).

Some 45% of camps in Scotland exhibit *tituli*, but over 75% of these are known exclusively from cropmarks, and a further 17% from both cropmarks and earthworks. But

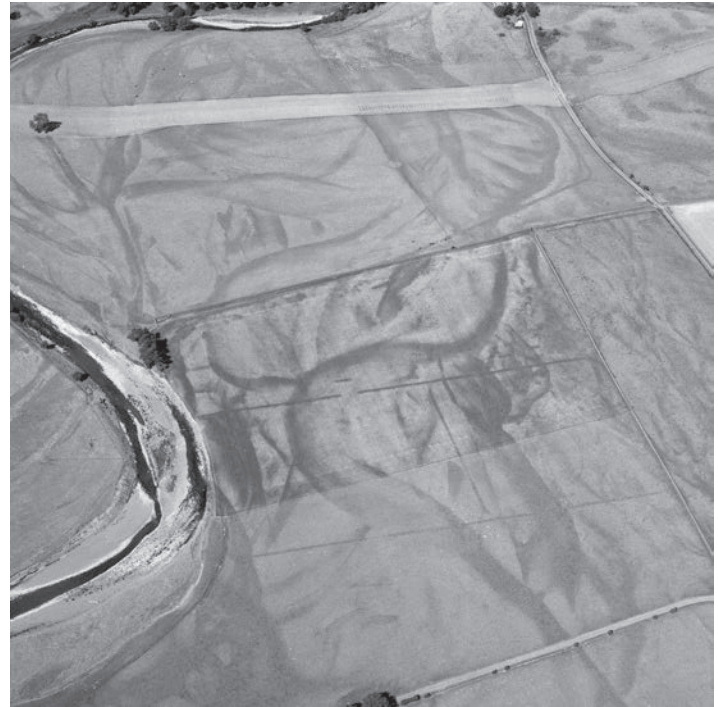


Illustration 38

Aerial view of Beattock Barnhill II–IV showing the two *tituli* on the west side of the camps, including the blocked gate (the northern of the two), taken from the east in 1977 (also see illustration 85). Camp I is visible towards the top of the image. © Crown copyright: RCAHMS. SC1164185. Licensors www.rcahms.gov.uk.

in many other camps, the position of the entrance gap is not always clear in the cropmark record. At **Eskbank I**, excavations at the gate revealed an additional small ditch covering most of the gap, interpreted by the excavators as a feature to hold temporary hurdling. This feature has also been noticed at other camp excavations, and could blur some of the cropmark evidence (Maxfield 1975: 144–7), as is possibly the case at Walton II in Wales (Davies & Jones 2006: 139). Furthermore, if a camp had been utilised on more than one occasion, then the location of the entrance may have been blocked or moved, and this is almost impossible to detect from the cropmark evidence alone. At the multiple phase site of **Beattock Barnhill II–IV** a *titulus* is clearly visible outside a continuous ditch, indicating either that the camp ditch was deliberately filled in for a second phase or that the gate was subsequently closed (illus 38 & 85). Welfare and Swan report that some of the entrance gaps on the multiple-gated site of Rey Cross show signs of blocking, based on field survey of the upstanding remains (1995: 23, 57–60).

Surviving *tituli* are rare and have only been recorded at a handful of sites, including **Battledykes**, **Oathlaw**,



Illustration 39

Aerial view of the north-west gate with four *tituli* and the blocked south-west gate at Ward Law, taken from the north-east in 1984. © Crown copyright: RCAHMS. SC360860. Licensors www.rcahms.gov.uk.

where a single *titulus* is the only earthwork surviving in a camp now largely visible as a cropmark (illus 28 & 29). The camp at **Ward Law** appears to have four *tituli* outside one entrance, a complex arrangement, and it seems likely that there may have been a training element in the construction of so many obstacles at a single gate (illus 39). In contrast, no *titulus* was found at another entrance on the same camp despite the placing of ‘a long trench outside the gateway’ (St Joseph 1952b: 118–19). Thus it appears that the utilisation of the same entrance protection throughout a camp may not have been a prerequisite. Different entrance types on the same camp are recorded at **Burnswark North** (although this camp is unusual in other ways – illus 44 & 92), and at Bellshiel in Northumberland, both known as earthworks.

Hyginus refers to the use of a *titulus* or *titulum* (see Henderson & Keppie 1987) at gateways (*de munitionibus castrorum* 49–50). However, he refers to this gate defence in tandem with an internal *clavicula* (*de munitionibus castrorum* 55), a semi-circular rampart constructed to expose the unshielded side of the camp entrant to the camp defenders (illus 40b). The use of both *claviculae* and *tituli* at the same

entrance has only been recorded on a handful of camps, and none as yet in Scotland.

Unsurprisingly, all the camps where this use of two differing defensive gate features has been recorded are upstanding earthworks, owing to the difficulty in recording *claviculae* when the camp has been ploughed out. They lie in Northumberland and upland parts of Wales, the best examples being Chapel Rig and Glenwhelt Leazes in Northumberland (Welfare & Swan 1995: figs 68 & 83). All these camps are fairly small (the largest, Glenwhelt Leazes, is only 1.2ha), but larger camps exhibiting *claviculae* and *tituli* at the same entrance have been recorded at Comărnicele (camp I, both phases) and Vârful lui Petru in Romania (Stefan 1997).

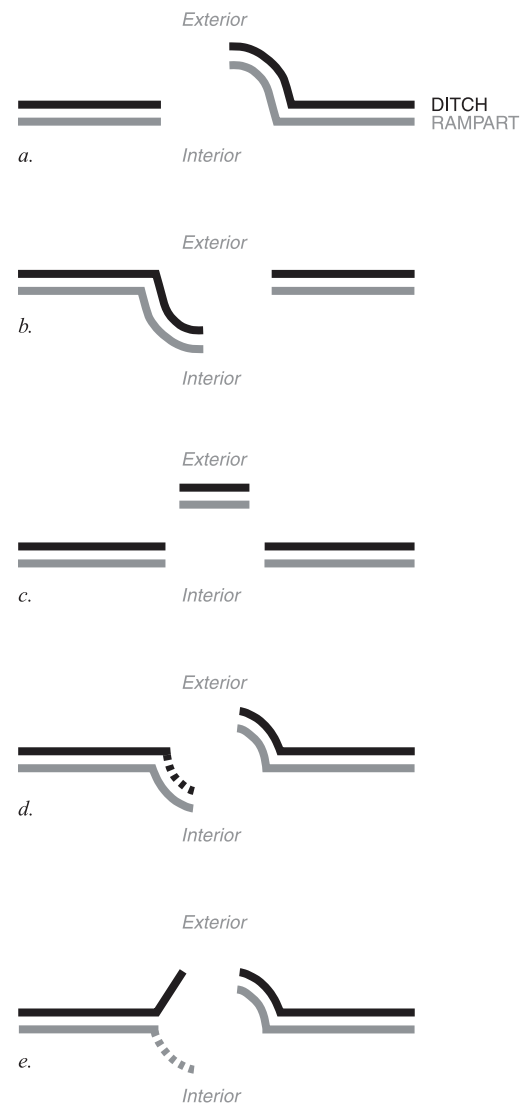


Illustration 40

Illustration of different gate types: (a) external *clavicula*; (b) internal *clavicula*; (c) *titulus*; (d) cuspate entrance; (e) Stracathro-type gate.



Illustration 41

Aerial view of the eastern external *clavicula* gate at Milrighall, taken from the north-west in 1984. © Crown copyright: RCAHMS. SC1164052. Licensors www.rcahms.gov.uk.

North of Hadrian's Wall (excluding the camp at Greenlee Lough, grouped with the Wall camps) only 11 camps are known to have been protected by *claviculae*, (excepting the Stracathro-type, see below), but given the lack of upstanding remains of ramparts and the ease with which such features can be ploughed away, it is likely that the figure would have been much higher, particularly if the *clavicula* manifested itself only in rampart form and was not accompanied by a curving ditched element.

The presence of both internal and external *claviculae* ('cusate' gates – illus 40d) is uncommon, with the only current recorded examples in Britain being **Oakwood** (illus 187) and, in England, Troutbeck 2 and 3 (Welfare & Swan 1995: 44–50), although one fort and annexe at Cawthorn is also provided with such an entrance (Welfare & Swan 1995: 140–2). However, the camp at **Milrighall** survives only as a cropmark with external ditched *claviculae* recorded, and, although accompanying internal *claviculae* are not visible, they may have been present in rampart form (illus 41 & 179). External *claviculae* (illus 40a) are generally rare in Britain, with only a few examples currently known: the cusate-gated sites already mentioned, **Milrighall**, possibly **Lochlands II**, Hoole in Cheshire (Philpott 1998), and the unusual camp of Cawthorn C in North Yorkshire

(Welfare & Swan 1995: 137–42). However, the number of camps in Scotland with only entrance gaps in the ditch or where entrances have not yet been recorded, indicates that many upstanding *claviculae* may have been destroyed by the plough. External *claviculae* have also been recorded as far afield as Tell Abara in Jordan (Kennedy & Riley 1990: 107–8), Nahal Hever in Israel (Aharoni 1961; Lenoir 1977: 705) and Qasr Ibrim in Egypt (Maxfield 2009: 70–3), confirming that this was not an unusual practice confined to Britain.

While seemingly rare in Scotland, owing to the lack of upstanding remains, *claviculae* are identified elsewhere in *Britannia*, and some 68 of various forms are now known in camps of a range of shapes and sizes across the province (Jones 2009c: 13–15). The majority of surviving upstanding camps with internal *claviculae* lie in Northumberland and in parts of upland Wales, the two areas in Britain where Roman camps are best preserved. They are also recorded on a number of practice camps in Wales, most notably on the common west of the forts at Gelligaer, Glamorgan (Davies & Jones 2006: 169–73).

Use of *claviculae* is generally attributed to the 1st century AD and the earlier part of the 2nd century AD in Britain (Jones 2009c). Camps with *claviculae* elsewhere



Illustration 42

Aerial view of the south-east gate at the eponymous type-site of Stracathro, taken from the west in 1979. © Crown copyright: RCAHMS. SC1164182. Licensors www.rcahms.gov.uk.

in the Empire have a broader range of dates. Certainly a number are known which are likely to be of Republican date (eg Alésia in France: Reddé 1995; Qasr Ibrim in Egypt: Maxfield 2009: 70–3; Peña Redonda in Spain: Morillo 2003). Amongst the most securely dated camps with *claviculae* anywhere in the Empire are those at Masada in Israel (illus 7), associated with the siege in AD 72–3 (Richmond 1962; Yadin 1966: 218). The latest dates currently proposed for camps with *claviculae* are the two at Nahal Hever in Israel, dated to the Bar-Kokhba War of c AD 132–5, although the possibility that these could date

gateway and commenting on its potential similarity to the camps at Cawthorn (1793: 65, Pl. XI). With the exception of **Dalginross** and the upstanding camp at **Raeburnfoot**, first recorded in 2004 (Jones & McKeague 2009), all the other camps known with this variant gate form are recorded only as cropmarks.

Roy illustrated the earthworks of internal *claviculae* at three of the four entrances at **Dalginross**. At **Raeburnfoot**, the only upstanding camp with these gates, the earthworks are severely degraded, but at the north-west and north-east gates no internal *claviculae* can be detected despite detailed field survey and contour modelling (illus 43). However, on the south-east side, opposite the north-west gate, an earthwork feature has survived which is strongly suggestive of an internal *clavicula*. The camp rampart does not appear to break for an entrance at this point, but the camp in this area has been disturbed by later field banks and enclosures, and the ground outside the likely entrance has been scarped, removing any signs of an external *clavicula* and oblique traverse (illus 192). It therefore seems likely that some of the gates also possessed internal *claviculae*, but that those elsewhere at **Raeburnfoot** have eroded and are no longer detectable on the ground. Any traces of internal *claviculae* banks at **Dalginross** and at all other Stracathro-type camps have been obliterated through ploughing. The possibility that other Stracathro-type camps may have also had internal *claviculae* should be noted. Their absence at the two visible external Stracathro-

type gates at **Raeburnfoot** may be genuine, although the survival of the earthwork of this camp is so poor that they could have eroded (Jones & McKeague 2009).

St Joseph created one of his ‘series’ of camps around those with Stracathro-type gates (1958: 87; 1969: 113–14) but recognised that their wide range in size and other variations (including location) militated against their assignation to a particular campaign (1973: 229). Nevertheless, some scholars have attempted to assign these camps to the campaigns of Agricola (Ogilvie & Richmond

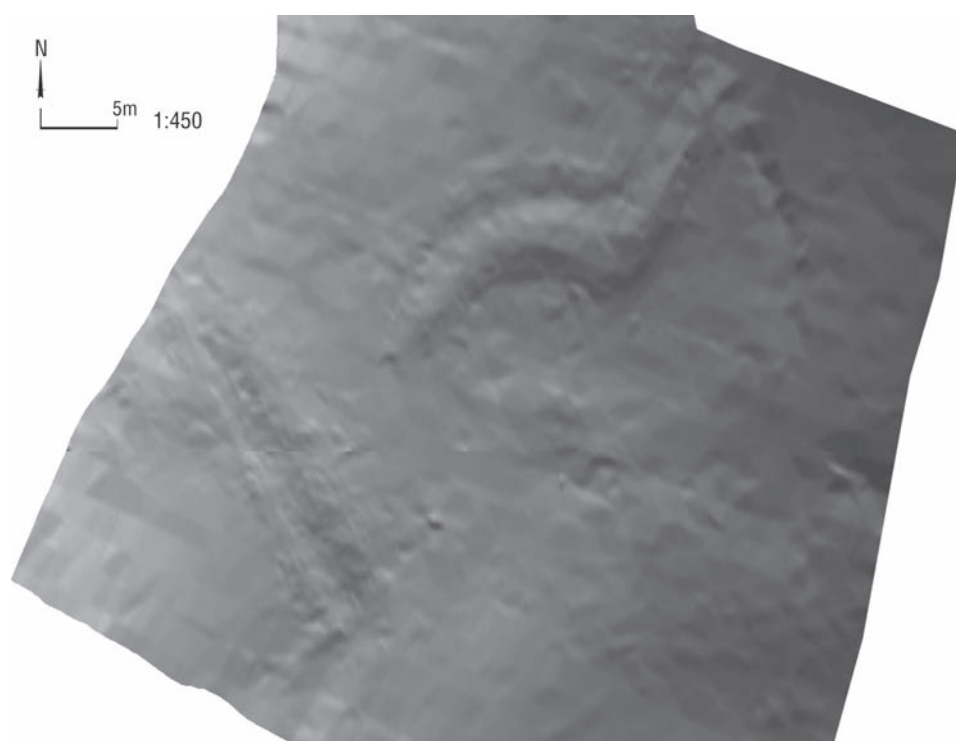


Illustration 43

Three-dimensional contour model of the north-west gate at Raeburnfoot, surveyed using a differential Global Positioning System and with a $\times 3$ exaggeration. © Crown copyright: RCAHMS. Licensors www.rcahms.gov.uk.

to the Jewish War of the AD 70s has been noted (Aharoni 1961: 161–2; Lenoir 1977: 715).

One of the more unusual variants of the *clavicula* gate is found only in Scotland and is known as the ‘Stracathro-type’, named after the site where the phenomenon was first observed by St Joseph (1955: 87). It consists of an external *clavicula* ditch with an oblique traverse guarding the entrance gap (illus 40e & 42), possibly accompanied by an internal curving rampart. Roy planned the camp at **Dalginross** in 1755 (illus 13), recording the unusual

1967: 62–3), but the evidence cannot support such a specific attribution. Much has been credited to Agricola as a ‘leading innovator’ in the design of defences (Jones 1975: 118), but it has been commented elsewhere that had this gate type been his invention then surely more should be recorded in Britain (Breeze 1981: 18) and, indeed, no doubt Tacitus would have obliged us with further embellishment. At present, no firm dating evidence has been recovered from any of these sites. However, on the basis of location, with some sited next to Flavian forts, others representing the earliest sites in a gathering ground (eg **Beattock Bankend**: Jones 2009a), and two of the five most northerly camps exhibiting this gate design, a Flavian date does seem the most likely attribution (Jones 2009c).

It has been suggested that this gate type could be characteristic of a single legion (Wilson 1974: 344; Maxwell 1998b: 19–20). Their seemingly irregular distribution could be due to a handful of officers (presumably the senior tribune or *praefectus castrorum* was responsible) posted in northern Britain with a specific legion for a limited period of time (Jones 2009a: 870–2).

Although only a few Stracathro-type camps are known, the note of caution regarding the attribution of gate types to camps where no gate is known remains valid. The camp at **Eshiels I** has been known since 1962, but its Stracathro-type gate was only identified following a reappraisal of existing air photographs in 1995 (Keppie 1996a: 405) (illus 124). It is possible that some of the camps already recorded possessed Stracathro-type gates but have not yet been identified as such. If the gate form can be credited to a small number of officers from a particular legion, then perhaps the variability in size and shape also suggests that there was more flexibility in garrison sizes than has hitherto been propounded. Garrisons may have been so well established that there was no flexibility for movement, division and regathering together in a single campaign, but this is perhaps unlikely and there may have been much more flexibility. Tacitus informs us that Agricola split his force into three battle groups in his sixth season (*Agricola* 25), but this need not have been the only occasion this happened, the reason for it being specifically mentioned relating to the subsequent attack on the ninth legion. It is likely that legionary detachments and auxiliary regiments may have been able to brigade together in different groupings in different places depending on the demands of the terrain and of that particular conquest or manoeuvre. Perhaps the so-called Stracathro-type series is one of the indicators of a versatile army. Attempts (most notably by St Joseph) to group camps of similar size and proportions together into rigid specific campaigns (and then tie these

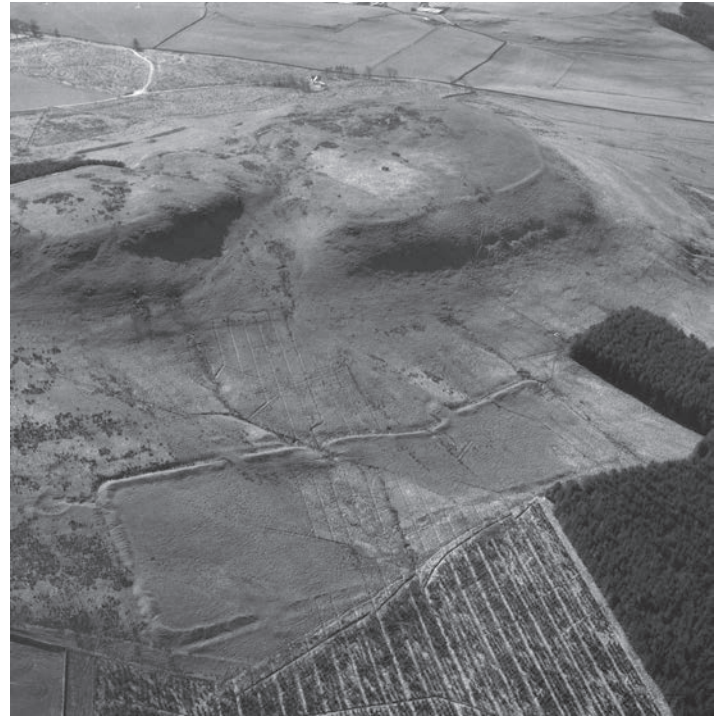


Illustration 44

Aerial view of Burnswark Hill and the North camp, taken from the NNW in 1990. © Crown copyright: RCAHMS. SC1164089. Licensors www.rcahms.gov.uk.

to the literary evidence) perhaps belie the versatility of the army on campaign, although these series do have their validity (see Chapter 9). It is clear from sources such as Tacitus and Josephus that the army was regularly divided for campaigns and manoeuvres, perhaps hinted at by the Stracathro-type camps, if they do indeed represent the work of one or more camp prefects.

7c Proportions and morphology

Roman camps are usually square or rectangular in shape, with some occasionally deviating from the norm, usually owing to topographical factors. Vegetius commented that once the campsite had been selected, the camp could be built ‘square, circular or triangular’ (*Epitoma* III.8). Camps of the latter two forms are unknown in Scotland (and in Britain), but such an unusual site, if it were visible as a cropmark, might not be identified as Roman in date and might therefore be given a different designation. However, the large camp at **Channelkirk**, of which parts of three sides are known, could almost be triangular, depending on where the west side of the camp is sited (illus 103). The shape of the more unusual camps in Britain (Twyn-y-briddallt in Wales; Cawthorn C, Milestone House and

Plumpton Head in England and, in Scotland, **Burnswark North**, **Raedykes** and possibly **Channelkirk** and **Carpow II**) can sometimes be attributed to topography or the avoidance of an existing structure such as a permanent fort. Certainly there is a broad range of shapes in Scotland, particularly amongst the larger camps where availability of suitable ground would have taken precedence over conforming to a particular form.

The Roman military manuals give instructions for general camp layout, and Vegetius and Hyginus both advocated that the length be one third longer than the width (*Epitoma* III: 9; *de munitionibus castrorum* 21). The proportions are known for 160 camps in Scotland and can be estimated for a further fifteen camps (representing some 60% of the known, probable and possible camps in Scotland). Of these, some 19% have a ratio of 3:2, that is a coefficient of between 1.44 and 1.6 (average 1.5). (The coefficient is the number produced by dividing length by width; see table 3.) If this is expanded to include those camps with ratios of 5:3 and 7:5, the number increases to 27%. This is only slightly higher than those camps which are classed as square (that is, they have a ratio of 1:1 and a coefficient of 1.0 to 1.14), some 22% of the total.

Therefore it can be observed that, unsurprisingly, the majority of camps in Scotland are square to rectangular in shape, with only a few exhibiting more extended forms. These elongated camps (those with a coefficient above 2.0) include **Burnswark North**, which almost has the appearance of two adjoined camps and lies on gentler sloping ground on the NNW side of Burnswark Hill (illus 44). **Carlops Spittal I** lies along a ridge above the Roman road on the east side of the Pentlands (illus 96), **Pennymuir II** is tucked into the corner of **Pennymuir I** (illus 37 & 191), and **Kirkbuddo** has no obvious topographic reason for its oblong shape, although it deviates around a boggy area on its west side (illus 32 & 160). Finally, **East Carmuir** at **Lochlands** (illus 167) may also have an elongated shape, but its east side is unconfirmed and its overall dimensions are only an estimation.

Maxwell has argued that camps which exhibit a square rather than rectangular form are more likely to date from the 1st century AD (1981: 28–9). This reasoning used as an example the rhomboid camps at **Dunning** and **Carey**, frequently placed together on the basis of geography and size (illus 118 & 95). However, further work has questioned their Flavian attribution, and the grouping of two camps is too small to start to establish much by way of a meaningful discussion in terms of a campaign series. **Dunning** displays evidence for reuse, with probable Antonine sherds from a BB2 bowl recovered from the fill of the *titulus* ditch

(Dunwell & Keppie 1995), whereas **Carey** is apparently a single-period Flavian site on the basis of small-scale trenching and a single samian sherd (St Joseph 1973: 220), which can no longer be located (Dunwell & Keppie 1995: 60n). Therefore, while both camps could have been Flavian in their original construction, their attribution to the 1st century is not confirmed, nor is the dating of many other square camps. For example, **Durisddeer I** was not listed by Maxwell as a possible Flavian camp (1981: 37) but is almost square in shape (illus 119). It lies on the Roman road running from Nithsdale (close to Drumlanrig) to the Clyde at Crawford, and is close to the Antonine fortlet of the same name. The exact course of the Roman road at this point is not known, but it is presumed to lie under the modern road. If this were the case, then the camp could predate the road and be 1st century in date, adding further confirmation to the theory that square camps were Flavian. **Steeds Stalls**, **Gourdie** (illus 50 & 198), is also almost square and again is assumed to be 1st-century in date, accompanying the nearby fortress at Inchtuthil. However, the almost square camp at **Beattock Barnhill I** has been argued as being both Flavian and Antonine, the former owing to its shape, the latter owing to it overlying



Illustration 45

Aerial view of the Antonine Wall camp of Tamfourhill from the north-east, taken in 1984. © Crown copyright: RCAHMS. SC354115. Licensor www.rcahms.gov.uk.

a fortlet of unknown date (Maxwell 1981: 40–1; Hanson & Maxwell 1986: 67; Maxwell & Wilson 1987: 21, 25) (illus 85). Recent work on the alluvial history of the gravel deposits and palaeochannels of the nearby Evan Water has suggested that it may be Antonine or later in date (Tipping 1997: 25; Jones 2009a: 871–2).

One group of camps for which the dating is reasonably secure are those argued to be construction camps for the Antonine Wall (Hanson & Maxwell 1986: 117–21; Jones 2005b). However, again a number of these exhibit a square form (for example, **Easter Cadder** – illus 121) although they range to more rectangular shapes (eg **Tamfourhill** (illus 45 & 205). While they have a fairly narrow size range, a square shape need not necessarily imply a dating to the 1st century AD – though, admittedly, this does not disprove the argument that there is an apparent tendency for some 1st-century camps to be square. Furthermore, the camps in Wales, the vast majority of which are likely to be 1st century in date, exhibit a range of forms from almost square (Carn Caca) to elongated in a ratio of 3:1, or coefficient 3.0 (Blaen-cwm Bach) (Davies & Jones 2006).

While Maxwell noted that a tendency to squareness was not the sole defining characteristic of Flavian camps, many of the camps for which a Severan date has been argued do exhibit a more rectangular defence perimeter, almost a tertiate plan (that is, a 3:2 or more elongated ratio – coefficient 1.5). However, evidence from the rectangular

camp at **Kintore** (coefficient 1.3), while exhibiting a range of dates, broadly supports the idea of a Flavian foundation (Alexander 2000; Cook & Dunbar 2008). Whether the camp was reoccupied in a later period does not detract from its probable original construction in the 1st century AD, and, indeed, the neighbouring camp at **Logie Durno**, one of the proposed locations for the battle of Mons Graupius (St Joseph 1978a) exhibits a coefficient of 1.47, almost Vegetius and Hyginus’ ratio of 3:2. Furthermore, so few camps have produced cogent dating evidence that it is not possible to argue for a Flavian date for the square camps on much more than coincidence and supposition. The so-called Stracathro-type camps exhibit a wide range of proportions, although do seem to be constructed in the 1st century AD (Jones 2009c).

A number of camps exhibit more irregular forms, and this is a tendency of the larger camps (eg **St Leonards** (illus 195) and **Raedykes** (illus 193)). The large 56ha camp at **Innerpeffray East** has projecting corners on its eastern side (illus 148). Corners represent weak points on the circuit (*de munitionibus castrorum* 54), and such acute angles would have been harder to defend; there is no obvious topographic reason for these projections, although they do serve to funnel any camp visitors towards what is possibly the *porta praetoria*. A similar but less spiked arrangement is visible on the western side of **Girvan Mains East**, where the camp markedly bows inwards for the gate (illus 136);

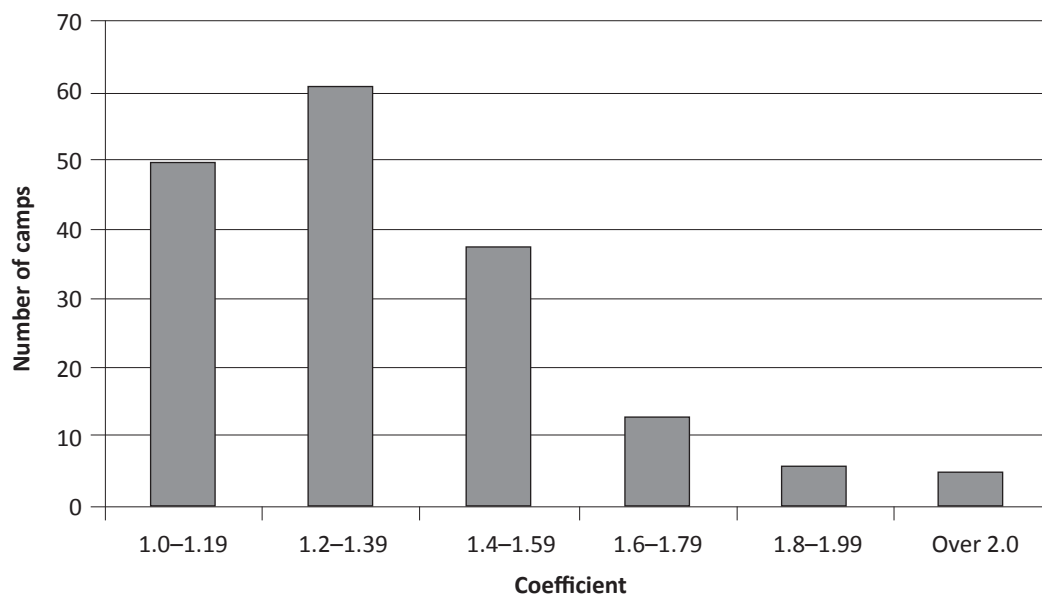


Table 3
Coefficient proportions of camps in Scotland.

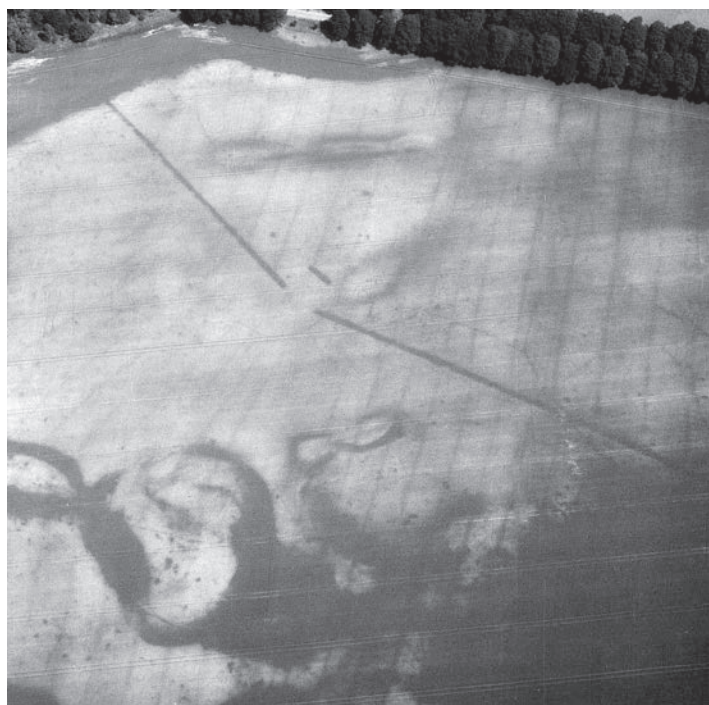


Illustration 46

Aerial view of the east side and change of alignment at the gate of Grassy Walls, taken from the south-west in 1989. © Crown copyright: RCAHMS. SC777927. Licensor www.rcahms.gov.uk.

at **Grassy Walls**, the sides bow in to meet the two known gates on the north and east sides (illus 46 & 140). The defensive perimeter of the camp changes alignment at the gates at a number of sites, again often for topographic reasons (eg **Logie Durno**, where the camp bends to follow the contour – illus 169). Changes of alignment can therefore help to predict gate location (eg **Househill Dunipace** – illus 144), although there are exceptions, one being **Normandykes**, where the south side appears to change direction subtly just east of a gate rather than at the gate (illus 185). There is no obvious topographic reason for this perimeter movement, which may also be echoed on the north side, almost as if two camps were conjoined. The change of alignment at **Bankhead Carnwath I** could be owing to the crossing of a preexisting Roman road, with the gates constructed to enable the road to pass through the camp (illus 82). St Joseph observed that the removal of a stretch of rampart and ditch of camp II at **Ardoch** was owing to the presence of street lines within the later camp I (1976: 17).

Thus the internal layout of all the slightly irregular camps must have been adjusted to suit any alignment change, but the continuation of internal symmetry can usually be observed from the location of the side gates

opposing one another. Despite the vast range of sizes known in Scotland, a glance at illus 47 and the gazetteer demonstrates the consistency of Roman camp construction, with most camps exhibiting square or rectangular shapes, opposing gateways, centrally placed *porta praetoriae*, with deviations to the norm often attributable to topographic considerations.

7d Orientation

Historical sources and Roman military manuals provide a level of information about the layout of camps (see Chapter 2). Polybius, for example, informs us that Republican camps were constructed by a simple ordered formula relating to the selection of the site, its internal layout, and the construction of the rampart and ditch (VI.27–34). The later authors Josephus (*Bellum Iudaicum* III.117) and Vegetius (*Epitoma* II.7) suggest that the internal space was allocated before construction of the perimeter defences, and Hyginus also explains the internal layout before describing the rampart and ditch. The choice and location of the camp was the task of the camp prefect (*praefectus castrorum*), a senior army officer who also had responsibility for the soldiers' tents and baggage (Vegetius *Epitoma* II.10). Although identifying the space required for the internal layout of the camp first is, of course, logical, an army marching from camp to camp would presumably have required exactly the same space and therefore could start constructing the perimeter rampart and ditch once the necessary troops arrived, before the interior layout was completed.

Camps could be provided with a number of gates (see 7b above), but most were supplied with a front gate (*porta praetoria*), rear gate (*porta decumana*) and two side gates (*porta principalis dextra* and *porta principalis sinistra*). The headquarters or general's tent (*praetorium*) faced towards the front of the camp, with one road leading out through the *porta praetoria* and the cross road in front of the *praetorium* leading out through the side gates. Owing to the forward position of the *praetorium*, these side gates were often located closer to the front of the camp than the rear. Both Hyginus and Vegetius (*de munitionibus castrorum* 56; *Epitoma* I.12) tell us that the camp should face the enemy, or the line of march, or east, and that the rear portion of the camp should be at its highest point. No doubt the achievement of all these ideals was rare, particularly in some of the larger camps in Scotland where availability of enough suitable ground would have taken preference over concerns of orientation. Indeed, it is clear from the topographic location of the majority of camps in Scotland that the primary concern for the

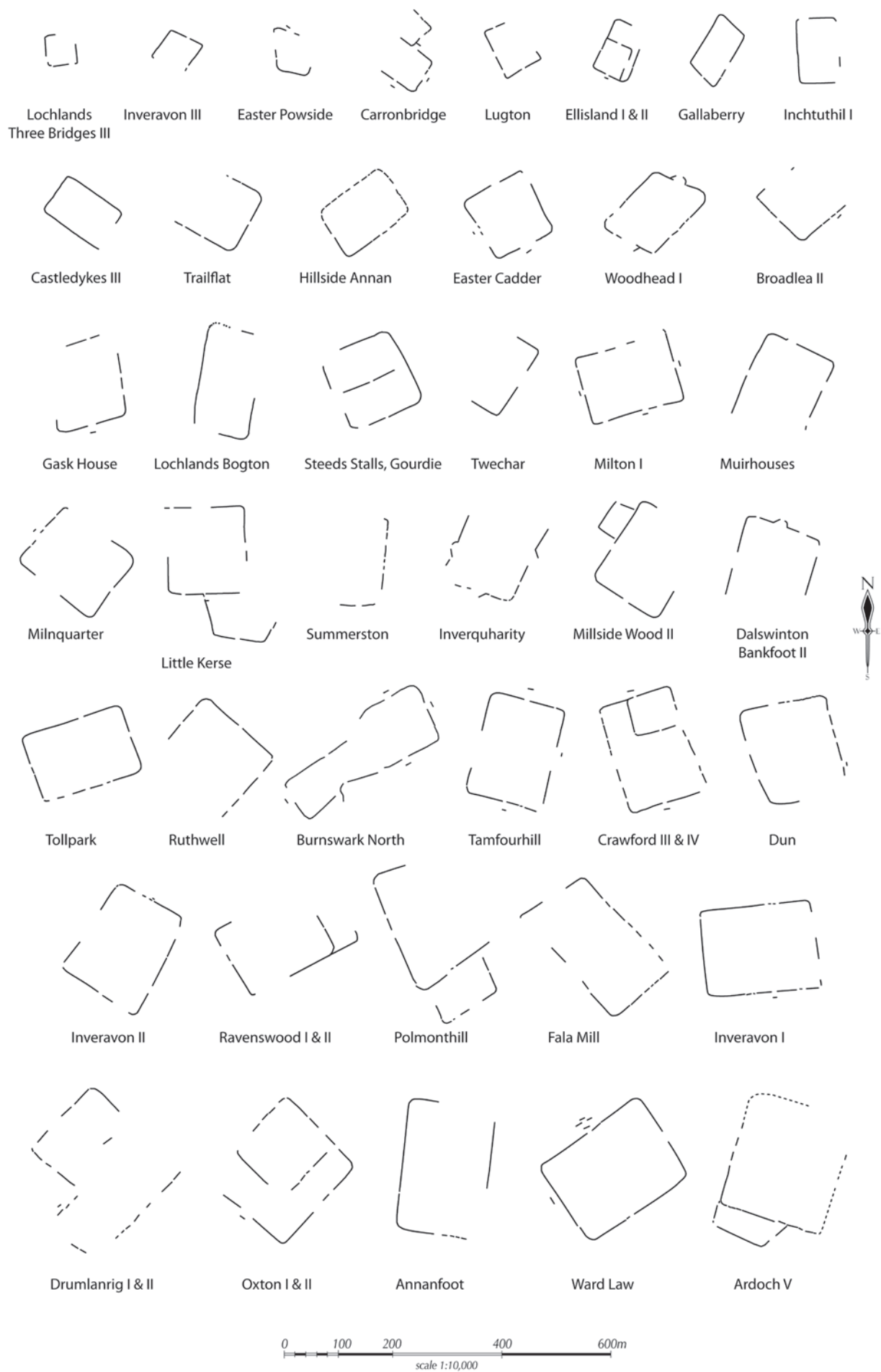
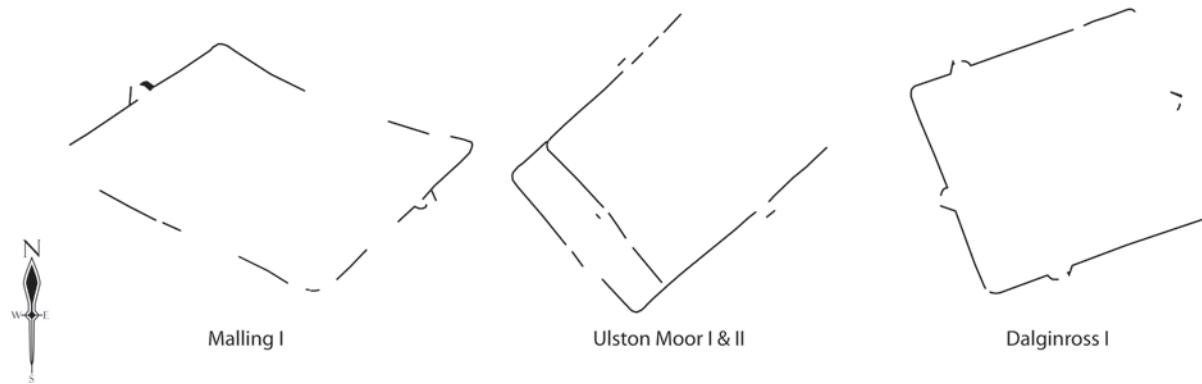
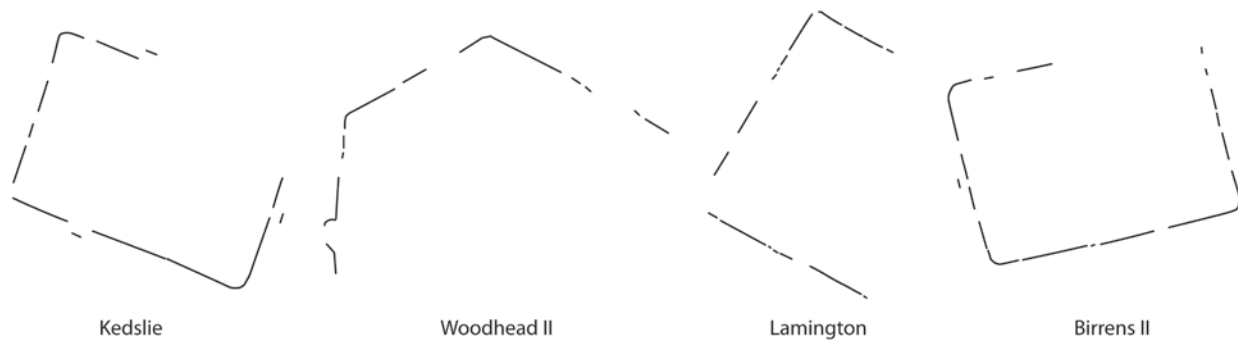
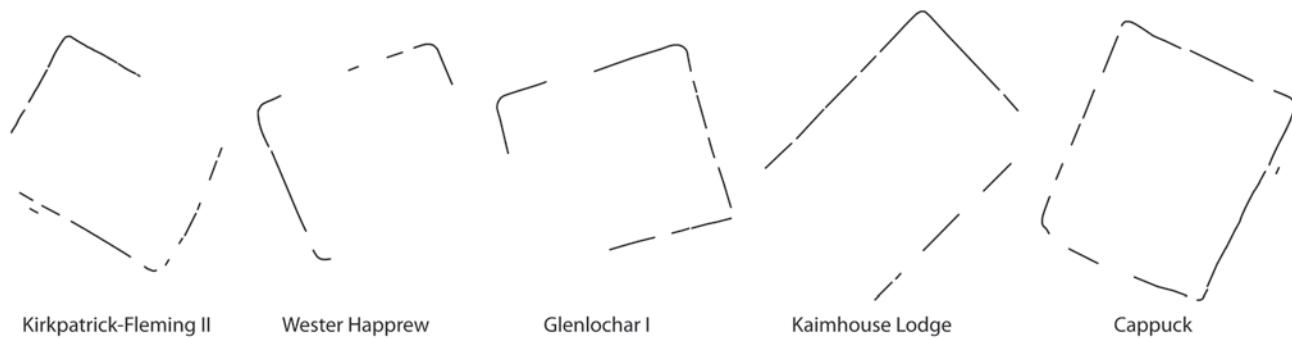
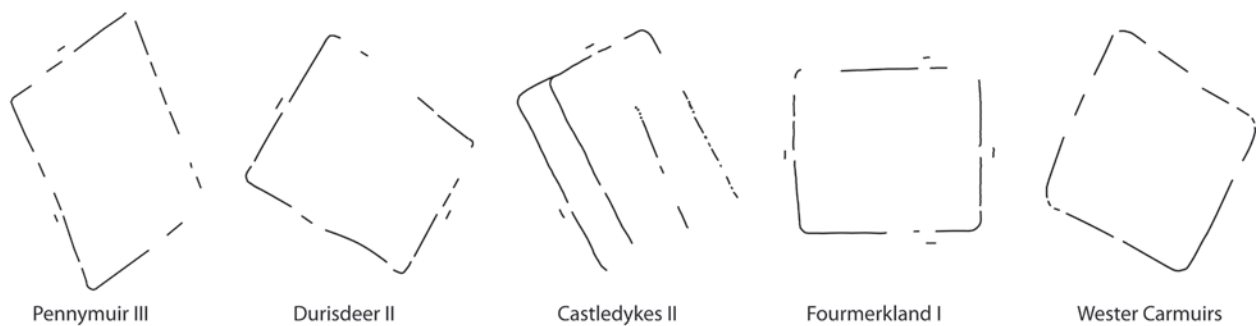
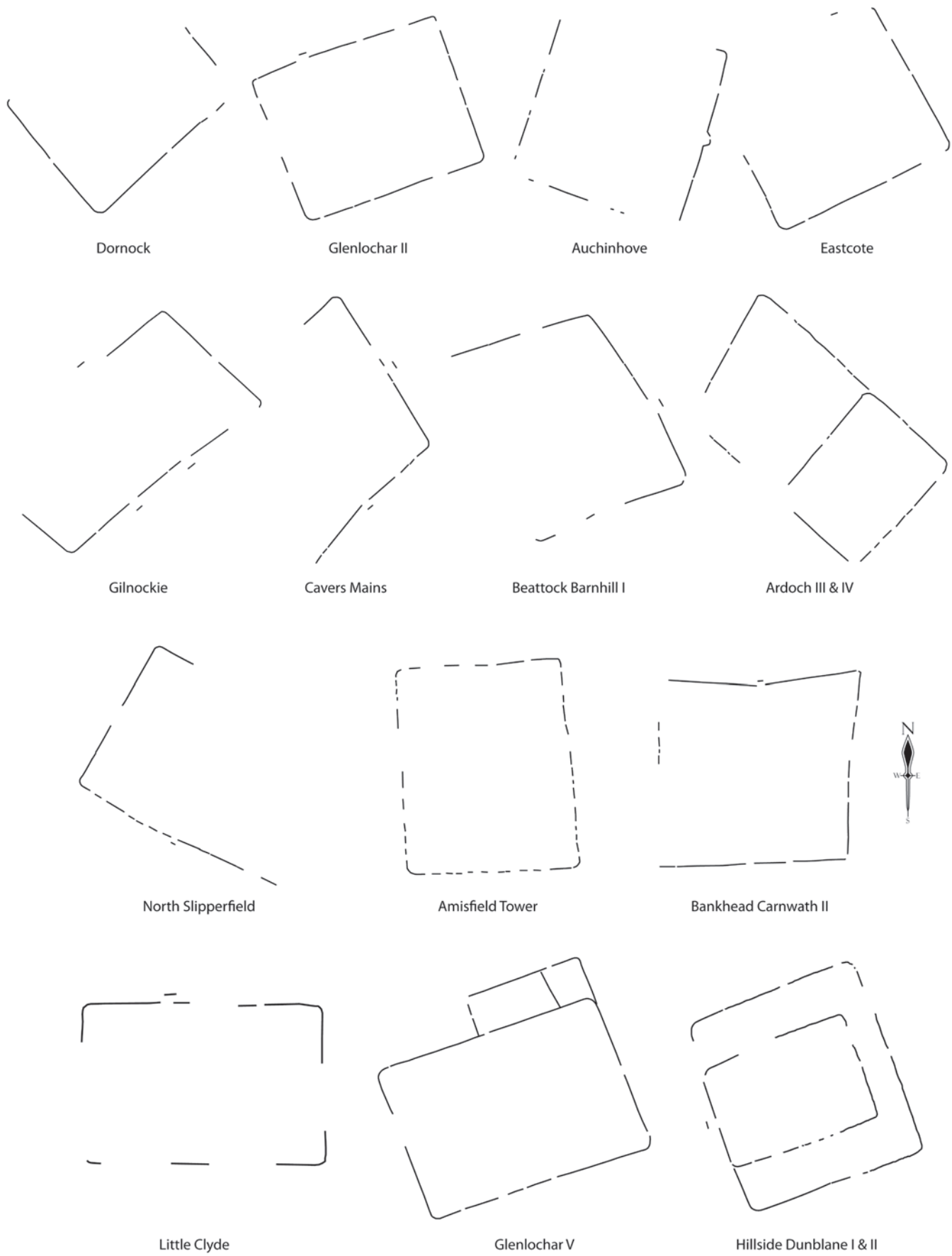


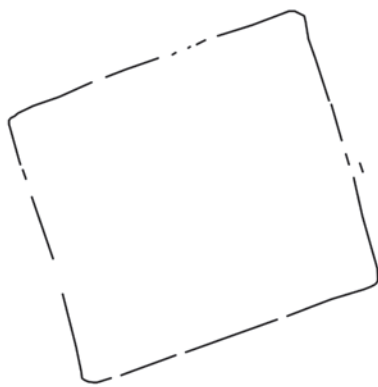
Illustration 47

Comparative plans, to a common orientation and scale of all camps for which the perimeter is known or can be inferred.

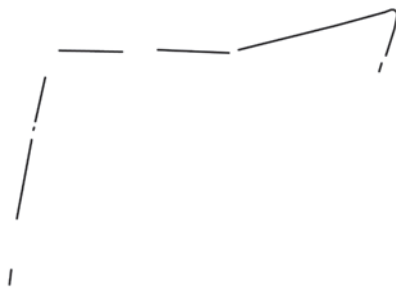




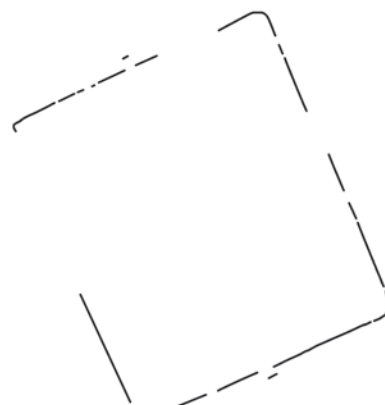




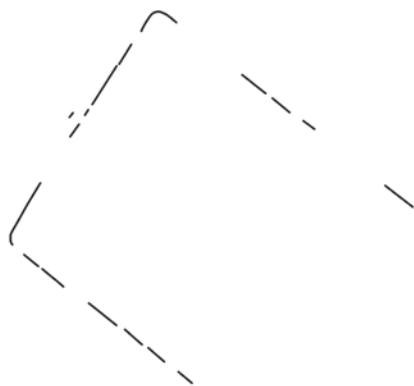
Newstead IV



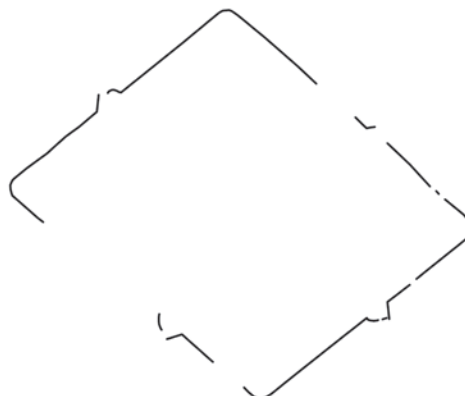
Castledykes IV



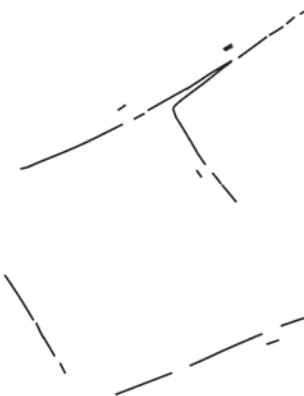
Finavon



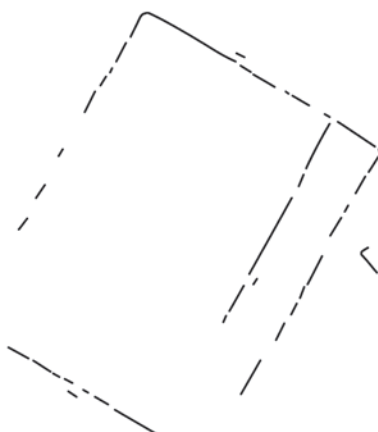
Kirkhouse



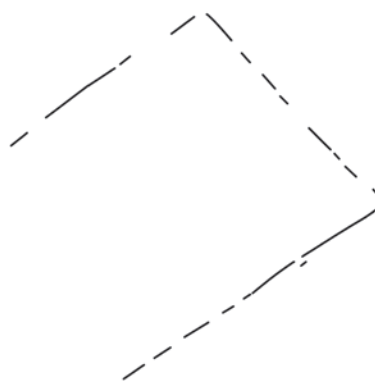
Stracathro



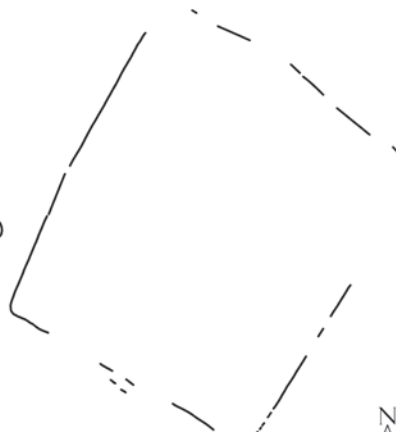
Castlecraig I & II



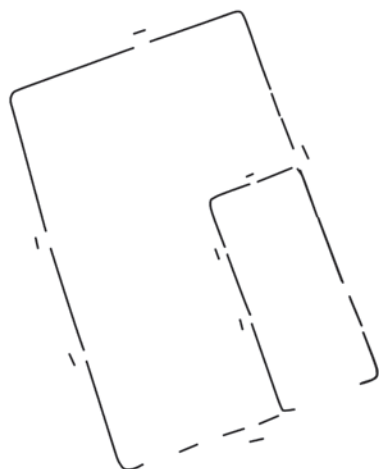
Cornhill I & II



Middlebie Hill I



Glenluce



Pennymuir I & II



Bankhead Carnwath I



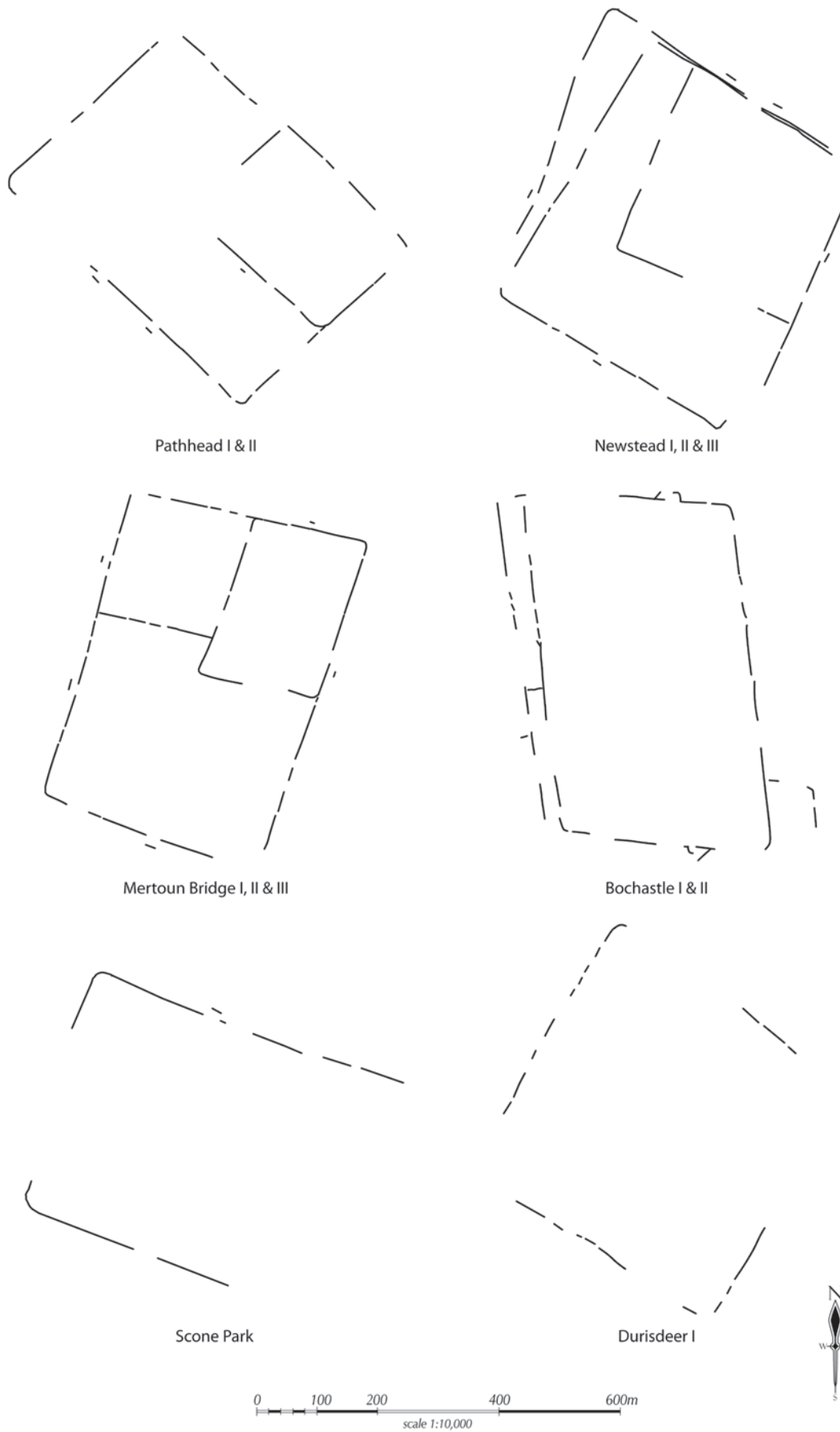
Blainslie



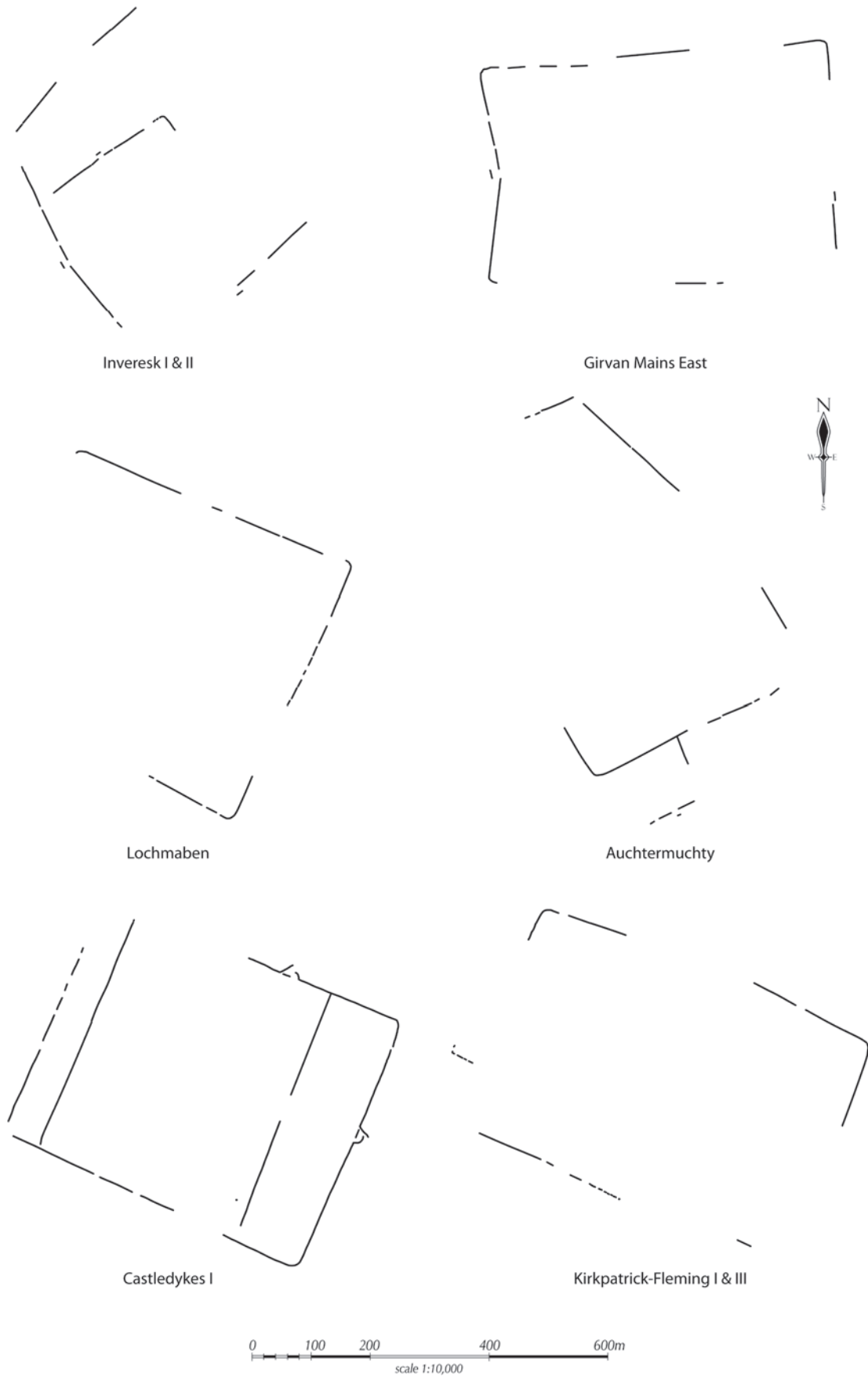
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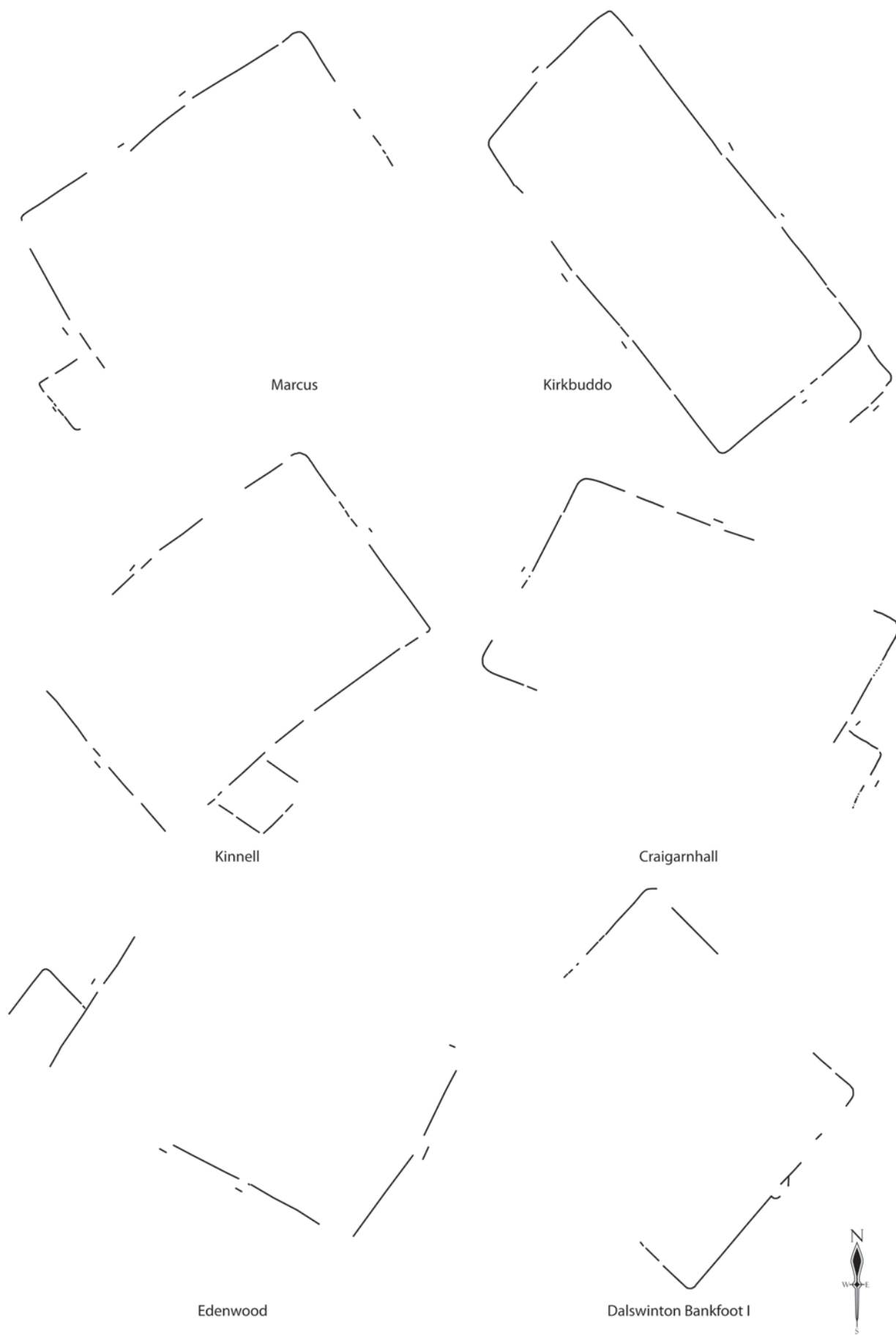


ROMAN CAMPS IN SCOTLAND



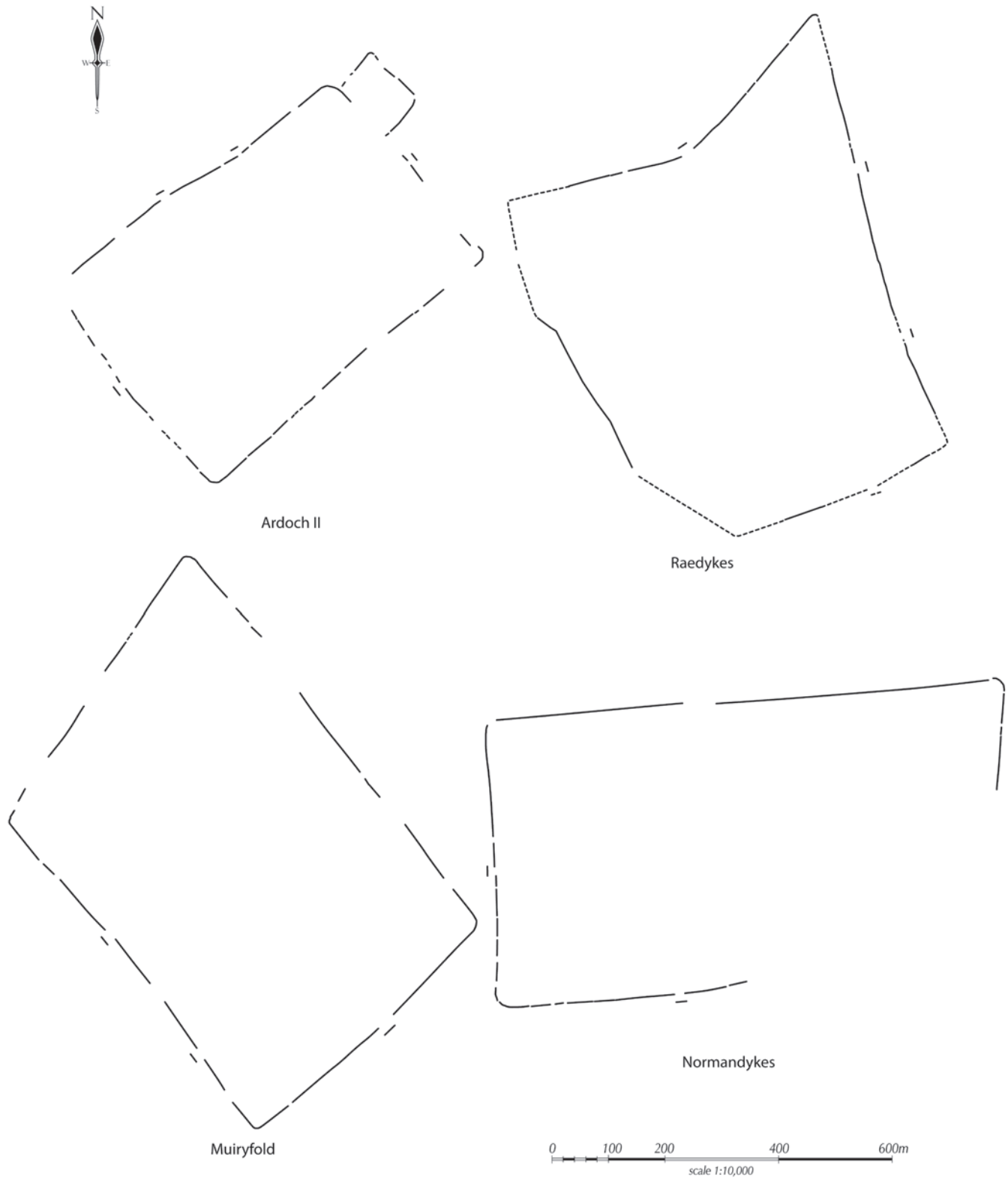
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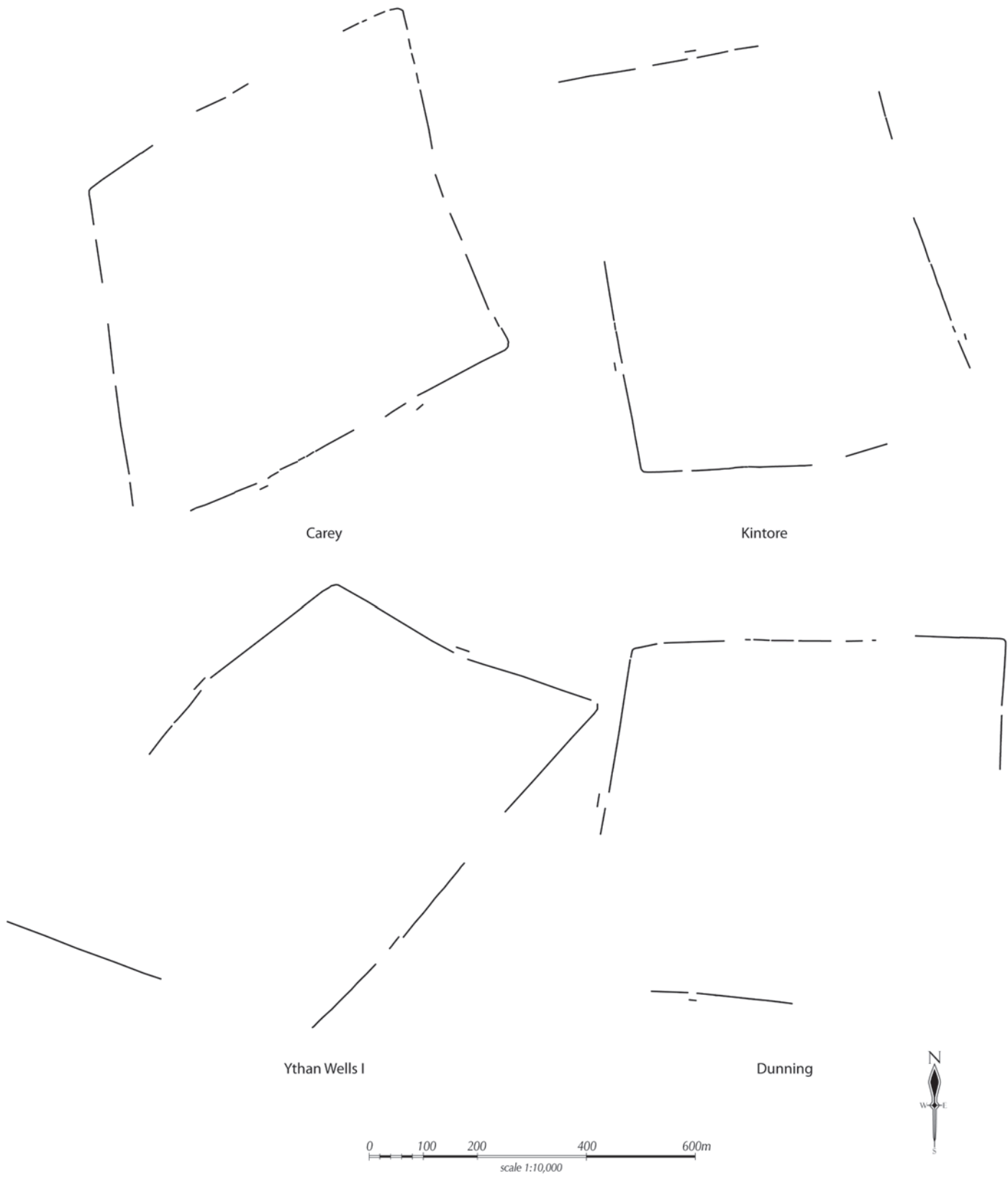


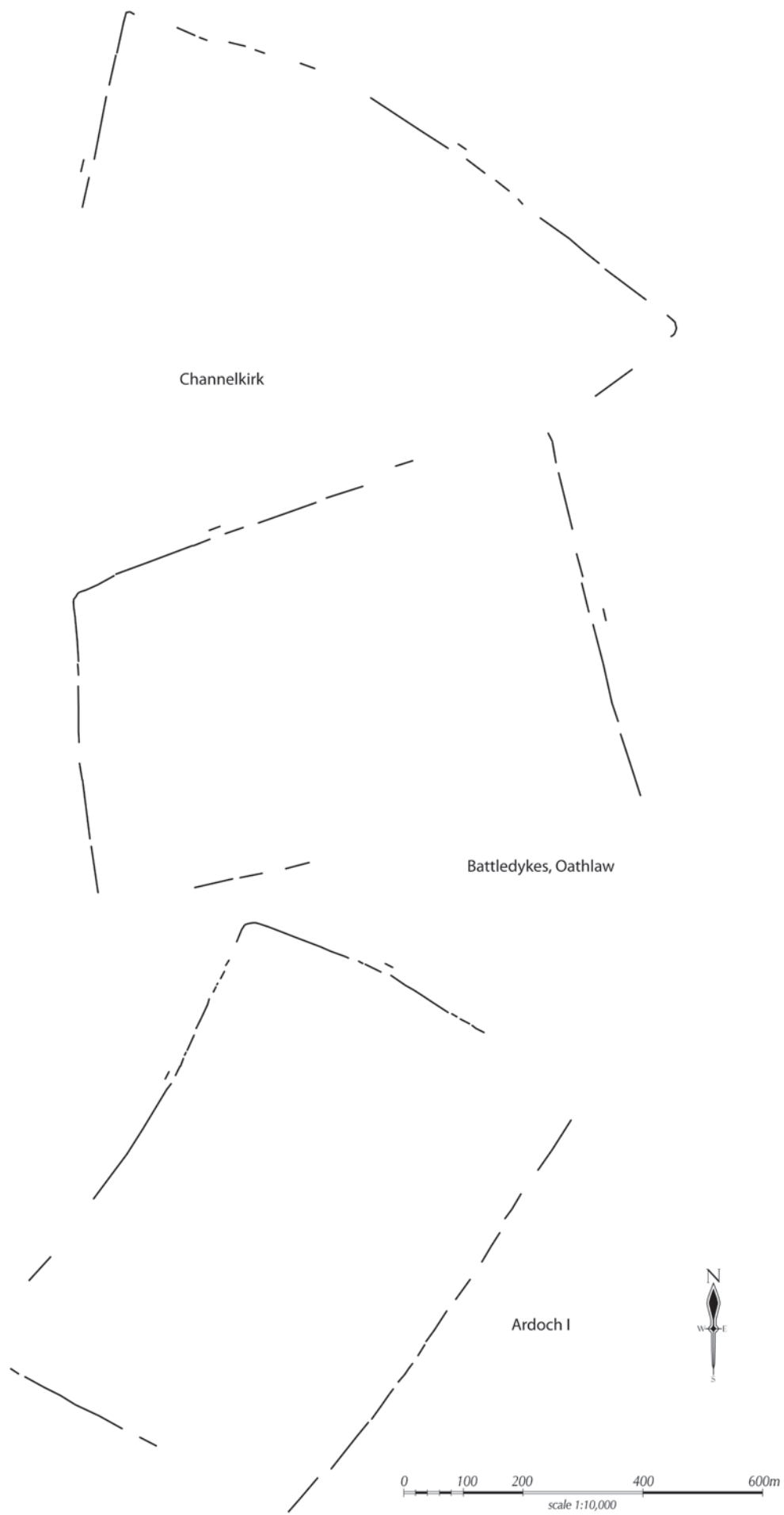


ROMAN CAMPS IN SCOTLAND

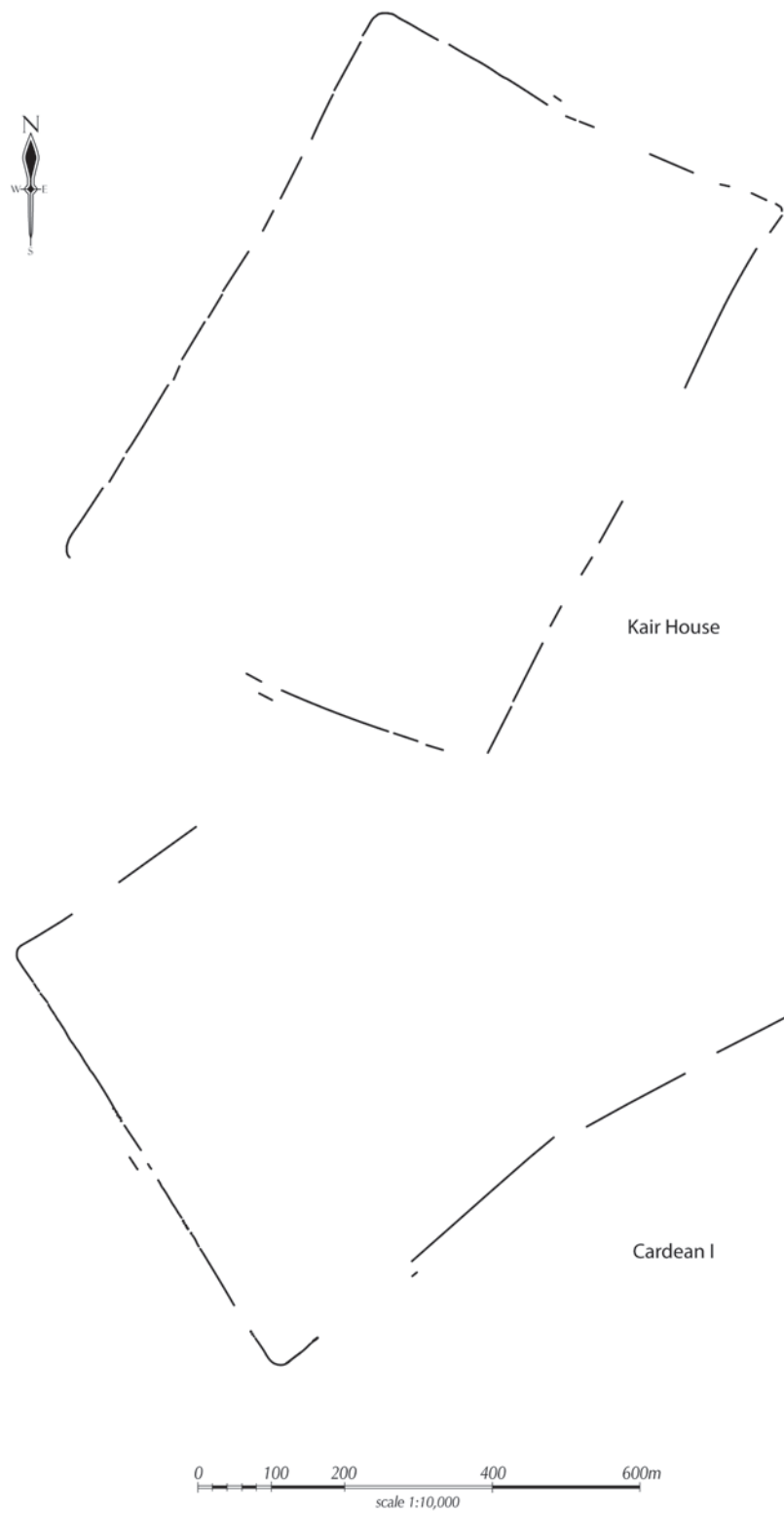


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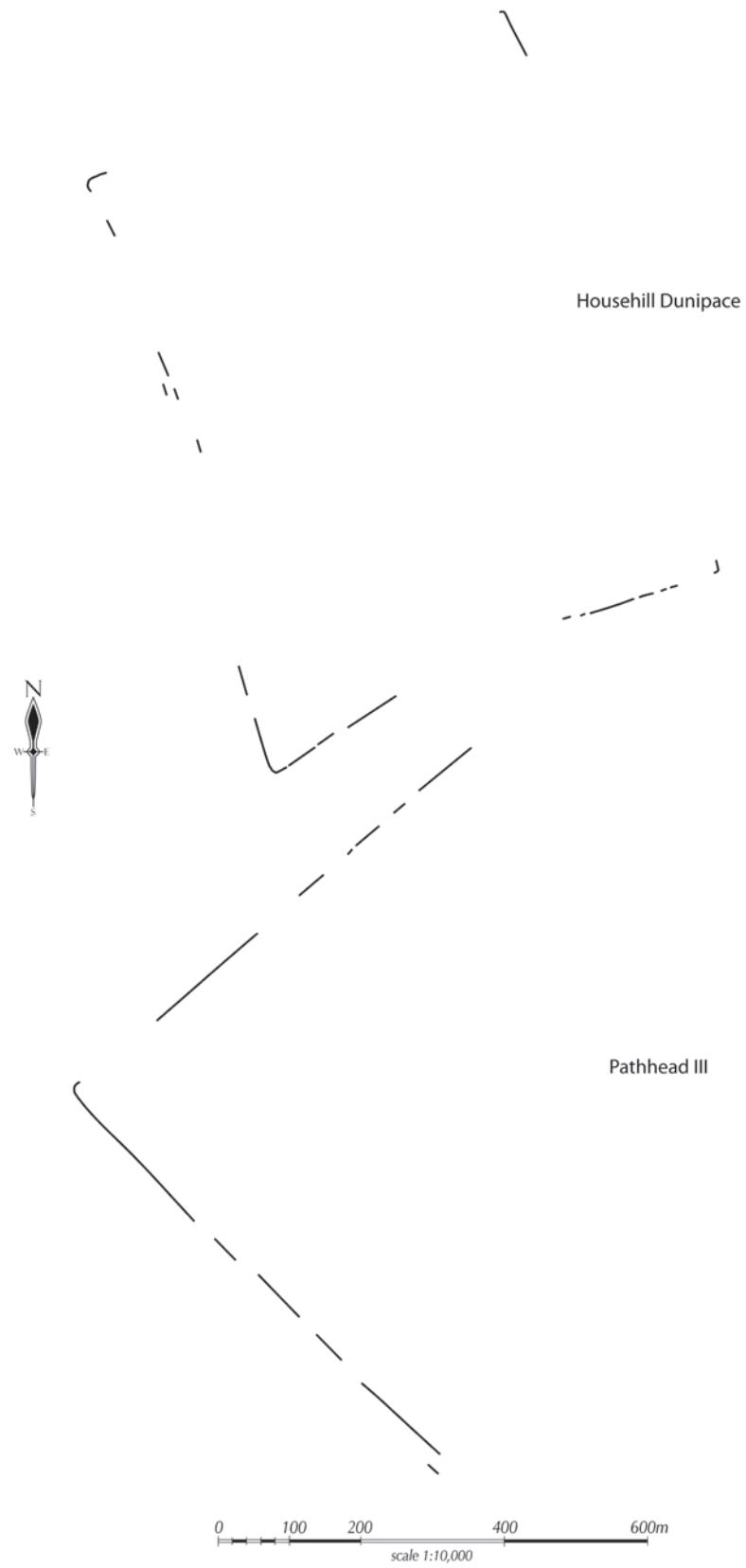




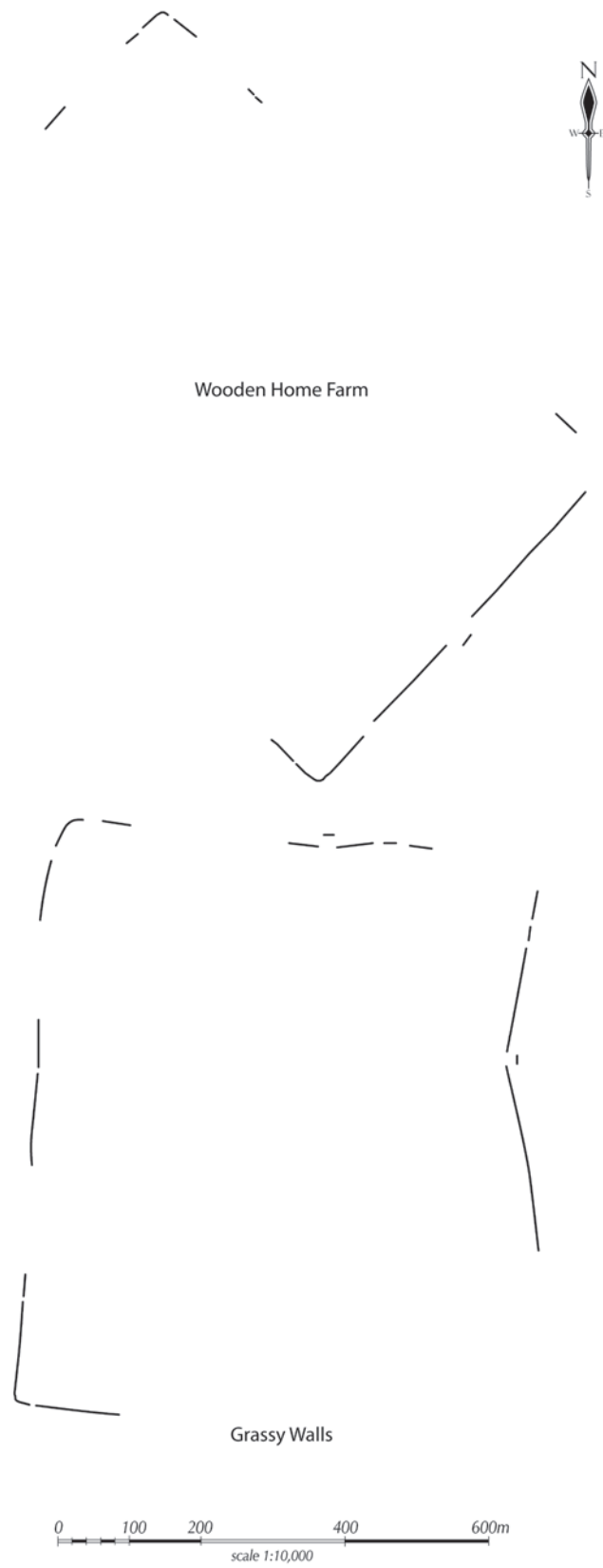
THE FIELD EVIDENCE



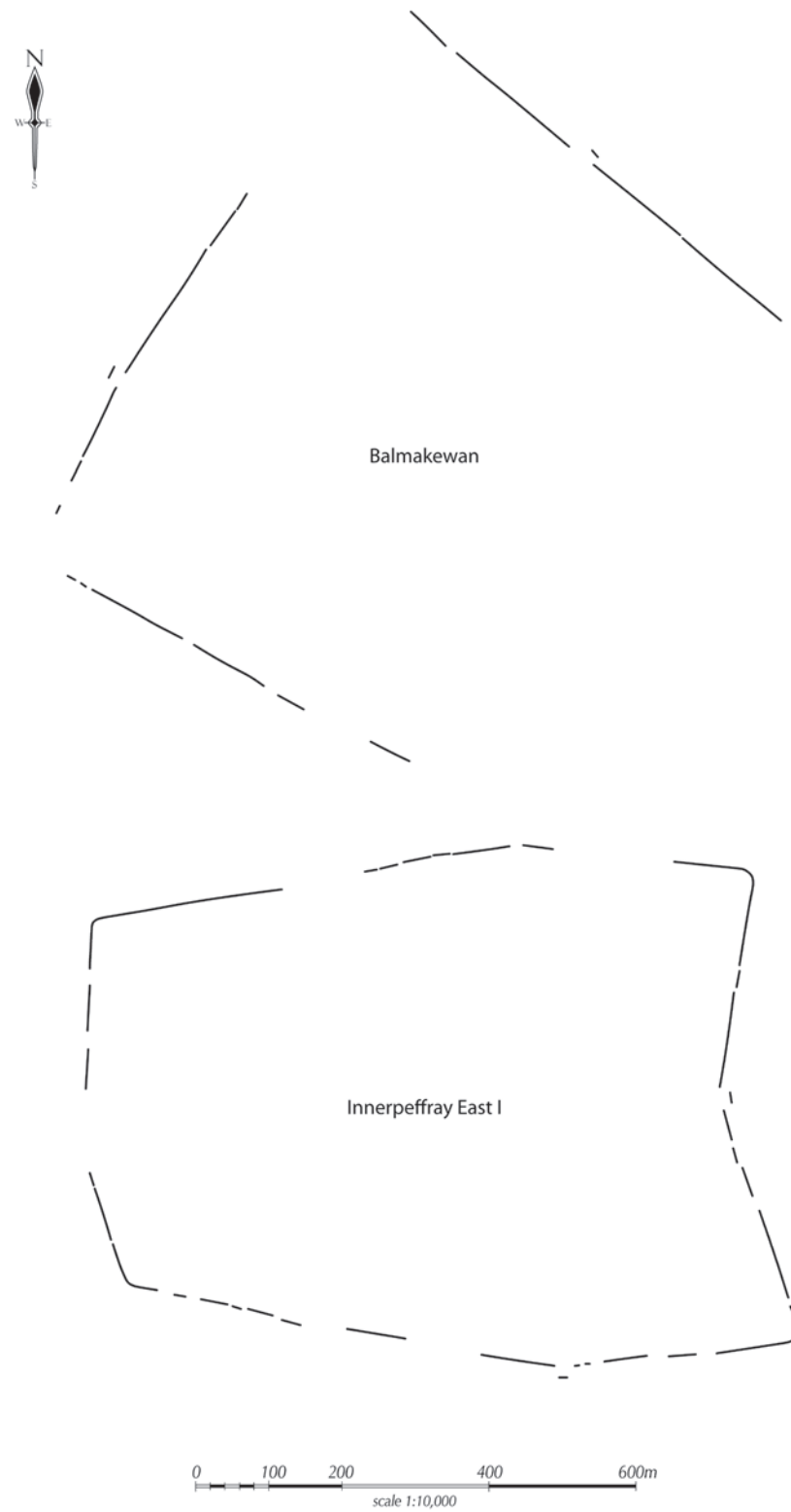
ROMAN CAMPS IN SCOTLAND



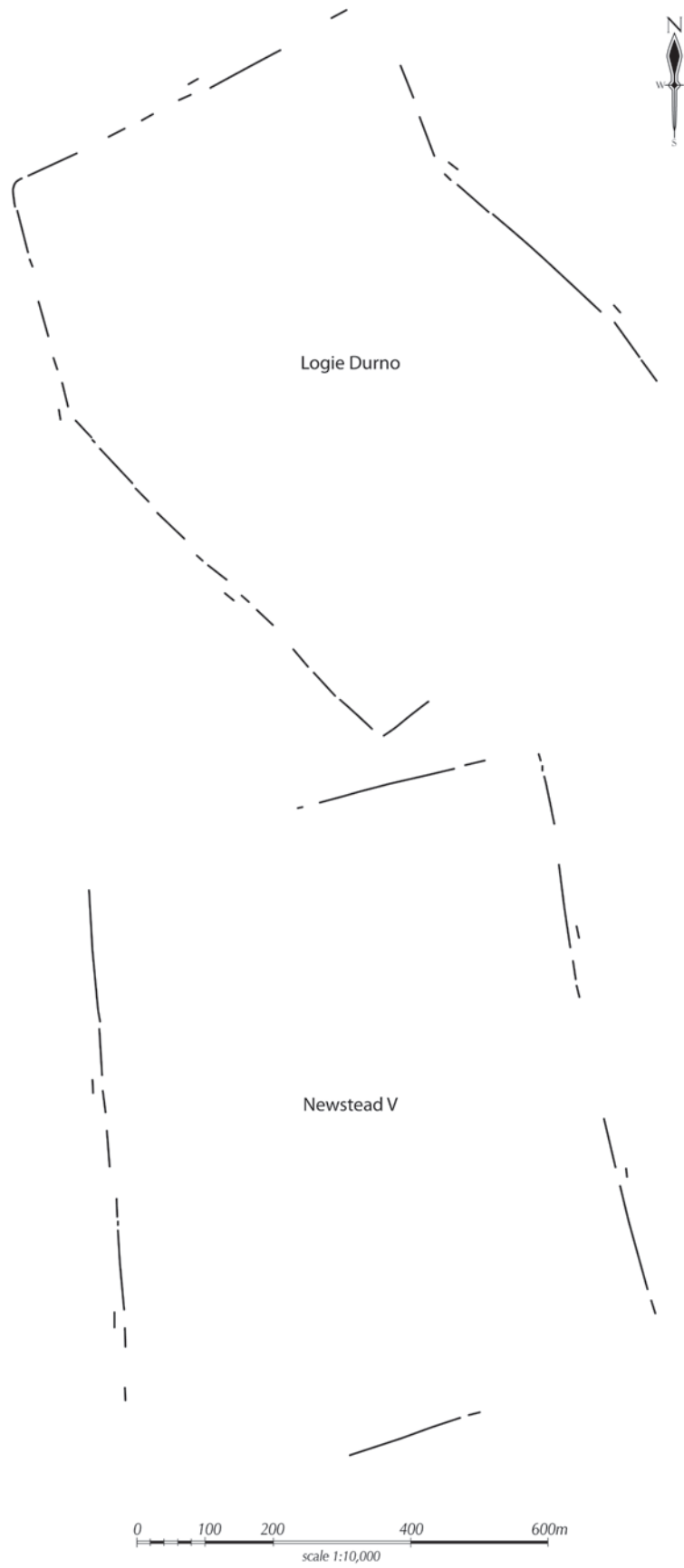
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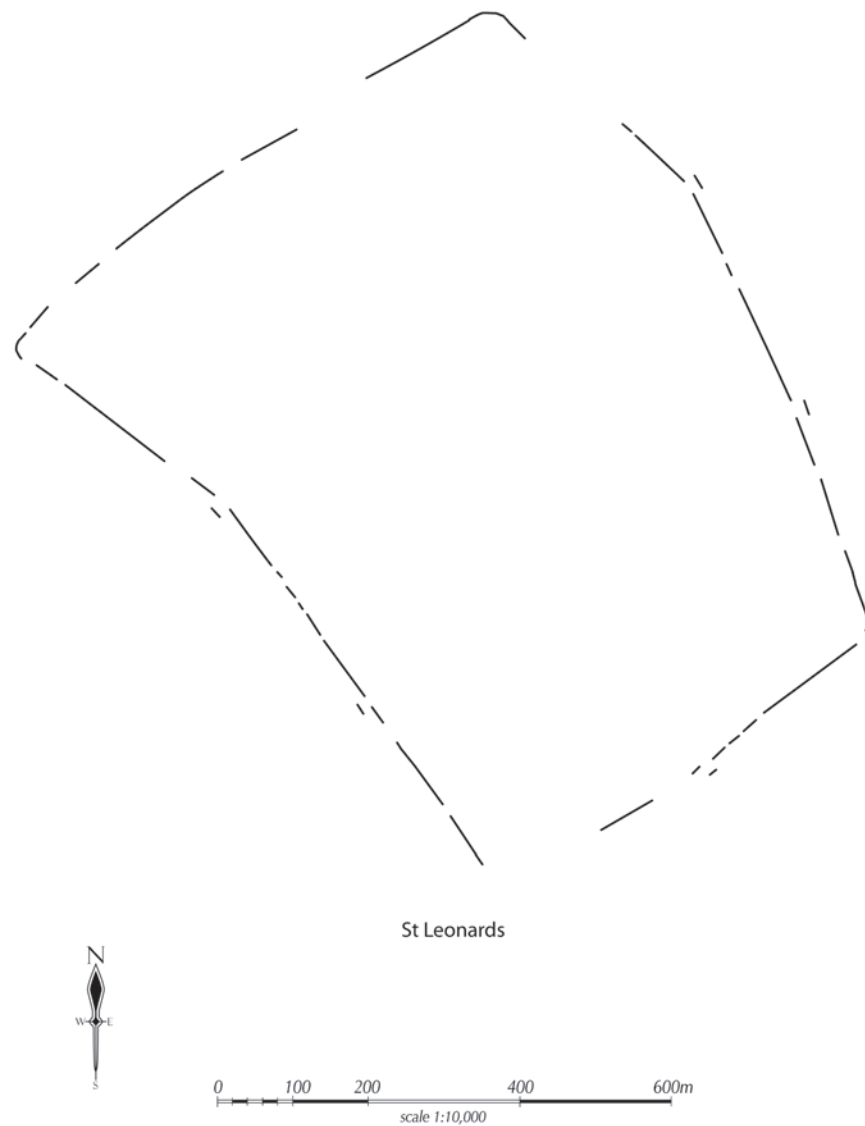


ROMAN CAMPS IN SCOTLAND



THE FIELD EVIDENCE





camp builders was to identify a piece of ground suitable for camping.

Yet, despite the indications given by the archaeology (eg the position of the side gates), it is difficult to state with confidence the orientation of many of the camps in Scotland. We can be reasonably confident of the orientation of around 30% of these, and there are two options for a further 40%, usually owing to uncertainty over the position of the side gates, or because the camps have two gates in their longer sides (six gates in total). However, in the case of the latter, other factors such as topography and direction of march may help to assess the camp direction, although determining this assumes that we know the route and objective of the travelling army. It is often presumed that many of the camps in

Scotland represent the halting points for invasion forces into territory (enabling speculation over the direction of march), but other interpretations can be made for many of these (see Chapter 2.2 above). The instruction that the camp should face the enemy probably relates more to camping in advance of pitched battle than to an army operating generally in northern Britain, where it appears evident from the classical texts that pitched battles were infrequent.

It is not known why Vegetius states that a camp should face in an easterly direction. Milner comments that it may have been a Christian influence (1996: 24n), but the Persian king Cyrus (over five centuries before Christ) also made it his custom to have his tent pitched facing east (Xenophon *Κυρου Παιδεια* VIII.5.3), and it may

be something as simple as facing the rising sun. Yet, some 59% of those camps for which we can be confident of the orientation do appear to face that general direction.

The camps for which orientation is considered known include a number along the line of the Antonine Wall. These camps, broadly lying to the south of the Wall, all face in a northerly direction (including north-east and north-west) towards the line of the Wall. Elsewhere, a number of camps face a nearby fort, demonstrating that this was the focus, and thereby suggesting an archaeological relationship between the two (but not necessarily implying that the camp was a labour or construction camp for the fort). For example, the various phases of camps at **Castledykes** (illus 101) face in the general direction of the fort (except **Castledykes IV**, the orientation of which we do not know, and the unknown southern side of this camp may have a relationship with the fort annexes). The camp at **Raeburnfoot** faces the fort to the south-west (illus 192), although, on current evidence, the camp is believed to be of Flavian date (owing to the presence of Stracathro-type gates, see 7b above), whereas the fort has yielded evidence for only Antonine occupation thus far (Robertson 1962). The date and orientation of the camp reinforce suggestions that the Antonine fort had a Flavian precursor, as yet undetected (Jones & McKeague 2009). On Dere Street, quite a number of camps appear to directly face the road (eg **Cappuck** (illus 93) and Featherwood West, the latter in Northumberland) possibly suggesting that they post-date its construction, whereas others probably face the general direction of march northwards up the route of the road, but the relationship between these camps and road is uncertain. Although only an either/or direction can be ascertained for some of the camps along Dere Street and elsewhere in Scotland, it is worth considering this further. Many camps are sited on a level terrace or ground which gently undulates, but occasionally there is a noticeable slope. On these occasions, a further handful of camps can be assigned an orientation if the surveyor adhered to the classical dictum of placing the *porta decumana* on higher ground; of these, exactly half face in a general easterly direction.

Thus we cannot state with any certainty that the camps in Scotland attempted to face in an easterly direction, despite Vegetius' dictum (*Epitoma* I.23). When looking at the directions for camps for which orientation can be proposed, about 46% face in a northerly direction (although 26% of the total face north-east and are therefore in both the north and the east facing groups). It is worth observing that Hyginus says nothing about facing a particular compass direction, instead proposing that

the camp should always face the enemy (*de munitionibus castrorum* 56).

Unsurprisingly, if all camps faced the enemy, then the enemy was located in all directions, because there is little obvious symmetry (see illus 47). This is perhaps to be expected of an army campaigning in possibly hostile territory beyond the existing conquered part of the province. However, there is a tendency for the camps along Dere Street to either face the road or the route of the road northwards, and quite a number of the camps in Dumfriesshire face in a westerly direction, presumably the general route of march in that area. Along the western routes into Scotland, camps sometimes face the road, but there is little consistency. However, where orientation can be determined along some of the river valleys, such as in the Tweed Valley and along the Lyne Water, it appears that many of the camps face the river. This is not the case for camps in the Upper Clyde Valley, although establishing orientation for many of these is problematic. Those for which direction can be suggested in this area seem to orientate on the nearby road rather than the river, confirming that the road took priority. At the large camp of **St Leonards**, close to Dere Street, it is clear that the prime concern of the camp builders was to orientate the camp to suit the topography: terrain was the prime motivator of orientation.

North of the Antonine Wall, some camps appear to face either the north-easterly or south-westerly route along which they were presumably travelling, but where camps can be grouped together (see Chapter 9), there is little cohesion in their general direction. For example, in the c44ha (110 acre) camp group (if the assessment of orientation according to topography is correct) **Normandykes** faces east, **Kintore** to the south, **Ythan Wells I** to the north-east and **Muiryfold** to the south-east.

Finally, it is worth commenting on the orientation of those few camps which have attached camps or annexes (see 7e below). Most of these are sited on fairly flat ground and the direction in which they face is often not easy to discern. However, the majority of camps with annexes are in the 25ha (63 acre) group (St Joseph 1969: 116–18; 1973: 230–1; Chapter 9) and, although these camps have six gates, it may be possible to assign orientation to many if we assume that the rear section of the camp (*retentura*) was on higher ground. In this group, orientation can be suggested for **Auchtermuchty** (south-east), **Craigarnhall** (south-east), **Edenwood** (north-west), **Innerpeffray West** (possibly south-west), **Keithock** (north-west), **Longforan** (probably south-west), and **Eassie** (north-west). The others are all sited on reasonably flat ground.

With the exception of **Innerpeffray West** and **Eassie**, the other five camps above all have the annexe situated outside the *porta praetoria*, attached onto the front of the camp. **Innerpeffray West** could be similarly laid out, if we assume that the camp faced north-east, the presumed direction of march and the side to which the annexe is attached, rather than south-west, where the ground drops away to the River Earn (the fort of Strageath lies across the river). No annexe is currently recorded at **Eassie**, but if this assumption of the annexe being outside the *porta praetoria* is correct, and camps such as **Eassie** were equipped with an annexe which has not yet been located, then this would suggest that the place to look at **Eassie** would be on its north-west side. Both **Lintrose** and **Scone Park**, the other two confirmed camps in this group without known annexes, are sited on ground that is too flat to determine direction with any confidence.

Therefore it appears that topography and the availability of a suitable amount of ground on which to house the troops were the primary factors in determining choice of site and layout of the camp. Welfare & Swan observed that in England there appears to be a preference for siting the rear of the camp on the crest (1995: 7–8) and a similar situation seems to occur in Wales (Davies & Jones 2006: 14–15). This also appears to have been the case at a number of sites in Scotland, and enables us to assign orientation to a number of camps for which this was uncertain (such as those with six gates). It surely must have been the case that the allocation of a sufficient amount of usable space to house troops and conduct the other necessary activities of the camp was paramount, alongside access to suitable water supplies. All this would have been far more important than minor degrees of latitude and longitude in orientation (*contra* Richardson 2005).

7e Annexes

The provision of annexes on temporary camps is uncommon, with less than 5% of all known camps in Britain exhibiting such additions and, of these, over 50% are broadly within the 25ha (63 acre) camp group in Scotland (St Joseph 1958: 93; 1965: 81; 1969: 116; 1973: 230). Three of the presumed construction camps for the Antonine Wall also exhibit annexes. The function of such annexes or attached camps is unknown.

It has been observed from the consideration of camp orientation (7d above) that many of the 25ha camps appear to have their annexes attached to the outside of the front of the camp, to one side of the *porta praetoria*. If this is the case, then not only can this advise on where to look

for annexes outside other camps in this group, but it also signifies the importance of their function. Of the camps in this group, **Kinnell** (illus 158) is unusual in that it has an annexe which is located on one of the longer sides of the camp, the others all having theirs on the shorter ends. Quite why the camp at **Kinnell** is different is unknown, because there is no obvious topographical reason to locate the annexe to the side, the camp being sited on flat ground. **Glenlochar V** (a 12.8ha camp – illus 137) has an annexe on one side of the camp, and this exhibits an internal partition. Unlike the rest of that camp, where numerous pits are visible in the interior, the annexe appears to be devoid of such features, suggesting that it may have been used for a different purpose. The small camp at **Millside Wood II** (2.37ha – illus 177) also has a very small annexe (0.25ha) on its longer side, just behind the *porta principalis dextra*. The only other possible annexe located on the long side of a camp is that at **Bochastle** (illus 89), although it is unclear whether the enclosure on the east side of the camp is an annexe or perhaps a later feature utilising the Roman remains.

Farther afield, the camp at Moss Side II, lying just to the south of Hadrian's Wall in Cumbria (Welfare & Swan 1995: 41–2), appears to be the only camp in Britain outside Scotland to possess an annexe (also on its longer side), although an earthwork on one end of the camp at Arosfa Garreg in Carmarthenshire has also been claimed as a possible annexe. However, there is debate as to whether this is Roman in date or later (Davies & Jones 2006: 20, 103–4). Interestingly, this alleged 'annexe' lies close to the *porta decumana* of Arosfa Garreg, and if the argument that most marching camp annexes are usually located to the front is correct, then this would support the case against this additional earthwork being of Roman construction.

The camp at **Kirkpatrick-Fleming I** (illus 162) revealed a possible annexe on its WNW side on excavation (Leslie forthcoming). This may be an annexe located on the front of the camp, like the other 25ha camps, because the army was probably travelling in this direction given its strategic location just north-west of Carlisle. Only a small amount of the structure is known, but it appears smaller than other 25ha camp annexes, may have intersected with a possible Roman road also recorded in the camp (Leslie forthcoming), and probably also came very close to, and even covered, the entrance gap, the presumed *porta praetoria* on that side. An alternative scenario would be that it is a very small camp or roadside post unrelated to the camp and did not function as an annexe, because no relationship could be established between this feature and the main camp (A F Leslie pers comm) While the possibility that

an annexe would cover the *porta praetoria* seems unlikely, a similar situation can be observed at the camp at **Blainslie** (illus 88), where the annexe appears to enclose the southern gate of the camp. This gate is probably the front entrance, given that the camp slopes to the south and the location of the known side gate suggests that it faces in a southerly direction.

Outwith the 25ha camps and those mentioned above, the other camps with annexes in Scotland are three camps on the Antonine Wall (**Balmuildy** (illus 81), **Little Kerse** and **Polmonthill** (illus 166)), and also **Carlops Spittal I** (illus 96) and **Ardoch V** (illus 77). **Balmuildy** is unusual in that it appears to have a second annexe located alongside the first. The small camp at **Ardoch V** exhibits an annexe on its south side, and the unusual ‘temporary’ enclosures under the forts at **Bar Hill** (illus 83) and **Croy Hill** (illus 217) on the Antonine Wall both had curious forms of annexes. It is also worth noting that **Drumlanrig II** could be a large annexe to **Drumlanrig I** rather than a separate camp (illus 114). On the other side of the Nith, the camp at **Carronbridge** (illus 98) overlies an earlier enclosure, but, given a lack of dating evidence for the latter and its relationship to the camp, it is possible it continued in use as an annexe-type feature.



Illustration 48

Aerial view of the south-west side and annexe of the camp at Marcus, taken from the south-east in 1986. © Crown copyright: RCAHMS. SC1164042. Licensors www.rcahms.gov.uk.

With regard to chronology, the three camps on the Antonine Wall are probably Antonine in date and, indeed, **Little Kerse** has produced Antonine pottery (McCord & Tait 1980). The small camp at Moss Side in Cumbria may be Flavian to Hadrianic in date, although there is no dating evidence to confirm this suggestion (Welfare & Swan 1995: 41–2). The dating of the 25ha camps is unknown (despite St Joseph’s claims of a Severan date: 1969: 116; see discussion in Chapter 10). **Bochastle**, **Glenlochar V** and **Ardoch V** could be Flavian camps, sited outside Flavian forts, although the forts at **Glenlochar** and **Ardoch** both had Antonine occupations. **Ardoch V** is probably earlier than the ‘*Procestrium*’ attached to the fort, but the date of this earthwork is unknown. The date of **Carlops Spittal I** and **Millside Wood II** is also not known, both being located beside Roman roads.

There is a difference in the size of annexes, the most uniformity unsurprisingly being demonstrated by those attached to the 25ha camps (eg **Marcus** – illus 48 & 174). Except for the curious feature next to **Kirkpatrick-Fleming I** (which is geographically removed from the other camps in this group), the 25ha camp annexes range in size from 1ha to 1.27ha (except for **Longforgan** which is larger at 1.52ha). Their length ranges from 108m to 131m, and width from 86m to 113m. In other camps, the annexe to **Glenlochar V** is the largest known (1.74ha) and demonstrates an internal partition, potentially reducing the area to two enclosures measuring 1.2ha and 0.54ha. Elsewhere, annexes range in size from 0.25ha (**Millside Wood II**) to 0.84ha (**Carlops Spittal I**). Apparent outworks are also noted at the camp at **Islafoot Drumlanrig**, sitting within a larger enclosure demarcating the area on one side (the river restricting the other). If this enclosure is Roman in date then it demarcates an additional area next to the camp.

While uniformity is demonstrated in the 25ha group in terms of general location and size, this does not explain their function, nor that of the annexes attached to other camps in Scotland. The lack of knowledge about the function of annexes attached to permanent forts has been recognised (Barclay 1997: 31), although this has been variously discussed. For example, Bailey proposed multifunctional purposes to annexes, with specialised production zones, noting that many of the Antonine Wall fort annexes housed bathhouses (1994: 310). This was in contrast to earlier suggestions that annexes were used to house civil settlements (eg Collingwood & Richmond 1969: 89), although it had also been suggested that Antonine Wall annexes were military, and performed a similar function to the area enclosed within the Vallum

to the south of Hadrian's Wall (Salway, 1965, 158). Recent excavations on the annexe at the Flavian fort at Elginhaugh support a military function (Hanson 2007). But there is no general consensus as to the function of annexes on more permanent structures, and even less work has been undertaken regarding the purpose of annexes in the context of more temporary *castra*. Excavation work on annexes, as on the camps themselves, has concentrated on the ditches, although work at **Longforgan** revealed a small circular scoop of uncertain date or function within the annexe; analysis of the fill suggested that the annexe ditch was backfilled quickly, although the excavators could not say whether this was a result of deliberate back-filling or rapid weathering (Neighbour 1998).

It has been commented that a detachment of troops might often have been left behind to guard a camp when the main body was temporarily absent (Jones 1958: 85) and St Joseph proposed that annexes to the 25ha series might have served for a small holding-garrison while the main body of troops were campaigning elsewhere (1965: 81). These ideas have been further developed by Maxwell, noting Tacitus' comment that Vocula left behind small groups of men to guard the command posts during the Batavian revolt in AD 69 (*Historiae* iv.35; Maxwell 1989: 63–4). Maxwell also suggested that the annexes could have functioned as accommodation for personnel not otherwise housed in the confines of the camp enclosure, such as scouts and hostages (1989a: 63–4). While these arguments may be valid for an army on campaign, possibly those occupying the 25ha group and other marching camps in Scotland, they cannot apply to an army stationed temporarily in an area while undertaking construction work, such as the camps on the Antonine Wall, thereby suggesting differing functions for different annexes.

The suggestion of small units attached to the camp is intriguing. Such units, forming a crucial role in reconnaissance, for example, could be expected outside the front of the camp. But this still begs the question that, if these troops were travelling with a larger army, why would they need to camp in an annexe rather than within the main body of the camp? Perhaps they were travelling separately and arrived at a different time to the main force, or perhaps it was easier for access and rapid movement to be housed outside the camp. If they were travelling separately and joined a main force later, then this could explain their seemingly random distribution in the camps outside the 25ha group, because at other times they may have camped with the main force if there was space allocated for them within the camp perimeter (Jones 2009a: 873–4). But this does not explain the lack

of pits in the annexe at **Glenlochar**, nor the rarity with which annexes are found. If the annexes housed hostages, again settlement activity such as pits would be expected, and presumably hostages, as with most additional baggage, could be located anywhere. In addition, one might argue that these should be housed in the main body of the camp, where they would be under stronger guard than outside the perimeter.

Whether or not camp annexes performed some sort of industrial function cannot be identified without further work. Excavations at **Kintore** have illustrated that a certain level of industrial activity was carried out by the army on campaign within the confines of the camp. It is possible that this was carried out within the main perimeter by the army that occupied the 44ha camps, but those in the 25ha camps preferred to conduct this work outside the camp, but still protected by a ditch and rampart within the annexe. However, if this involved ongoing repairs and routine maintenance of weaponry, then again, perhaps, one would expect such important items to be repaired in the more secure confines of the main camp perimeter. The annexe at **Glenlochar V** is the only area of that camp which does not appear to be full of pits and ovens. This demonstrates that this annexe was used for different activities to those conducted within the main camp perimeter. If industrial activity was being undertaken in the annexe, then perhaps we should expect some internal features to be visible in the aerial record (such as pits). This does not appear to have been the case at **Glenlochar**, although further work is required to determine if this supposition is correct, and this theory does not necessarily need to be applied to all camp annexes.

Annexes to three camps along the Antonine Wall may have been used for a different purpose than those attached to marching camps. An army engaged in construction work on the mural barrier may have needed additional space to store tools and other supplies, although this does not explain why they are recorded at only three camps, two (**Little Kerse** and **Polmonthill**) being located only 300m apart. More of these 'stores' or small camps should be expected along the Wall, and perhaps some can be identified at **Inveravon III** (illus 149), and in the **Lochlands Three Bridges** area (illus 167), and several sites must be lost through modern building developments as well as the agricultural practices of recent centuries.

Some classical texts refer to camp followers (*lixae*), and, although these sometime appear to have been inside the camp (Sallust *de Bello Jugurtha* XLIV–XLV), elsewhere they appear to have camped outside the rampart (Caesar *de Bello Gallico* VI.37). Whether these would have

been provided with their own attached enclosure is unknown, and again does not explain the absence of pits at **Glenlochar V**. Camp followers appear to be almost invisible in the archaeological record. We do not know how important they were to an army on campaign (or even manoeuvres), nor how frequently they followed the army. Caesar records that traders and camp followers camped outside the rampart, noted above, but elsewhere suggests they were allowed within the camp defences (eg *de Bello Gallico* VI.36). However, whether such followers were frequently housed within the main body of the camp by the time of the Flavian and later campaigns in north Britain is debatable. If camp followers were in the annexes, this does not explain why these were so important to the army occupying the 25ha camps that they should be housed outside the *porta praetoria*, because such comings and goings could have been conducted through the side and rear gates, unless these *lixae* performed a vital function to that army. If the 25ha camps date to the campaigns of Septimius Severus and Caracalla, it could be argued that they may have housed elements of the imperial party. But it seems more likely that such important travellers would have been housed within the main body of the camp.

Annexes on camps may well relate to activity that was usually conducted within the camp elsewhere, but for some reason was relegated to the annexes on the 25ha camps, and the handful of other camps with such features. Perhaps it relates to the predilections of the camp commanders, in the same way that the construction of Stracathro-type gates on camps may have been down to the choice of an individual *praefectus castrorum* (see 7b above). One possibility is that the annexes were used to enclose something which the commanders did not want in the camp on some occasions (such as in the 25ha campaign group), but were essential for the army, which is why they were at the front. They may, for example, have housed mules, baggage animals and wagons for the army on campaign. Indeed, the fortlet at Oxton (close to the camps at **Oxton** and **Channelkirk**) possesses annexes on three sides, that on the south-east extending for some 225m. Owing to its location on a low ridge in the Lammermuir Hills, just before Dere Street climbs over Turf Law, Dun Law and Soutra Hill, it has been proposed as a wagon park for the traffic using the road (Maxwell & Wilson 1987: 25–6). This seems the most likely explanation for this particular extended feature, and demonstrates the possible use of annexes to house vehicular traffic (wagons and mules). There is no reason why this analogy cannot be applied to the annexes on camps, some commanders preferring to house such commodities within the camp, others within the annexe.

Maxwell has recently highlighted the similarity in size between annexes and some of the small camps in Britain (2005). The size range of annexes, approximately 0.8–1.5ha, sits quite happily in the range of overall sizes known for camps across Britain, with over forty now recorded of this size. It is also worth commenting that the four camps now known outside the legionary fortress at York (Bootham Stray I and II, Welfare & Swan 1995: 135–6; Monks Cross East and West, Burnham 2003: 313) are within this size range, as are many of the camps in the vicinity of the legionary fortress at Chester (Philpott 1998). This demonstrates that it was a common size to house troops on the move and, more specifically, their presence outside legionary fortresses hints at small detachments of legionaries. What these troops were doing is unknown, but legionary (and indeed auxiliary) reconnaissance troops could have operated in small detachments in camps of c 1ha, and this could be the size employed for a single cohort. The small camp on the **Inchtuthil** plateau (**Inchtuthil I**) is just under 0.9ha in size and, given its location, is probably early in the sequence of works, possibly representing the earliest force of reconnaissance troops or scouts at the site (illus 145).

Whatever the function of the annexes, it is apparent that they were a standard element of the army that utilised 25ha camps, reinforcing this group as a coherent ‘series’ (see Chapter 9) and indicating that these were linked, probably in the same campaign. The most likely interpretation of the annexes is that they were multifunctional. Some may have housed mules and wagons and other items that could easily be excluded from the main body of the camp for reasons of noise, smell and general convenience; some may have been utilised for industrial activities; and others may have housed small reconnaissance troops, perhaps a regular feature of the 25ha army camp in Scotland.

7f Internal features

Until recently, little attention has been paid to camp interiors, which were commonly believed to be largely devoid of archaeological features. Consequently, there has been far more focus on the perimeters of camps, often with the hope that these would confirm that the sites were Roman and yield evidence for their dates. Indeed, pottery has been found in the ditch fill at several camps (eg **Carey**, **Dullatur** and **Dun**), enabling the excavators to assign those camps to particular periods.

However, camps accommodated many thousands of men and their accompanying horses, baggage and mules (Hyginus *de munitionibus castrorum* 1). These soldiers,



Illustration 49

View of a reconstruction of Roman tents at Archaeolink Prehistory Park, Aberdeenshire (taken in 2004).

housed in leather tents (illus 49), would have required places for cooking (hearths and ovens), latrines, and general rubbish pits. The length of time during which a camp was occupied is unknown and no doubt would have varied greatly depending on the circumstances of occupation and the purpose of the camp. It might be expected that construction camps, such as those identified along the Antonine Wall, would have housed troops for a longer period than normal and, therefore, be more likely to provide evidence for internal settlement. However, in the limited excavations on the camps along the Antonine Wall, few internal features have been found (except at **Lochlands**, north of the Wall). Several trenches were placed in the interiors at **Dullatur** and **Tollpark**, but no features were recorded (Lowe & Moloney 2000: 239–41; White forthcoming). At **Inveravon I**, two possible stone-packed post-holes were recorded in the interior of the camp (Keppie & Walker 1990: 143).

At siege camps, where the occupation may also have extended over a protracted period, greater information on internal structures has been recorded, particularly at camps in the Near East, such as Masada, where the main construction material was stone (Richmond 1962; Yadin 1966). At **Burnswark** Hill, prolonged occupancy of the southern camp was suggested by the discovery of

paved roads and building debris during excavations in the late 19th century (Barbour 1899: 224–31); this could not be relocated during later excavations, although paving was noted (Jobey 1978: 79–82).

Excavations in other camp interiors have also revealed areas of cobbling or paving. Light cobbling and post-hole depressions were identified in the interior of **Hillside Annan**, and cobbling and burning, which was presumed to be contemporary, in the structure under the fort at **Bar Hill**. In contrast, exploratory trenches ‘cut as near the centre of the camp as was practicable’ at **Ythan Wells I** failed to locate any features (Macdonald 1916: 358). However, looking at the camps with internal features visible on air photographs (see below), the centre of the camp



Illustration 50

Aerial view of Steeds Stalls, showing the upstanding and cropmark ‘stalls’, taken from the NNW in 1977. © Crown copyright: RCAHMS. SC1164186. Licensor www.rcahms.gov.uk.

appears to be one area with less evidence for activity that leaves an obvious archaeological trace.

Interior features of camps could be expected to give clues as to their function, and it is arguable that more features should be expected from those sites which had a longer period of occupation (although this has not yet been

northern half. These stalls were originally identified as quarry test pits because the camp lies close to a probable Roman quarry from which it is suggested that material was taken for the construction of the nearby fortress at Inchtuthil (Pitts & St Joseph 1985: 255–6). They have also been interpreted as probable lime-kilns (RCAHMS 1994:

83). (Another explanation that they were related to a stone victory monument (Woolliscroft & Hoffmann 2006, 71–2) seems implausible.) The purpose of the dividing ditch could be to separate the areas of industrial activity from other activities within the camp, and although the presence of a solitary cropmark ‘stall’ in the southern half could militate against this theory, that ‘stall’ could have been abandoned early in the life of the camp or represent a late addition. The contemporaneity of these structures with one another and the camp perimeter is not proven, but highly likely.

In the 1990s, Alan Leslie's work on excavations at Roman camp sites highlighted the need for investigations within their interiors, and two of his sites, **Inveresk I** and **Beattock Bankend**, revealed ovens and pits during small-scale investigations of their interiors (1995). Furthermore, since developer-funded fieldwork has led to larger areas of camp interiors being excavated, many of his observations continue to be confirmed through the discovery of

features believed to be contemporary with the occupation of the camp, none more so than at **Kintore** (see below).

Ovens

A broad range of features, in different states of preservation, is now known from camp interiors. Bipartite ovens (illus 51), by far the most common type recorded, are known at a number of sites; features variously described as oven pits, cooking pits and fire pits are also recorded. On permanent forts and fortresses, ovens are often located in the *intervallum* area, close to the fort rampart, and this scenario is usually assumed for more temporary structures.



Illustration 51

View of an Oven (O087) from the excavations at Forest Road, Kintore. Copyright: AOC Archaeology Group.

observed at ‘construction’ camps, noted earlier). Maxwell has commented on the potential use of some temporary camps as ‘seasonal bases’ with a longer occupancy, citing **Dalginross** (1981: 35) and **Inchtuthil** (1982a: 113), largely on the basis of the aerial photographic evidence for internal features (see below).

One camp with clear internal structures is that at **Steeds Stalls, Gourdie**, where a suite of ‘stalls’ are upstanding within the interior of the camp, with further tadpole-like potential ‘stalls’ visible as cropmarks (illus 50 & 198). An internal dividing ditch is also visible as a cropmark, with all but one of the ‘stalls’ located in the



Illustration 52

Aerial view of the eastern part of Inchtuthil II/III with adjacent fortress, showing the number of pits within and outside the camps and the 'western vallum' (taken from the south in 1984). © Crown copyright: RCAHMS. SC1164047. Licensor www.rcahms.gov.uk.

At **Inchtuthil**, the pits located close to the perimeter of camps II–III have been interpreted as cooking-ovens (Maxwell 1982a: 107–8; Frere 1985b: 229–30). These have not been excavated, but their cropmark remains have the appearance of slightly elongated hollows reminiscent of ovens, and are closely spaced around the perimeter in the areas in which they are visible (illus 52, 145 & 146). Some of the other pits visible in the interior of **Inchtuthil** were excavated, and interpreted as rubbish pits related to rows of tents (Frere 1985b). Elsewhere, probable ovens and cooking pits have been recorded during excavations at over a dozen sites. Some were located close to the camp perimeter (eg **Lochlands III**); at others (eg **Inveresk I**) they were a little further into the camp. At **Kintore** (see below), they are scattered throughout the camp. Excavations at **Lochlands Three Bridges** recorded pits, some of which were proposed as ovens or possibly even kilns, arguing for a semi-industrial purpose to the camps there, which lie close to the fort at Camelon (Bailey 2000). Earlier excavations between the Three Bridges area and Camelon recorded a series of 'fire pits', originally proposed as cremation pits, probably Roman in date

(Breeze & Rich-Gray 1980). It is possible that these lie within one of the camps in the area, although they may also relate to activity outside the nearby forts, independent of the camps.

Elsewhere in Britain, probable ovens have occasionally been excavated, eg Blaen-cwm Bach, Glamorgan (Chouls & Townsend 1970); Bromfield, Shropshire (Hughes *et al* 1995). At the latter site, the ovens appeared to have been fired on several occasions, something that has also been observed at **Kintore** (see below).

Pits and ovens are occasionally observed outside camp perimeters. At **Inchtuthil**, outside camps II and III and south-west of the fortress, numerous pits are visible (illus 52, 145 & 146). It is possible that these are part of a larger enclosed area on the Inchtuthil plateau, with the perimeter so far unknown, unless either the 'Western Vallum' or 'outer masking earthwork' represent the remains of this enclosure, which would therefore be later than the 'labour camps' because these earthworks are demonstrably later. However, it is equally likely that they indicate the presence of camp followers (Frere 1985b: 229). This is one of the few areas where such remains occur of a potential group of people largely ignored or invisible in the archaeological record. At **Glenlochar**, where quarry pits are visible in the area around the fort and camps, numerous pits are visible on the air photographs within camp V (illus 54 & 137). A few pits are also discernible just outside the camp on its south side, possibly also indicating settlement outside the camp, although they need not necessarily be contemporary with its occupation. Elongated pits are also visible to the south of the main complex at **Lochlands**. At **Drumlanrig II**, a series of pits is visible running parallel to, but outside, the south-west side of the camp. These are slightly irregular in appearance, although regularly spaced, and could relate to contemporary settlement outside the camp perimeter. However, it is equally likely that they represent convenient later use of a boundary feature – the remnants of the camp ditch and rampart. Pennant refers to oblong hollows outside the north side of **Dalginross** filled with wood-charcoal (1776: ii, 98), which Crawford then interpreted as possible *lilia* (1949: 43), but again these could also hint at camp followers close to the fort at **Dalginross**. In contrast to **Inchtuthil** and **Drumlanrig**, where the pits outside the camp ditch appear to be contemporary or later (in that they respect its line), at **Carronbridge** a probable oven was recorded cutting an earlier enclosure, which could conceivably also be Roman in date. This oven was interpreted as belonging to the occupation of the camp (Johnston 1994: 258–9).

However, not all bipartite ovens need necessarily be anything to do with the Roman army in Scotland. At **Kintore**, radiocarbon dates taken from excavated ovens include occasional late assays of from the 4th to 6th centuries AD (Alexander 2000: 31–2). Excavations at **Dalkeith** revealed two probable ovens within the camp, one of which was radiocarbon dated to the 5th century AD (Dunwell & Suddaby forthcoming). Whether these dates indicate post-Roman activity by the local communities, contamination of the samples, or problems with the radiocarbon dating programme cannot be ascertained without further corroborating evidence.

In addition, ovens of apparent Roman character are sometimes recorded away from Roman military sites. At Melville Nurseries, some 500m west of the Flavian fort at Elginhaugh, two bipartite pits dating to the Roman period were excavated and are of very similar character to Roman military ovens (Raisen & Rees 1996: 40–1, 44). Alternatively, these could relate to settlement within or outside unknown annexes to the Roman fort (although they are sited a considerable distance away) or to the Iron Age features in the vicinity. A similar structure is recorded close to a souterrain at Cowiehall Quarry, east of Bannockburn (Strachan 1999). Pits, which would have been used for burning and therefore possibly cooking, are not particularly uncommon in Scotland, with bipartite pits representing an efficient construction for a cooking oven. Burning pits are known at various sites, including Myrehead near Linlithgow (Barclay 1983: 69), ‘dumb-bell’ pits with charcoal from the prehistoric settlement at Dundee High Technology Park (Gibson & Tavener 1989: 86–7) and a possible medieval example was noted cutting the palisaded homestead at Bannockburn (Tavener & Rideout 1996: 208, 211). Similar ‘figure-of-eight’ pits with evidence for burning are recorded at other sites (eg Dalladies, Kincardineshire and Newmills, Perthshire, proposed as bowl-furnaces for iron-working within later Iron Age settlements: Watkins 1981a: 133, 161; 1981b: 182–3, 197).

Pits

Pit-like features are also frequently recorded on air photographs of Roman camps, but their contemporaneity can rarely be proven. It is only when a level of regularity can be seen, such as at **Dalginross**, **Inchtuthil II** and **III** and **Glenlochar V** (see below), that a level of confidence as to their Roman attribution can be accepted. Some ‘pits’ visible through cropmarks, such as those close to the north-west perimeter of **Inveresk I** (illus 150), could be the remains of ovens, as has been proposed for some of

the features visible just inside the ditches at **Inchtuthil** and **Glenlochar V**. Excavations have added further information with, for example, pits with evidence of burning recorded at **Edenwood** and **Lochlands III**, but dating evidence is frequently hard to come by. It is also worth noting that hardly any internal features were visible on the air photographs of **Kintore**, and the pits recorded there demonstrate little regularity. Excavations of crop-mark sites generally produce far more information than can be gleaned from the air photographic evidence alone, **Kintore** proving a case in point (see below); geophysical survey can also furnish additional data.

Pits are visible within numerous camps, eg scattered across the interior of **Ardoch IV** (illus 77) with no obvious consistency, and clustered in the north quadrant at **Lochlands III** (illus 167). At the latter site, excavations revealed charred wood, ashes and burnt earth within the pits. No dating evidence was obtained, but the excavators thought that they might be Roman in date (Maxwell & Wilson 1987: 39). **Stracathro** also exhibits a series of random pits in its eastern quadrant (illus 200). It is interesting to note that, at both **Lochlands** and **Stracathro**, the pits are clustered in a particular area and, if Roman in date, could indicate demarcation of a particular area of the camp for activities which required the excavation of pits (whether used as latrines, rubbish pits, cooking hollows and ovens, or concerned with the upkeep of horses and mules). However, the dating of the **Lochlands** pits are unconfirmed, and no excavations have taken place within the interior of the camp at **Stracathro**.

Excavations at **Carronbridge**, as well as locating the oven outside the camp, also revealed seven irregular post-holes (six almost in a line) just inside the entrance, each containing charred emmer wheat (Johnston 1994: 258). The purpose of these post-holes is unknown, but could have had a cooking function or been involved in a fence line which may have demarcated an area for winnowing or some other such function.

The dating of pits has been problematic. Radiocarbon dating often gives a wide range of possible dates, although it can be used to tie evidence down to the Roman period; artefacts recovered need to have secure contexts. While the timescale of occupation of camps may make some carbon-14 dating close to useless, unless enough has been carried out to enable Bayesian statistics, this, combined with other evidence, such as stratified artefacts, can aid in suggestions of contemporaneity and thus the analysis and interpretation of sites. One of the pits at **Kintore** yielded a Roman folded beaker dating to the late 3rd/early 4th

century AD, but excavators noted that the possibility remained that it was a late Iron Age deposition of a Roman import (Cook & Dunbar 2008: 132).

Excavated evidence from Kintore

Following extensive excavations at **Kintore**, some 180 bipartite features, interpreted as Roman field ovens (illus 51), are now known from the site, along with at least 60 rubbish pits and a plethora of non-Roman features (Shepherd 1987; Alexander 2000; Cook & Dunbar 2008; Cook *et al* forthcoming). The Roman ovens appear to be scattered throughout much of the interior of the camp, with little obvious formal organisation or symmetry. In the south-west corner, some ovens are tucked into the back of the rampart, lying some 7–8m from the ditch. At the south-west entrance, one lay just south of the ditch terminal on the same alignment (the relationship between the two could not be determined owing to a later pit); this oven produced one of the late assays from the site (Alexander 2000: 31). However, during excavations close to the south-east entrance in 2004, potential alignments in the lines of ovens were identified (Cook & Dunbar 2004: 86; Cook *in prep*). In this area, the ovens do not appear to start until some way within the camp ditch and lie in four slightly irregular lines.

At various places in the camp, some of the ovens appear to respect one another, others cut through one another, providing evidence for more than one phase of activity (or at least a period of repair and rebuild), although the time gap between the two cannot be ascertained. Some appear to be ‘double-ovens’, with two cooking ends sharing a single ash pit (Cook & Dunbar 2008: 134). There is also considerable variability in styles (stone- and cobble-lined and unlined cooking pits), orientation and size of the ovens, some of which no doubt reflect their location and survival patterns, but also intriguingly possibly indicate different units and the different backgrounds of serving soldiers (Jones 2009a). In addition, as with the camp at Bromfield in Shropshire (Hughes *et al* 1995), some of the ovens demonstrated evidence for more than one firing. Indeed, one produced evidence for up to five firings (Cook & Dunbar 2008: 136). The time delay between firings is unknown, but is likely to have ranged between daily and weekly, suggesting occupation of the camp between five days and five weeks. This is on the assumption that the ash pit was not cleaned out; but if it had been, then this would be a minimum time period for camp occupation. A 7th-century military treatise of Leo VI refers to the need for the army to keep moving regularly for reasons of health (quoted in Toynbee 1973, 308), but presumably if certain

levels of sanitation could be met, the forces could have stayed in one place for more than two or three nights.

One of the ovens at **Kintore** had burnt alder *in situ*, and many of the other ovens had charcoal fragments from oak, hazel, ash, elm and birch. This could suggest the difference between timber for oven construction and fuel for burning. Some of the wood may have come from the burning of any disused wooden structures or artefacts carried by the army (eg ash and elm) as well as local timber supplies. Heather found in the ovens may have indicated part of the roofing structure of the oven, or equally the use of turf as fuel. (During a winter campaign in Gaul, Caesar referred to his troops constructing and thatching shelters over the tents (*de Bello Gallico* VIII.5). While it is possible that turf could have been used as a thatch, it seems unlikely that structures were built at Kintore that have escaped detection through the extensive excavations undertaken.) Dung may also have been used as a fuel in the ovens (Cook & Dunbar 2008: 360). Again, the use of different fuels could indicate preferences between separate units, although the use of wood (of the various species) as a fuel was predominant.

There are excavated areas within the camp seemingly devoid of ovens. While the usual warnings regarding ‘absence of evidence’ are noted, it is possible that these gaps represent genuine absence, and that they could reflect areas of the camp zoned for activities other than tented settlement for troops (if it is reasonably assumed that the ovens were sited close to where the soldiers were housed), or that the housing of the men in this area left little archaeological trace. They could also reflect areas for storage, animals, or perhaps the position of the headquarters and officers’ accommodation.

The pits at **Kintore** appear to be randomly scattered throughout the camp. While fewer are known than ovens, it is possible that some of the undated pits recorded through excavations may be Roman in date, and that other pits, particularly some of those with Neolithic dates, may have been contaminated in the process of cutting through earlier horizons. Those Roman pits that have been examined for ecofactual data do not furnish further evidence, suggesting that they had been used as latrines, but the free-draining soils on site mean that faecal parasites may not have survived. These were interpreted as probably containing general waste products, including food debris and general refuse, with some charred plant remains found within the pits, interpreted as indicating possible crop processing on site. This appears to have been a cleaned crop, with the grain becoming charred through drying or food processing. There was also an absence of grain from

the ovens, suggesting that large-scale processing of whole grain was not being undertaken; it is suggested that a meal or flour-based product was being cooked (Holden *et al* 2008: 268–71).

The majority of the ovens at **Kintore** are assumed to have been constructed for the purpose of baking bread. However, some of the ovens produced a small amount of material associated with metalworking, although some of the slag may have been redeposited (Heald 2008: 209). Certainly the army would have had to make ongoing repairs and carry out routine maintenance on their equipment, particularly when located some distance from a permanent fort, so evidence for metalworking should not be wholly unexpected. It is also worth noting the presence of carbonised wooden bowls in the artefact assemblage, confirming that the army carried wooden vessels alongside metal and pottery on campaign (Crone 2008: 238–9). A few of the pits and ovens contained metal finds comprising tools, fittings and fastenings, nails, hobnails and other fragments. Many of these objects were iron bindings such as staples, fasteners, linch pins, and binding strips ripped off wooden objects, such as storage chests, with the wood presumably being salvaged for other purposes such



Illustration 54

Aerial view of Glenlochar V with some of the internal pits visible. Taken from the south-west in 1984. © Crown copyright: RCAHMS. SC1164051. Licensors www.rcahms.gov.uk.



Illustration 53

Aerial view of Dalginross showing some of the lines of pits in its interior, taken from the south-west in 1996. © Crown copyright: RCAHMS. SC1164173. Licensors www.rcahms.gov.uk.

as fuel (noted above). Other objects included the remnants of a metal scythe, potentially indicating the gathering of fodder for horses, also possibly indicated by the presence of a tethering peg (Hunter & Heald 2008: 194).

Samples from **Kintore** have been subject to an extensive radiocarbon dating programme. As might be expected, the majority of the dates simply bracket the period from the 1st to the 3rd century AD, but do appear to cluster in the late 1st/early 2nd century AD (Cook & Dunbar 2008: 32–3), although there are also some late assays. As revealed by the internal structures – ovens and pits – and the find of a possible 3rd-century axehead from one of the ovens (Hunter & Heald 2008: 192) and a late Roman folded beaker from a pit (3rd to 4th century AD – Wallace 2008: 189), the camp at **Kintore** may have been used on numerous occasions over a considerable period of time, although sections through the perimeter ditch have revealed no evidence of any reconstruction or refurbishment.

At **Kintore**, a four-post structure was excavated, which was argued to be a Roman watchtower overlooking a gap in the perimeter ditch for a palaeochannel, but there was no supporting dating evidence (Cook & Dunbar 2008: 350–1). This would be the first structure of its kind found

within a temporary camp, but given the presence of Iron Age four-post structures on the site, the identification of a solitary example as Roman on the evidence of square post-holes is unproven.

Aerial and geophysical evidence

Three camps have shown clear evidence of internal features, presumed to be contemporary with the occupation of the camp, from aerial photographs: **Dalginross I** (illus 53 & 109), **Glenlochar V** (illus 54 & 137) and the two-phase 'labour camp' at **Inchtuthil** (II and III) (illus 52 & 145). A fourth, **Dalswinton Bankfoot I**, has revealed numerous internal features, probably ovens, as a result of geophysical survey in 2009 (Hüssen *et al* 2009a). All four lie a short distance from a Roman fort: **Dalginross** close to a Flavian fort (Robertson 1964b), possibly with an Antonine occupation (Woolliscroft 2002c); **Glenlochar** close to a fort which demonstrated evidence on excavation for both Flavian and Antonine occupation (Richmond & St Joseph 1953) and is surrounded by a cluster of temporary camps; **Inchtuthil**, outside the uncompleted Flavian legionary fortress (Pitts & St Joseph 1985); and **Dalswinton** encloses a site presumed to have been a fort but now reclassified as a more temporary structure (St Joseph 1973: 217; Hüssen *et al* 2009a) and close to the Flavian fort at Dalswinton Bankhead (Richmond & St Joseph 1957).

Both the **Dalginross** and **Inchtuthil** camps have been tentatively proposed as 'seasonal bases', mainly owing to the significant amount of evidence for internal occupation revealed on the aerial photographs (Maxwell 1982a: 113), but **Kintore** has demonstrated that significant features can be located within camps which are not revealed on air photographs. It is, of course, likely that some of the 'pits' visible in the interior of these camps are not contemporary, and could represent prehistoric features or even later tree roots. Certainly, at **Glenlochar** there are a couple of ring-ditches of unknown function and date. If a line is drawn between the presumed *porta praetoria* and *porta decumana* in the three camps (**Dalginross I**, **Glenlochar V** and **Inchtuthil II-III**), however, the area through which this line runs is remarkably devoid of pits, reinforcing the interpretation of their contemporaneity with the camp occupation (it is too early to say whether the same is true of **Dalswinton Bankfoot I**).

All four sites have a mixture of pits visible close to the perimeter, as can be seen elsewhere (eg **Inveresk I** – illus 150). Such pits are usually interpreted as ovens, owing to the frequency with which ovens are found in the *intervallum* area within Roman forts (eg at the Inchtuthil

fortress, ovens were located at the back of the rampart (Pitts & St Joseph 1985: 197)). Certainly, clear perimeter lines can be discerned at **Glenlochar**, **Inchtuthil** and **Dalswinton**, less so at **Dalginross**. These lie, on average, at least 6m within the ditch, thereby allowing sufficient space for berm and rampart.

The significance of the rows of pits within **Inchtuthil II-III** has been discussed at length by Maxwell (1982a) and Frere (1985c). There is little more to add without further excavation and/or geophysical survey taking place. Their interpretations of the double lines of pits as potential streets between groups of tents seems likely, and both have observed that the longest 'street', in the south-west part of camp II is close to the 720 Roman feet (213m) that Hyginus has allocated to a cohort (*de munitionibus castrorum* 2). Nine pits in one of these double rows were excavated. These were U-shaped and contained a small amount of pottery and probable sheep-ribs, thereby strongly indicating that they were rubbish pits. If two cohorts camped back to back, then the distance between these double rows is insufficient to represent space for tents but must signify the roadway between such cohorts (Frere 1985c: 232). It is also worth reiterating that the presence of the rows in the south-west part of the camp indicates its phasing – two rows ignore the reducing line for the second phase of the camp and are, therefore, presumably earlier, going with the primary occupation of the camp, whereas two respect this and are probably, therefore, contemporary with its later occupation.

At **Dalginross**, two parallel lines of pits are noted in the northern part of the camp, but these are different to the parallel lines at **Inchtuthil**, being significantly shorter and wider. Their length corresponds approximately to the twenty tents of two Roman centuries camping alongside one another (adapting measurements from Hyginus); the presence of two rows could indicate four centuries camped within this segment of the camp. Farther south within the camp lies a further line of similar length, which could again represent the tents of two centuries camped side by side. Other pits within the camp occur in small groups, presumably indicating clusters of activity, whether representing areas where troops were stationed or rubbish pits for other disposal activity, perhaps relating to the quartering of animals.

Glenlochar, by contrast, exhibits less regularity than its counterparts, although various lines and groups of pits can be discerned. It is also interesting to note that **Glenlochar V** is the only camp of the three to possess an annexe (which exhibits an internal partition), but there is minimal evidence for internal structures within the annexe,

reinforcing the suggestion that it was used for different activities than those conducted within the camp itself. At **Dalswinton** there is also limited regularity in the pits within the camp, recorded through the recent geophysical survey, excepting the line of probable ovens which have been located running inside the western perimeter of the camp.

Goldsworthy commented that, ‘marching camps are rarely excavated in an intensive way, since if the army only stopped there for a night or two it is unlikely that they would have left much trace’ (2003: 171). Assumptions that Roman camps will contain little contemporary evidence for the Roman occupation of the site has led to little interest in their interiors, but this can now be challenged by the body of data being collected through remote sensing techniques and excavation. **Kintore** is an example of what can be found in the interior, on a site that gave little indication of internal features on air photographs but a wealth of information on excavation. We can only mourn the lost interiors of camps (such as **Hillside Dunblane**, **East Carmuir**, **Garnhall I**, all now under housing; and **Lochlands III** under an industrial estate) which have not been subject to similar detailed analysis. It is, therefore, only possible to speculate whether **Kintore** is an unusual site, possibly housing the Roman army for longer than would usually be expected. While watching briefs and small-scale excavations in camp interiors frequently record no Roman features (eg **Innerleithen**, **Milnquarter**), a body of data is gradually being accumulated which indicates that the interiors of these sites are worthy of more detailed study.

7g Camp reuse in the Roman period

The propensity for the Roman army to reuse existing locations, including the same camp sites, is clearly evidenced from an analysis of their distribution (see 6 above). The major gathering grounds in northern Britain (**Ardoch**, **Castledykes**, **Dalswinton**, **Glenlochar**, **Lochlands** and **Newstead** – illus 21) all contain camps which either overlap in their use of space, reuse part of an earlier camp perimeter, or both. Despite Josephus’ assertion that ‘they fire the camp, which they can easily reconstruct if required, lest it might some day be useful to the enemy’ (*Bellum Iudaicum* III.90), this does not appear to have been standard practice in north Britain. Returning to a camp site and reusing part or all of the perimeter of a previous camp could represent an economy of effort, assuming that the ground occupied by the camp was not too foul from its previous occupation, ‘if a multitude of soldiers stays too long in autumn or summer in the same place, then



Illustration 55

Re-use of the perimeter of Oxtion I by Oxtion II, taken from the east in 1984. © Crown copyright: RCAHMS. SC1164040. Licensor www.rcahms.gov.uk.

drinking-water contaminated by pollution of the water-supply and air tainted by the foul smell itself give rise to a most deadly disease’ (Vegetius *Epitoma* III.2). Onasander gives a similar warning to avoid areas where disease might spread (*Στρατηγικός* VIII.2). This might explain some instances of camps being constructed alongside one another rather than reusing perimeters, such as at Walton I–III in Wales (Davies & Jones 2006: 139–41), and also Farnley I–III in England (Welfare & Swan 1995: 96), and some of the numerous examples of pairs or more of camps located next to each other. It is possible that the Walton examples were chronologically close, the arrival of consecutive troops affecting a concentration, or alternatively arriving too soon after the previous occupation to wish to use the area occupied by the preceding force (Davies & Jones 2002: 835).

Vegetius also informs us that ‘The camp should be built according to the number of soldiers and baggage-train, lest too great a multitude be crammed in a small area, or a small force in too large a space be compelled to be spread out more than is appropriate’ (*Epitoma* I.22). This would have had an effect on the size of the area to be reused (if an area was to be reused at all), although elsewhere the classical sources refer to commanders housing a small

number of troops in a large camp, or a large number of troops in a small camp, so as to confuse the enemy as to their true numbers (Frontinus *Strategemata* I.I.9).

North of Hadrian's Wall, a number of sites exhibit clear evidence for perimeter reuse (eg **Oxton** – illus 55 & 189). The majority of these camps are evidenced through aerial photography with only limited excavation. It is usually assumed that the smaller camp which uses some of the same sides as a larger one, will be the later of the two, as demonstrated through excavation at **Dullatur**. But, as a note of caution, the upstanding earthworks of the overlapping camps at Tomen y Mur East in Wales suggest that the smaller, inner camp (I) might be the earlier, its remains being slighter than camp II, which appears to overlie it on one side (Davies & Jones 2006: 122–4). The majority of the camps where part of the perimeter is reused are known only through cropmarks, and, therefore, excavation would be required to ascertain the relationships between the structures.

A key site for camp reuse in the Roman period is that at **Ardoch**, subject to several small excavations by St Joseph from 1969–78, plus further small-scale trenching (Hanson 1978a; Glendinning & Dunwell 2000). The camps here are located to the north of the multi-phase fort at **Ardoch**, with a second small possible fort lying to the east (**VI**, see illus 77). The Roman tower at Blackhill Wood clearly underlies camp I at **Ardoch**. This area was an important staging post in the Roman period, and is crucial for understanding the relationships between the various camps and their potential chronologies, which is important when attempting to assess some of the camp 'series'.

Five camps are now known on the plain north of the fort at **Ardoch** (illus 24 & 77). Excavations here, concentrating on camp intersections, appear to have established the following sequence: **Ardoch III** and **IV** may be earlier than camp II, which is earlier than camp I (demonstrated through the removal of stretches of camp II for the construction of camp I – St Joseph 1976: 17). **Ardoch V** is also earlier than camp I, which, as noted above, is later than the Flavian Gask Ridge tower in Blackhill Wood. St Joseph also reported that **Ardoch III** was earlier than IV (1970a: 167–9), but this cannot be confirmed because the interpretation was based on the supposedly differential ditch filling of camp III beneath the presumed line of the rampart of camp IV, rather than any stratigraphic relationship between the ditches. **Ardoch V** is wholly contained within the *Procestrium*, an earthwork enclosure, probably an annexe to the Roman forts. Its date is unknown, but as the latest occupation date



Illustration 56

Aerial view of Castlecraig I & II, taken from the north in 1992, showing the double *tituli* at one of the gates on the north-west side. A settlement enclosure lying within the camps is clearly visible in the centre of the image. © Crown copyright: RCAHMS. SC1164107. Licensor www.rcahms.gov.uk.

for the fort is Antonine, and on the assumption that this earthwork is an annexe, camp V is probably earlier than late Antonine because the *Procestrium* blocks all visibility from the camp. The earthwork appears to be overlain by camp I on its east side (although the relationship between the two at the western intersection is ambiguous due to later recutting of field boundaries). The implications of this for the dating of camps in northern Scotland will be discussed further in Chapter 10. **Ardoch** is one of several sites where camps intersect one another on different alignments, as well as those (III and IV) which reuse part of their neighbour's perimeter.

The camps at **Castlecraig** are also worthy of comment because the inner camp (II) shares the same entrance gap as the outer (I), but two *tituli* are clearly visible at this point (illus 56 & 100). The route of camp II east of this entrance is unknown, and the two may share sides at this point, which would mean a change of alignment at the gate of camp II.

Chew Green (Northumberland) is the only site in northern Britain where the intersecting camps survive in earthwork form, and it is possible to distinguish from field evidence that camp I is earlier than camp III (Welfare

& Swan 1995: 85–90), which was also confirmed by excavation (Richmond & Keeney 1937: 136). The most extreme example of an upstanding site with overlapping perimeters is Y Pigwn in Wales (illus 57), where the smaller camp is fitted into the earlier, larger camp at an oblique angle with only a slight overlap at the perimeter (Davies & Jones 2006: 95–8). At **Esbank**, where a similar oblique relationship can be observed in the cropmark record (illus 125), excavations demonstrated that camp II was later than I (Maxfield 1975). **Newstead** ‘great camps’ complex also reveals camps lying at oblique angles within one another, when surely reuse of the perimeter of earlier camps would present lesser effort (illus 183 & 184). This only appears to have been

clues as to chronology. The road alignment kinks when it reaches the eastern side of camp I, and the west side of that camp changes alignment as the road exits. This suggests a relationship between the road and the remains of the camp. It is possible that the camp is later than the Roman road, with the gates aligned on the existing road, but the kink on the east could also indicate that the modern road is avoiding an existing obstacle, such as the camp perimeter. No such relationship can be observed between the road and camp II, which suggests that camp I was either better preserved at the time of the construction of the Roman road, or that it was sighted to take advantage of the route of the road. Camp I could conceivably be later than camp II, which may have been partially

slighted for the construction of its larger neighbour, which subsequently remained the more dominant earthwork. Certainly, the cropmark record of the camps suggests that camp II had a slighter ditch than its neighbour. It is also almost square in form (with a slight change of alignment at the northern gate), and therefore fits into the camps for which a 1st century date has been proposed, although this reasoning is not infallible (see section 7c). The date of camp I cannot be easily allocated to a particular period without further work.

At a handful of sites in northern Britain, camps lie completely within the perimeter of larger examples. At Birdhope I, II and III (Northumberland), where III lies within II which itself lies within I, the perimeter of camp II is so well preserved that it is presumed to be the latest feature of the three

(Welfare & Swan 1995: 77–9). Unfortunately none of the examples farther north survives in earthwork form, but again it is usually assumed that the inner camp is the later of the two, potentially utilising the perimeter of the larger camp for extra protection. However, this situation may also present an area where troops could be trapped between open ground and the safety of the occupied camp, and it would more than double the required manpower to have troops manning two perimeters. If the outer camp were constructed later,

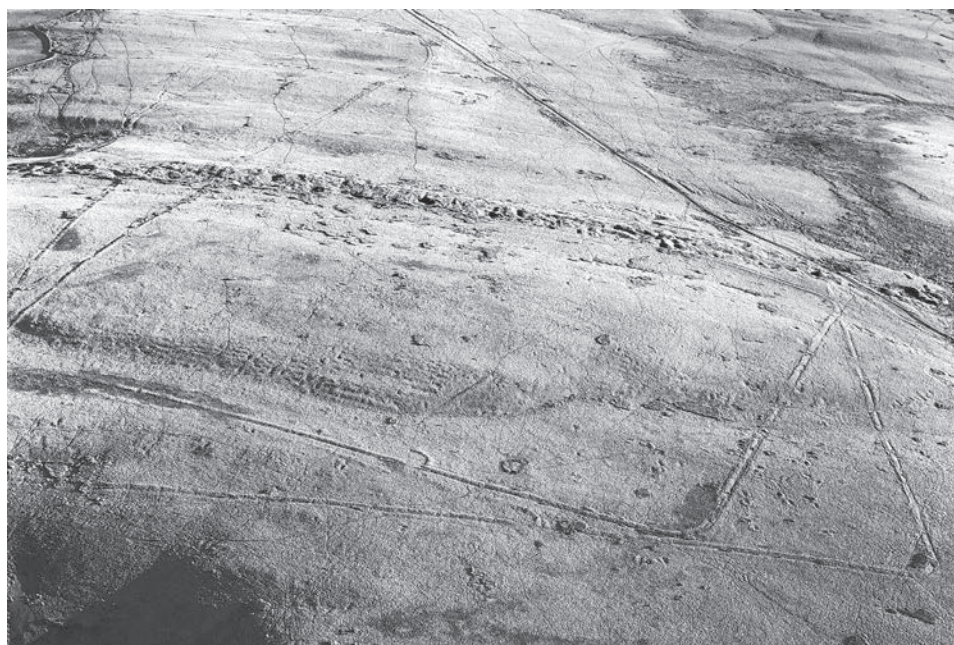


Illustration 57

Aerial view of the two superimposed camps at Y Pigwn, Wales, taken from the north-west in 1988. Copyright: Dyfed Archaeological Trust 88/51/32 DI2005_0327.

the case at one of the camps in this complex (camp III representing a reduced form of camp I). Elsewhere, excavations at **Ythan Wells** (illus 17 & 213), where there is a clear overlap between the two camps, confirmed that camp II was the earlier (St Joseph 1970a: 175–7). Unless the remains survive as earthworks, it is usually difficult to determine chronological relationships between camps without excavation. However, at **Bankhead Carnwath** (illus 82), the road running through the camp (following the route of the Roman road) may provide additional

presumably the rampart and ditch of the inner would be slighted, which was observed at Birdhope III.

Finally, in a few cases, a recut of the perimeter ditch has been observed during excavation, but no additional internal ditch can be seen in the cropmark record, potentially indicating that the entire perimeter was used, or that any reducing earthwork had little or no ditch that might be recovered through aerial survey. At **Dunning**, the excavators noted a reuse of the north entrance and a recutting on the west, although not on the accompanying *titulus* ditch (Dunwell & Keppie 1995). However, a linear cropmark is visible within the north-east corner of the camp and this may also represent reuse with the camp reduced in size (illus 118). At **Dalginross**, small-scale excavations on the east Stracathro-type gate recorded that it had been recut (Rogers 1993: 277–86). The cropmarks of the rest of the camp are so good that any additional reducing ditch should be visible, suggesting that perhaps the entire perimeter was reused (illus 53 & 109). Excavations at **Finavon** recorded a recut V-shaped ditch, although the excavators did not confidently ascribe a Roman date to the recut (Halpin 1992: 173–5, 178–9), and St Joseph also dug a series of trenches around the perimeter, at no point recording a recut (RCAHMS St Joseph Collection: Notebooks 3 & 4). In contrast, excavations on the camps at **Lochlands** frequently record recut ditches in the area around camp III, but it is not possible to say if any represent reuse of an entire perimeter rather than part of the camp because of the complexity of the cropmark remains (illus 167).

The evidence for reuse of entire perimeters is therefore slight, and primarily relies on the excavated evidence of recut ditches. However, at **Kintore**, the finds assemblage suggests more than one phase of occupation, but excavation of substantial areas of ditch produced no trace of a recut. The upstanding remains of some camps are still so good that one wonders to what extent a recutting of the ditch and/or refurbishment of the rampart would be required if the defences were left in good condition and the timescale between reoccupations relatively short. Perhaps only minor rampart repair and ditch cleaning would be required, in which case the reoccupation could be almost invisible archaeologically through field survey or small-scale excavation. Alternatively, if the recut ditch were larger than its predecessor, then the recut could remove all traces of the earlier ditch. But when two camps overlap, their relationship can usually be ascertained through detailed field survey on upstanding sites and through excavation of the intersections on cropmark sites. When one camp partially reuses the same perimeter of another,

it is more likely that the smaller of the two is the later (as is usually assumed), although further work is required and each site would have to be taken on its own merits given the vast range of sizes of camps (eg illus 47). These sizes are dependent on the scale of troop movements and the numbers of troops requiring to be housed, and if a larger force was in operation than that which previously occupied the camp, then it is assumed that a new camp would be built from scratch, as is evidenced by the number of camps which overlap but do not reuse part of the perimeter.

7h Survival and non-Roman reuse

The number of upstanding camps known across Britain demonstrates that not all were slighted on departure (as was suggested by some ancient authors such as Josephus; see section 7g above). While turves are occasionally recorded in the ditch fills of camps during excavations (eg **Dalginross I**: Rogers 1993), some may be the result of natural slippage rather than the deliberate forcing of the rampart into the ditch, and the remarkable state of preservation of camps at places like **Pennymuir** and **Raedykes** argues against attempts to deliberately destroy the remains. Departure from a camp may not always have been viewed as permanent, with the recutting of the ditch, presumably to reoccupy the site, attested on several occasions (eg **Dalginross I**, **Lochlands**, see section 7g). In addition, the existence of a camp in the landscape would have been testament to the might and power of the Roman army, and a reminder of such to the local population.

Cropmarks are frequently recorded within camp perimeters, but it is difficult to associate these with the occupation of the camp without further evidence. Exceptions include **Inchtuthil**, where the pits in the interior of camps II and III produced a small amount of Roman pottery (Frere 1985b: 230), **Dalginross I** and **Glenlochar V**, where the pits in the interior are similar to those at **Inchtuthil** and some regularity in the layout suggests contemporaneity (see section 7f above). Elsewhere, cropmarks and earthworks may indicate later use of the site. At Esgair Perfedd in Wales, a series of hollows have been dug into the inside of the upstanding rampart, and probably represent training exercises by the military in the 20th century (Davies & Jones 2006: 135). At other sites, the layout of the later landscape sometimes reflects the perimeter of the camp, with the ditch utilised as a field drain and the rampart as a field boundary. The utilisation of such monuments in the

relatively recent past again indicates their permanence in the landscape.

Information about contemporary settlement is difficult to ascertain, whether within the camp perimeter or in the immediate vicinity, owing to the difficulty in dating individual structures and the ephemeral nature of camp occupation. Nonetheless, souterrains are occasionally recorded within the perimeters of camps, for example, at **Battledykes, Oathlaw**, where one or two are recorded within the perimeter of the camp (see illus 29). The majority of excavated souterrains have suggested their abandonment in the 2nd century AD, and Armit has argued that their proliferation related to the supply of the Roman army and their demise to the departure of the military (1999: 592–4). In response, Hanson has pointed to the reuse of Roman masonry from forts in some souterrains (2004: 148), although these are in the southern examples and usually considered to be slightly later in date (Armit 1999: 588). The excavated souterrain at Shanzie, near Alyth, was not deliberately dismantled, and the excavators suggested that it could not be so specifically linked with the Roman occupation as proposed by Armit (Coleman & Hunter 2002: 97).

The date of the construction and use of the camp at **Battledykes, Oathlaw** is not known. Both Flavian and Severan dates have been proposed (St Joseph 1958: 93; 1973: 231–3), although a Severan date is generally preferred for this camp (see Chapter 9), so that the chronological relationship between the camp and souterrains can only be guessed at, with the construction of the souterrains pre- or post-dating the camp. The surviving perimeter of the camp does not appear to have played any part in the selection of the location for a souterrain and accompanying settlement. Souterrains in Angus and the Mearns range in date, but some have been dated to the 1st millennium BC (eg Dalladies in Kincardineshire just north of **Stracathro**, Watkins 1981a) and so it is likely, without any further evidence, that the souterrain and presumed accompanying settlement is earlier. In which case, it is possible that some souterrains, such as those inside **Battledykes, Oathlaw**, could represent an example of the Roman army clearing away a settlement which occupied suitable ground for their military encampment.

The fortlet and camp at **Inverquhar** are surrounded by cropmarks (illus 152), including probable ring-ditches presumably representing part of an Iron Age settlement (with a possible souterrain recorded through geophysical survey – Woolliscroft 2002b; 2005b: 229). However, chronologies and relationships are again difficult to establish. Woolliscroft has further noted the regular

juxtaposition between Roman temporary camps and ‘native communities’ represented by round-houses and souterrains in the vicinity of camps and forts, concentrating on the Gask Ridge and its environs, including **Cardean** and **Cargill** (2005b). However, examination of the remains recorded through aerial photography in the arable fields of eastern Scotland suggests considerable exploitation of the land over several millennia, and little more can be argued about chronological relationships without more secure dating evidence, as is beginning to be provided by the recent excavations at **Kintore**. Here, there is a gap in the settlement record from the later prehistoric until the early-historic period, with the exception of a round-house which lay outside the perimeter of the camp (Cook & Dunbar 2004: 87). It has been argued that this indicated that there was a deliberate avoidance of the area occupied by the camp, possibly following negotiations between the Roman army and the local tribes (S P Halliday pers comm), though other interpretations are possible. This camp certainly survived in earthwork form until the 19th century (Watt 1865; Courtney 1870).

Hanson comments on the limited impact that the Roman army appears to have had on the Iron Age population (2004: 157), and certainly the camps themselves furnish us with sparse information. This is unsurprising owing to their transient use, and it is only large-scale excavations (such as those at **Kintore**) that are likely to help to build up the picture. Recent research on tribal boundaries in the north of Scotland has looked at the possible continuity of these from Iron Age territories to Pictish provinces (Maxwell 2004), and the way in which some medieval parish boundaries coincide with the find spots of Pictish stones and cemeteries (Fraser & Halliday 2007: 135). These could represent earlier settlement boundaries and the general geo-political landscape (S P Halliday pers comm). This continuity from prehistoric to early medieval periods reinforces suggestions that the Roman presence had a limited impact on the existing settlement remains. Presumably, if the land contained within a camp was suitable for habitation or other purpose, then it would have been utilised, unless there was very limited pressure on the land, or it was, indeed, seen as belonging to the Romans, perhaps following treaty negotiations, or was in some way ‘tainted’ by virtue of its association with the Roman army. Frontinus recorded that Domitian compensated farmers in Germany for the loss of their crops when their lands was taken over for fortifications (*Strategemata* II.XI.7). It is possible that the ground inside the camp at **Kintore** was seen to be owned or was otherwise ‘unsuitable’ in some way until the early historic period; certainly there

is little or no evidence for occupation within the camp for several centuries after it was built. Whether or not the ground contained within the camp was deemed 'Imperial territory' and had been effectively purchased from the local tribes is not currently possible to ascertain.

Evidence of overlapping settlement, potentially dating to the pre- and post-Roman Iron Age, can be noted at some sites, with the relationships between the features clearly demonstrable on occasion. At **Burnswark**, a scooped settlement partly overlies the south-west side of the South camp, and round-house platforms overlie and cut into an alleged Roman fortlet in its north corner (RCAHMS 1997: 181–2). The round-houses appear to have partly utilised the perimeter of this small fortlet (illus 58). All are later in date and post-date the Roman occupation of the site, although the classification of this rectangular enclosure as a fortlet has recently been questioned (H Welfare & S P Halliday pers comm). However, elsewhere it is not possible to establish the relationship between probable Iron Age settlement and Roman camp occupation without excavation. Even then, unless an actual stratigraphic relationship can be observed, the chronology may still not be understood. At **Lamington**, a small enclosure, probably an Iron Age fort or settlement, overlaps the perimeter of the camp (illus 163). The relationship between the two is unknown and has not been tested, although there are a number of similar lowland enclosures in Lanarkshire (RCAHMS 1978a: 144–58), and it is quite possible that the camp cut through the perimeter defences of an earlier settlement.

At **Wooden Home Farm**, a similar double-ditched enclosure lies immediately east of the north-east side overlooking the Mellendean Burn (illus 211). On this occasion, the camp just avoids the ditch of the nearby

settlement, so chronological relationships can only be conjectured. Camp perimeters only rarely seem to respect existing sites rather than demolish or ignore them in their construction. **Dalginross I** incorporates some standing

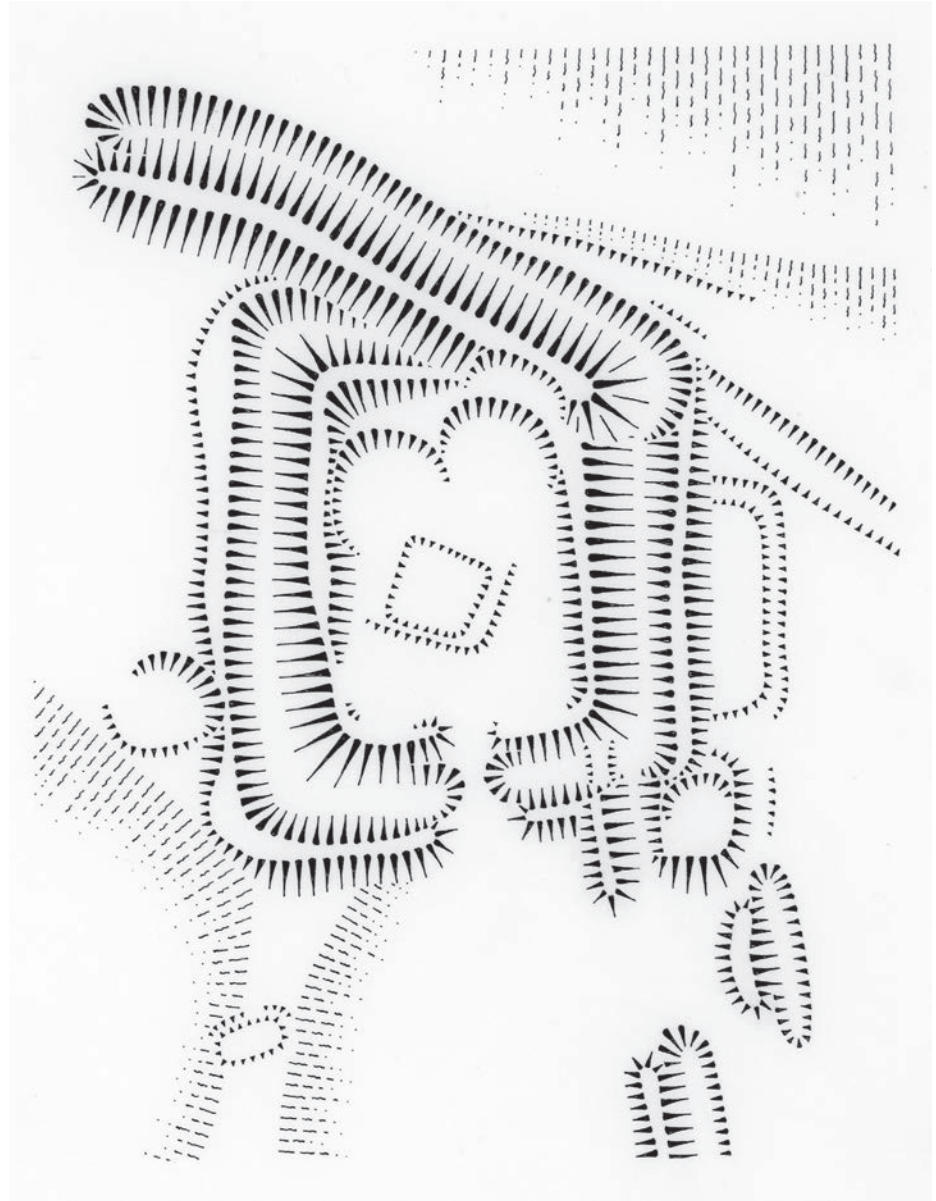


Illustration 58

Plan of the settlement overlying the presumed fortlet in the corner of the south camp at Burnswark, drawn by RCAHMS during a survey of the site in 1996. © Crown copyright: RCAHMS. DP077624. Licensor www.rcahms.gov.uk.

stones within its perimeter, possibly the remnants of a stone circle (illus 109). It is curious that these stones with cup-markings were apparently left standing, unless they were re-erected after the departure of the Roman army.

One interesting cropmark example of respect for earlier features that can be observed is at Llanfor in Wales, where the camp perimeter kinks to avoid a probable round barrow, though this was subsequently ignored and possibly obliterated when a Roman 'stores compound' or polygonal enclosure was later constructed, wholly incorporating it within the defences (Davies & Jones 2006: 120–2).

The camp north of the fort at **Castledykes (II)** is one of the few examples of the physical residues of the site clearly being utilised by later settlement, probably in the



Illustration 59

Aerial view of Castledykes II with its overlapping field system (and part of camp I including a gate visible to top left), taken from the south-east in 1984. © Crown copyright: RCAHMS. SC1164046. Licensor www.rcahms.gov.uk.

early historic/early medieval period. Here, a field system is visible in the cropmark record, with linear cropmarks, pits, and sunken features reminiscent of *grübenhäuser* (illus 59 & 101). While this field system overlaps several of the camps in the area, part of it, including what appears to be a trackway, utilised the entrance of **Castledykes II**. Thus a chronology can be established in this part of the field system which is therefore proposed as later in date (although it is possible, but unlikely, that the camp entrance was located at a convenient spot – the site of a trackway that already existed).

Short stretches of upstanding camp perimeter occasionally survive owing to their reuse in the later landscape, but only on a single occasion in Scotland, at **Steeds Stalls, Gourdie**, do internal features survive as upstanding remains. However, it is clear from the aerial photographic evidence that at least a further six 'stalls' have had their surface traces removed and are only visible as cropmarks, along with the perimeter ditch of the camp (illus 50 & 198). An examination of the maps made by Roy and other antiquarians compared to the modern record indicates how many camps have had

their surface traces obliterated by predominantly agricultural land-use in the intervening centuries. Of the camps recorded by antiquarians prior to the 20th century, over 30% are now known exclusively through cropmark remains (eg **Ward Law**), others being rediscovered through aerial survey, such as **Carlops Spittal, Invergowrie** and **Dalginross**. Sites such as **Pennymuir** in the Scottish Borders and numerous camps in Northumberland have survived through being sited on marginal land and moorland areas later considered suitable only for rough grazing. Other sites, such as **Raedykes**, have been under pasture for prolonged periods and the remains have only been slighted by the plough in a few places.

On quite a few sites where parts of the camp perimeter survived owing to the conditions identified above, more recent plantations and managed woodland regimes have continued to preserve the upstanding remains. While forestry ploughing and tree plantation inevitably cause damage to the monuments, they have provided protection from the ravages of ploughing and other modern agricultural developments. Examples include stretches of the camps at **Ardoch I, Cleghorn, Edenwood, Gilnockie, Grassy Walls, Innerpeffray East, Kair House** and **Kirkbuddo**, which all survive in plantations. At **Balmakewan** and **Cardean**, parts of the perimeter ditch appear to survive as forestry drainage ditches, although they have been significantly damaged by such use.



Illustration 60

Aerial view of the former plantation bank earthwork thereby preserving the north corner of North Slipperfield, taken from the north-east in 1996. © Crown copyright: RCAHMS. SC624670. Licensors www.rcahms.gov.uk.

Unsurprisingly, in arable areas, ditches have often been reused as drainage ditches, and in the case of the camp at **Cardean** it is not clear which of the two most prominent ditches visible as cropmarks east of Crow Wood represents the continuation of the south side of the camp and which are later drains (illus 94). At **Battledykes, Oathlaw**, the south side of the camp is partially visible as a cropmark, the remainder of the side recorded as a drain accompanying a field boundary (illus 84). Many camp perimeters have been utilised as field boundaries, which has preserved them to some extent when the rest of the area has been ploughed. Examples include **Ythan Wells I**, where part of the south-west and south-east sides survive under hedgerows (illus 213), and **Beattock Barnhill II**, where a drystone wall marks the northern perimeter of the camp (illus 85). Confirmation that this wall represents the north defences is provided by the presence of a cropmark *titulus* just north of the boundary and through excavation (Neighbour *et al* 1994). Indeed, a slight depression running to the north of this field wall marks the position of the ditch. Other stretches of camp defences preserved either under or in the outline of field boundaries include **Torwood, Channelkirk**

and **Dalginross I**. At the latter site a collapsed field wall covered the eroded remains of what may have been the external *clavicula* bank of the Stracathro-type gate on the east side (Rogers 1993: 280–1).

Elsewhere, earthen banks enclosing plantations have utilised parts of earlier camp defences. At **North Slipperfield**, a relict plantation bank sits on top of the extremely denuded remains of the north corner and stretches of the adjacent sides (illus 60 & 186), and at **Battledykes, Oathlaw** the north side of the camp is at the edge of a plantation. The north defences of the camp at **Normandykes** lie under a stone wall for the west part of that side, and the east sector appears to be accentuated by a plantation bank and ditch (illus 185). At **Millside Wood II**, parts of two sides with a rounded corner appear demarcated by a plantation (illus 177).

Modern road layouts appear also to have been affected on occasion, but it is more common for these to have been influenced by the Roman roads which are sometimes located not far from the camps. At **Dullatur**, the local road kinks on entry to the camp, possibly marking the position of an entrance (illus 116). This is reinforced by the suggestion that the layout of the village indicates the position of



Illustration 61

Aerial view of Muirhouses and other cropmarks in the vicinity, taken from the south-west in 1996, showing the road bending around the south side of the camp. © Crown copyright: RCAHMS. SC624718. Licensors www.rcahms.gov.uk.

the perimeter of the camp (Lowe & Moloney 2000). Elsewhere, roads either appear to mark the perimeter, as in the presumed southern part of the east side at **Dunning** (illus 118) and the south-west side of **Kaimhouse Lodge** (illus 153), or seem to bend to avoid the defences, as seen on the south side of **Muirhouses** (illus 61). At **Pathhead**, the A68 bends slightly at the point at which the east part of the north side of camp III approaches the road (illus 190). No continuation of the cropmark east of the road is recorded, and it is possible that the road changes slightly in alignment to avoid an existing obstacle, such as the corner of the Roman camp. However, the danger in assuming that the routes of more modern roads reflect the locations of the defences is illustrated by the camp at **Kirkhouse**, where excavation recorded the ditch beyond the modern road, which was thought to be on the line of the Roman road (illus 161). If this is the Roman road route, then the excavators suggested that the camp pre-dated the road which subsequently traversed it (Maxwell & Wilson 1987: 33). At **Kirkpatrick-Fleming** the excavators recorded a stretch of the probable Roman road and further observed a snow line, suggesting that the larger of the two camps (I) may have been deliberately sited on the pre-existing road (Leslie 1991: 18) (illus 162).

Thus the surviving elements of temporary camps, usually the perimeters, have played a part in shaping the later landscape. That various earlier and later structures have been recorded in the interior is hardly surprising given the large area occupied by some of the camps. However, the significance of these camps and their attribution to the armies that traversed Scotland can sometimes be noted etymologically, indicating a potential local memory, which can also be preserved in myth and folklore. No doubt, in the 18th century, General Melville was attracted to visit and discover/recognise at least two of Strathmore camps

owing to their local names: **Battledykes**, **Oathlaw** and **Black Dykes** or **Wardykes** (**Keithock**). Similarly, **Lintrose** was also known as Campmuir. Other camps were known through etymology as military structures, but attributed to the Danish army, such as **Normandykes**, believed to date to the time of William the Conqueror (Sinclair 1795b: xvi, 380–1) and **Kirkbuddo**, originally recorded as Norway Dikes (Gordon 1726: 33, 154). Temporary camps played a lesser role in defining the later landscape than more dominant Roman features, such as Roman roads, which cover a wider area, lasted for longer, and were probably still utilised as roads for a considerable period after the departure of the Roman army. Many stretches of these can still be detected across southern parts of Scotland, often surviving in the lines of hedgerows and modern roads.

The current evidence from upstanding and cropmark sites demonstrates that camps stood, and in some areas still stand, in an evolving landscape, being utilised for a wide range of later enclosures and boundaries, including fields and plantations, with some roads changing alignment to avoid their perimeters. The decision to slight a camp on departure does not appear to have been the normal procedure in the Roman army, hence some of the substantial monuments that survive today. Whether then camps were considered to be tainted ground or regarded as Roman territory through local folklore or some form of treaty negotiation is unclear. Although the significant gap in settlement evidence from **Kintore** following large-scale excavations is noteworthy, the existence of settlement elsewhere (such as **Burnswark**) suggests that this was not the case at all sites. While leaving such structures in the landscape could provide defensive enclosures to be exploited by the local population, undoubtedly their remains were testament to the might and power of the Roman army, in the same way that the remains are today.

CHAPTER 8

Historical context

The construction and use of temporary camps in northern Britain must fit into a historical framework of the conquest and occupation of the area, which can be partially identified through the literary texts and detailed examination of the archaeological remains of Roman structures such as forts and fortresses. The exact timing of the first intervention of the Roman army into Scotland is unknown, but dates to the second half of the 1st century AD (see Breeze *et al* 2009). Followers of the historian Tacitus' biography of his father-in-law, Agricola, would credit most of the early campaigns in Scotland to that governor (*c* AD 77–83), but the archaeology paints a more complex picture (Hanson 1991; Hoffmann 2004) (see above, Chapter 2.1). In his seventh and final season, Tacitus stated that Agricola defeated the Caledonian troops at the battle of Mons Graupius (*Agricola* 29ff). The site of this battle has not been identified, but numerous locations have been put forward with differing degrees of credibility, ranging geographically from **Ardoch** to the Pass of Grange and even Culloden (Maxwell 1990). Following this subjugation of the Caledonian tribes, Tacitus reports bitterly that Britain, having been conquered, was immediately thrown away (*Historiae* I.2), as the northern part of the province was abandoned shortly afterwards.

The survival of this literary biography of one of the Governors of Britain has led to a tendency for the archaeology of the province to be made to fit into the chronology presented by Tacitus. However, further archaeological evidence is available that suggests a more complex picture than that portrayed by the literary tradition. Dendrochronological dating of timbers from Carlisle has demonstrated that an early fort there predates Agricola, and was established in the period of the Governor Petillius Cerealis (AD 71–4) in *c* AD 72 (Frere 1990: 320; Caruana 1992: 101–3). This confirmed earlier suggestions of pre-Agricolan occupation of Carlisle (based on the samian pottery: Bushe-Fox 1913: 299–301, 311). Statius' poem to the son of Vettius Bolanus (governor of Britain

in AD 69–71) referring to activities in Caledonia was noted earlier (section 2.1). Although the presence of Cerealis in Carlisle would support the notion that the Romans were operating in south-west Scotland in this period, there is currently no secure archaeological evidence to suggest that he or his predecessors were campaigning or building forts significantly further north. Furthermore, there is also no strong evidence to support early fort building by the Romans along the line of Dere Street (Hanson 2009).

North of the Forth–Clyde isthmus, two structural phases have been recorded on some of the towers on the Gask Ridge (Woolliscroft 2002a: 7; Glendinning & Dunwell 2000: 273–6), and at the fort at Cardean in Angus (Hoffmann forthcoming), though the evidence is disputed (Hanson 2009: 52–6). The towers had previously been thought to have been in use for a short period of time, either as part of the halt on the isthmus in Agricola's fourth campaign (Hanson 1991: 7) or possibly constructed after the evacuation of the fortress at Inchtuthil in AD 86–7 (Pitts & St Joseph 1985: 279). They are usually considered to have been abandoned *c* AD 90 with the remainder of the sites north of the Forth–Clyde isthmus, on the evidence of the Samian ware (Hartley 1972: 13), or slightly earlier on the evidence of the coins (Hobley 1989). The new evidence could indicate a longer period of occupation in the 1st century AD than had previously been considered, or that these structures were subject to more frequent changes than had previously been supposed, as suggested for the fort at Elginhaugh (Hanson 2007). Recently, it has been proposed that the Gask towers and road functioned as a fortified supply line during the conquest and occupation of the north (Dobat 2009).

The evidence for the Flavian occupation of Scotland is, therefore, complex. Tacitus provides a precise chronology for Agricola, but much depends on modern archaeological and historical interpretations and assumptions. Some of the 1st century AD military remains in Scotland date from Agricola's predecessors as well as to the period after Agricola's recall from Britain.

Changes of policy in Rome and pressures elsewhere in the Empire saw the abandonment of Scotland by c AD 105, the construction of Hadrian's Wall across the Tyne–Solway isthmus in the AD 120s and a period of relative quiet until the Antonine advance under Lollius Urbicus, Governor of Britain in c AD 139. The Emperor Antoninus Pius, Hadrian's successor, ordered the reconquest of lowland Scotland and the construction of a new frontier work, the Antonine Wall, across the Forth–Clyde isthmus. This frontier was provided with a series of outposts stretching up to Bertha near Perth. While there were undoubtedly also campaigns beyond the frontier, archaeology has not yet furnished us with any evidence to suggest how far north campaigning might have reached beyond the Tay.

By the early AD 160s, most Roman forces had once more left Scottish soil and returned to the line of Hadrian's Wall. It has recently been suggested that there was trouble in south-west Scotland in the AD 150s which may have hastened the Roman retreat southwards (Hodgson 2009). Classical texts suggest a level of unrest in Britain in the 170s, culminating in the crossing of a Wall (it is not stated which one but generally assumed to be Hadrian's) and the killing of a general, resulting in campaigns by Ulpius Marcellus in the early 180s (Cassius Dio LXXII.8); furthermore, an inscription found at Carpow on the Tay has been identified as possibly dating to the reign of the Emperor Commodus (AD 180–92) (RIB 3512: Tomlin, Wright & Hassall 2009: 458–62). It is also reported that further trouble in the late 190s forced Virius Lupus to buy off the northern tribes for a large sum (Cassius Dio LXXV.5.4). The next major recorded advance came with the Severan reconquest, under the personal supervision of the Emperor Septimius Severus and his sons in AD 208–

11, partially recorded by the historians Cassius Dio and Herodian. Severus apparently campaigned to the furthest point of the island (Cassius Dio LXXVI.13), but any victory was not consolidated because, following the death of Severus in York in AD 211, his son Caracalla abandoned the northern conquests and returned to Rome.

In addition to the three main recorded conquest phases in Scotland, other literary sources also note campaigns by Constantius Chlorus into the territory of the 'Picts' in AD 305 (*Pan. Lat. Vet.* vi (vii) 7, 1–2), that there was again trouble with the Picts in the AD 360s (Ammianus Marcellinus XX.1), and possible Pictish wars in the AD 390s (Miller 1975). Constans came over to Britain in AD 342–3 and it was possible that he came to deal with something on the northern frontier (Libanus *Oration* 59.139,141). However, the majority of camps north of the Forth–Clyde isthmus are assumed to relate either to the campaigns of Agricola or Severus, because these are the main attested incursions into this territory of which we are aware and have generally been viewed as those that were most likely to have left archaeological evidence. Apart from an attempt to fit some of the southern Scottish camps into the Antonine conquest (Hanson & Maxwell 1986: 64–8) and the suggested association of the largest recorded camps with Severus (St Joseph 1969: 118–9), there has been little consideration of the historical context of the more southerly camps. Here, the situation must have been more complex, given the greater number of occasions when troops would have passed through the area, and the likelihood is that the literary sources will only ever provide snapshots of biased information for what was surely a complex and fluid political and military situation in northern Britain.

CHAPTER 9

‘Series’ of camps

Northern Britain exhibits a large number of temporary camps with a wide variety of sizes (table 4). The range of sizes and the similarities between many of the camps led St Joseph to postulate several specific series of campaign or marching camps, focusing on northern Scotland, where the probable historical contexts were more limited. These were based on the similar sizes, morphological characteristics and consistent spacing (interpreted as regular marching distances) between sites; one series (Stracathro-type) being defined solely by gate type. His thoughts were published in a series of papers (1958: 93; 1969: 113–19; 1973: 228–33; 1977: 143–4).

Stracathro-type camps

This group, so called because of their distinctive gate type recognised by St Joseph at the eponymous site of **Stracathro** (discovered in 1955), but in fact first recorded by Roy at **Dalginross** in 1755 (1793: 63–4, Pl. XI), was first proposed by St Joseph in 1958 and subsequently enlarged as more examples of this gate-type became known. By 1973, some seven examples were known (1973: 228) and

indeed some eighteen camps have now been identified as probably exhibiting this distinctive form of gateway of external *clavicula* and oblique traverse (illus 40e & 42; Jones 2009c; and see above, section 7b). That they form a rather different group to the other ‘series’ was acknowledged by St Joseph himself, who recognised that their differing overall size meant that they were not the product of a single campaign (1973: 229).

30-acre series (12ha)

This series was identified by St Joseph in 1969 (114) and comprised a group whose broad characteristic, apart from their size, was four gates defended by *tituli*. St Joseph originally recorded some seven camps in this group, though later removed the camp at **Inveresk** (which is at least 40 acres). However, in his original group he also included the putative camps at **Bellie**, **Bonnytown** and **Cardean II**, the smaller camp at **Dornock** (some 23.4 acres – 9.45ha), and the larger camp at **Finavon** (39.5 acres – 16ha). Therefore this group does not hang together as originally constituted (also observed by Hanson 1978a:

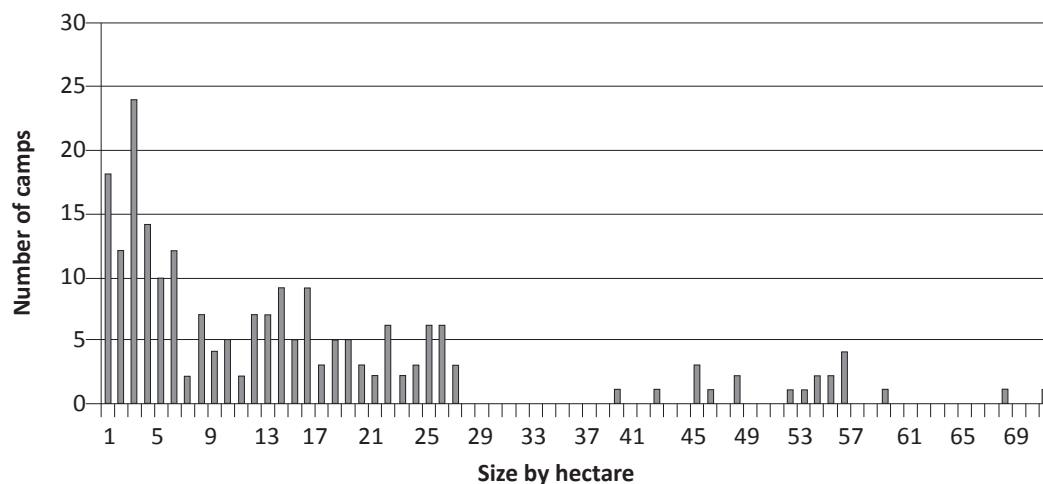


Table 4

The number of camps by hectare recorded north of Hadrian's Wall.

144; Maxwell & Wilson 1987: 35–6), although there are around 20 camps now recorded in the general size range of 11–13.5ha (27–33 acres). A glance at table 4 demonstrates the considerable number of camps recorded between 10–18ha (c 25–45 acres) and, while this general size range was clearly frequently used to house armies on the march, the so-called ‘30-acre’ series as first proposed by St Joseph does not cohere.

63-acre series (25ha)

The camps in the ‘63-acre’ series form the most homogeneous group (illus 62). St Joseph identified some nineteen camps within it, although his original listing included four for which the size is unconfirmed (**Castlecraig I**, **Eskbank I**, **Carpow** and **Lunanhead** (1973, 230)). A further camp at **Edenwood**, discovered in 1978, has been added. There are distinct morphological similarities between the camps in this group: they appear to have six gates which were protected by *tituli*, and their

plan is tertiate in form, with most coefficients in the 1.4 – 1.6 range, the main exception being **Kirkbuddo** which exhibits a pronounced elongated plan (with a coefficient of 2.16) (illus 160). A further defining characteristic is the presence of an annexe at all but three or four of the camps (see above, section 7e).

As originally suggested by St Joseph, the camp at **Castlecraig I** could be a member of this group, because it has two *tituli* on its longer north-west side, suggesting that it had six gates overall. It covers an area of at least 17ha (42 acres), the location of its north-eastern side being unknown (illus 100). However, its cross dimension is 332m, rather smaller than that of other camps in this group, unless it was extremely elongated like **Kirkbuddo**, and assessment of the topography and gate positions suggests that it enclosed only some 21ha (52 acres). Neither is an annexe currently recorded. Not enough is known of the camps at **Eskbank I** and **Lunanhead** to confidently attribute them to this group, although the known dimension of the former is 414m, which could fit if this were the shorter side of that camp (illus 125). **Carpow** will be discussed further below.

The argument that the camps in this group are part of the same campaign is persuasive given the uniformity in their morphology and also the consistent spacing between them, possibly reflecting a day’s march (illus 62). With the exception of **Kirkpatrick-Fleming I**, which lies considerably farther south, the camps form two distinct lines north of the Forth. The northern of these two runs from Stirling along the Roman road to Perth, then along Strathmore on the north side of the Sidlaw Hills to **Keithock**, less than 2km from the Flavian fort at Stracathro. The southern route includes the two camps in Fife alongside that at **Forteviot** on the south side of the River Earn, then through the Carse of Gowrie on the south side of the Sidlaw Hills again to **Keithock**. No camps of this size are recorded farther north than **Keithock**, which lies on the south side of the Cruick Water and the River North Esk.

The northern route has a level of cohesion, with none of the rivers presenting major obstacles: the Knaik and South Esk are relatively small rivers; the likely crossing point of the Earn is where the Roman Road crosses at Strageath fort; that of the Tay is where there was reputed to be a Roman bridge at the fort of Bertha (Crawford 1949: 60–1). The distance between the camps at **Eassie** and **Marcus**, at 19km (12.9 Roman miles), is not so far that the putative camp at **Lunanhead** need be placed in this group. At the southern end of this route, **Craigarnhall** lies only 24km (16.2 Roman miles) from the complex of

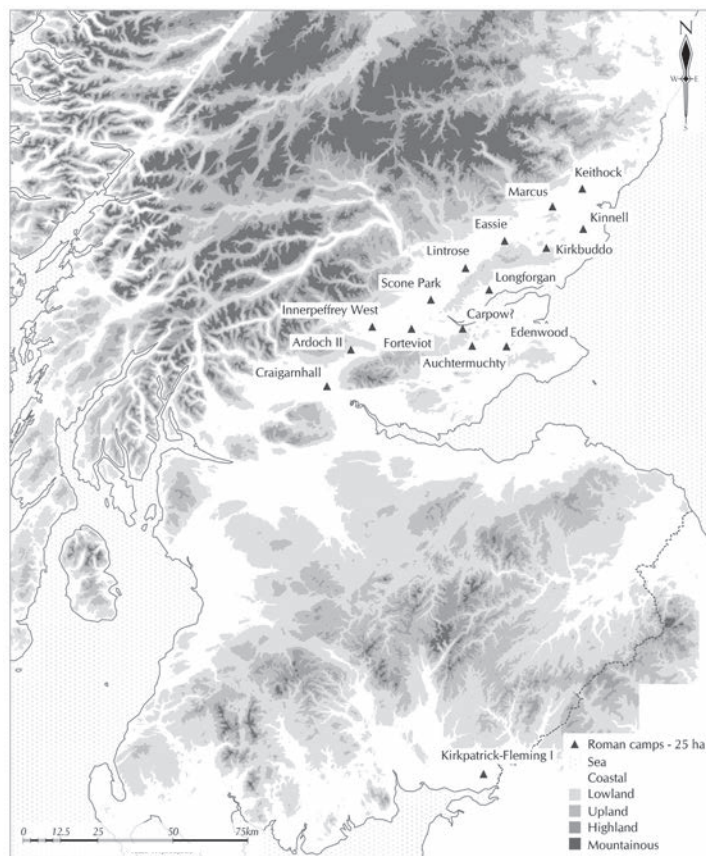


Illustration 62

Distribution map of the 25ha (63-acre) camps in Scotland. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.



Illustration 63

Aerial view of the 25ha (63-acre) camp at Forteviot, taken from the north in 1992. © Crown copyright: RCAHMS. SC1164091. Licensor www.rcahms.gov.uk.

camps at **Lochlands**. If **Lochlands VI** extends across the whole plateau, as is proposed (see gazetteer), then it would enclose some 25ha, but its morphology and proportions would be rather different to the rest of the camps in this grouping. Conversely, the southern group is less regular in distribution, with the distances from **Forteviot** (illus 63) to both **Auchtermuchty** and **Longforgan** seeming too long without an intervening camp because of the imposing presence of the Ochil Hills between **Forteviot** and the former, and the long distance and probably two river crossings between **Forteviot** and the latter. While **Forteviot** could represent an intermediary point between **Innerpeffray West** and **Scone Park**, the farthest two apart on the northern route (it lies 13km from the former, and 11km from the latter), this seems unlikely, because both these camps lie to the north of the River Earn, whereas **Forteviot** lies to its south. However, if one of the camps at **Carpow** were placed in this group, as proposed by St Joseph, the distances seem far more reasonable, with **Carpow** sited 8km (5.4 Roman miles) from **Auchtermuchty** across the Ochil Hills, 16.5km (11.2 Roman miles) from **Forteviot**, and also situated on the south side of the Rivers Earn and Tay, and 15km

(10.1 Roman miles) from **Longforgan** with a crossing of the Tay. If **Carpow II**, the unusual apparently polygonal enclosure visible just to the south of the fort, had its northern boundary in the same position as the northern boundary of the fort, then it could potentially enclose up to 26.6ha (65.9 acres) and fit within this group, despite the differing morphology demonstrated by the recorded perimeter (illus 97).

St Joseph suggested that the army represented by this group marched in a circular direction, effectively to **Keithock** along one route, returning via the other. While this is possible, it would require the construction of more camps than was strictly necessary. Where the army camped on return from campaigns is unclear – it might have reoccupied earlier camps or built new ones. Relatively small-scale trenching has taken place at twelve of the camps in this group, but at no point has an obvious recut been observed. This does not mean that the camps were not reoccupied, but that any reoccupation did not require large-scale recutting of the perimeter ditch. The

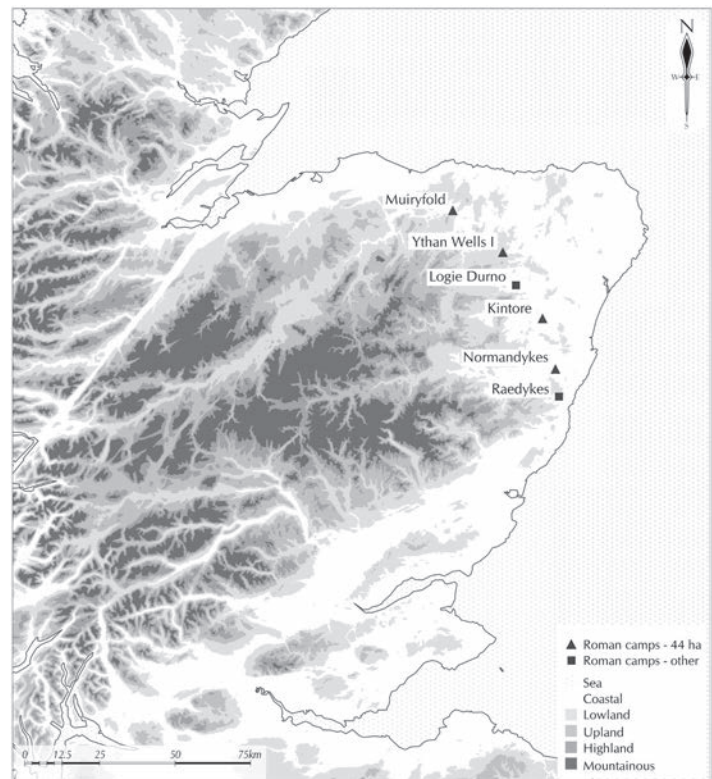


Illustration 64

Distribution map of the 44ha (110-acre) camps and other large camps in northern Scotland. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

orientation of the camps gives no further clues to any proposed direction of travel.

One explanation of the distribution could relate to the need to campaign against the local population which occupied Strathmore and the Carse of Gowrie, rather than necessarily seeing it as an area through which the army traversed en route to tribes which occupied land further north. The camps could therefore represent campaigns against the Venicones and/or the Vacomagi who, it has been argued, occupied this territory (Rivet & Smith 1979: 141, 491; Ogilvie & Richmond 1967: 43–4; although Mann & Breeze argue for their location in Strathspey (1987, 90)). Maxwell suggested that these camps were made after a river crossing (1989a: 65), but not all camp sites involved the crossing of a river, and this also requires the presumption that we know which way round the army was travelling, if indeed its marching route was a large ellipse.

110-acre series (45ha)

The larger camps in northern Scotland were initially grouped into what was referred to as a '120-acre' (c 49 hectare) series (St Joseph 1958: 93; 1969: 118–19), but later this group was refined into two series: '110 acre' (c 45 hectare) (illus 64) and '130 acre' (c 54 hectare) (illus 66) (St Joseph 1973: 231–3).

Morphologically, the '110 acre' (c 45 hectare) camps appear similar to one another: they are tertiate with six gates protected by *tituli*.

Muiryfold (illus 65 & 182) and **Ythan Wells I** (illus 213) are close to a parallelogram in shape, but **Raedykes**, by far the smallest and probably should not be included in this group, exhibits an extremely irregular form (illus 16 & 193) and is one of the most irregular camps so far recorded in Britain. St Joseph argued for its presence in this group, despite its small size, on the basis that troops might have been away from the camp guarding the bay at Stonehaven some 5km to the south-east (1978a: 277–8). While a putative camp is recorded at Arduthy (see gazetteer), there is not enough evidence to support this assertion.

130-acre series (54ha)

This series contains a group of camps running from **Ardoch** to **Kair House** on the Bervie Water (illus 66), and probably also includes the camp at **Househill Dunipace**, across the River Carron from the group at **Lochlands** and, feasibly, **Wooden Home Farm** in southern Scotland. The camps are tertiate and probably had six gates protected by *tituli*, but not all are regular: for example, **Innerpeffray East** exhibits projecting corners on its eastern side (illus 148).



Illustration 65

Aerial view of the south-east side of Muiryfold, one of the camps in the 45ha (110-acre) series, taken from the north-east in 1982. © Crown copyright: RCAHMS. SC354843. Licensors www.rcahms.gov.uk.

Furthermore, the area enclosed by the large camps at **Pathhead III** and **Channelkirk** is not known, but topographically both could enclose some 55ha (c 135 acres), although St Joseph has argued that both enclose a larger area, which is also possible given the lack of knowledge of their overall size (see section on '165-acre' camps below).

North of the isthmus there is little regularity in spacing between the camps (illus 66). The gap between **Househill Dunipace** and **Ardoch I** is large and required a crossing of the River Forth, so it is likely that there would have been an intermediary camp in the Stirling area,

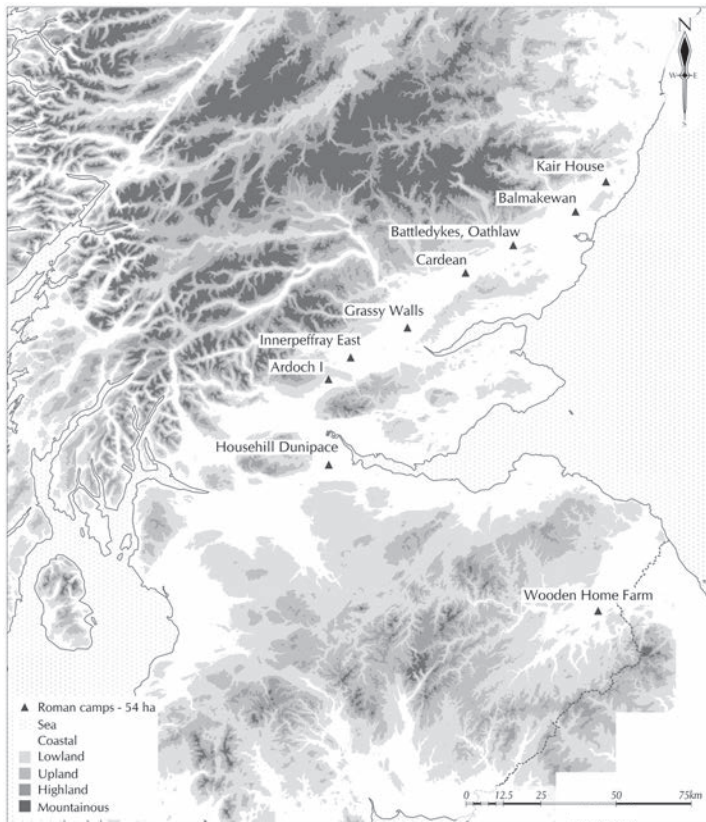


Illustration 66

Distribution map of the 54ha (130-acre) camps in Scotland. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

possibly in the vicinity of **Craigarnhall**, **Ochertyre** or **Hillside Dunblane**. Regarding topography, Maxwell has commented that the army in these camps (as with the 25ha camps) usually bivouacked after crossing a river (1989a: 65–6; 1991: 111–12). On the assumption that the army was travelling in a northerly direction, this could be another feature of the camps in the 54ha/130-acre group. However, the crossing of a river prior to bivouac was not confined to camps in these groups, with other examples known at **Normandykes** (44ha) and **Drygrange** (across the Tweed from **Newstead** – up to 19.6ha). The fort and camps at **Castledykes** are located on the north bank of the Clyde (and range from c 1 to 24ha in size); **Lochmaben** (c 23ha) is on the west side of the Annan, and, indeed, camps are located on both sides of the River Annan at **Beattock** (ranging from 1.4 to 15.4ha in size) and close to its mouth at **Annanfoot** and **Hillside Annan**; while the camps at **Crawford** are situated on both sides of the River Clyde. Forces could be moving in a transverse direction along river valleys

and not necessarily require the river to be crossed. This is particularly apparent in parts of southern Scotland. The camp at **Wooden Home Farm** lies on the south side of the River Tweed, but is geographically removed from its northern counterparts and may represent the movement of a lateral force up the Tweed, potentially from an unidentified fort in the Berwick area to Newstead. The camps in Strathmore occupy land on the north side of the marshy central lochs of the strath, now broadly indicated by the River Isla and the Dean Water, and in this area there is a similarity between the distribution of the 54ha camps and the 25ha camps (illus 66 & 62).

165-acre series (67ha)

St Joseph first identified three camps in southern Scotland with his ‘120-acre’ series (see ‘110-acre’ and ‘130-acre’ above), while noting that they appeared appreciably larger (1958: 93). He later refined these into a new ‘165-acre’ series, expanding the number of sites involved (1969: 118)

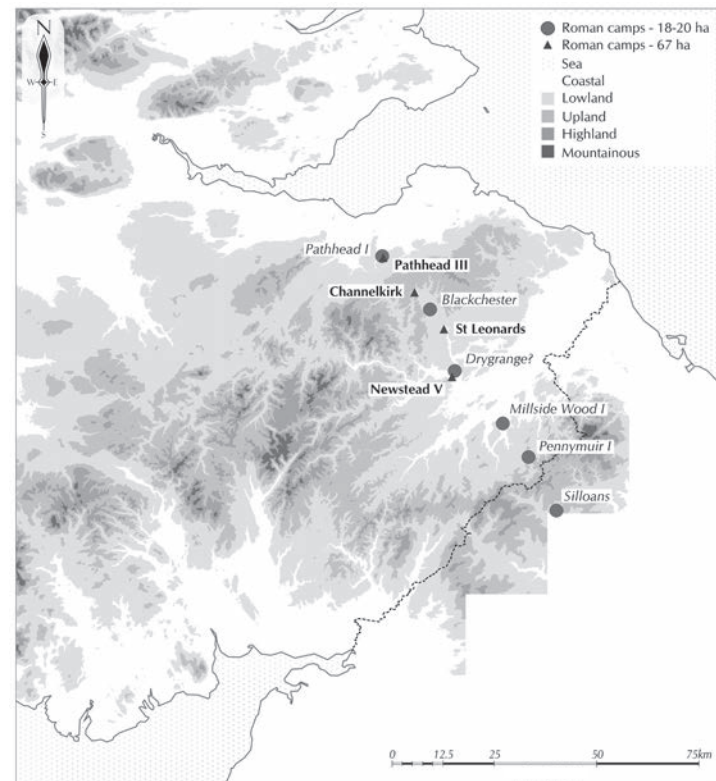


Illustration 67

Distribution map of possible groups of camps on Dere Street: the 67ha (165-acre) camps and a possible new 18–20ha group. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.



Illustration 68

Aerial view of the east side of the very large (67ha/166-acre) camp of Newstead V and the eastern part of Newstead IV. Taken from the south-east in 1977. © Crown copyright: RCAHMS. SC1164039. Licensor www.rcahms.gov.uk.

(illus 67). However, the size of three of the five camps that he proposed is not verified.

The large size of **St Leonards** is known and parts of all four sides of **Newstead V** are recorded, giving a good indication as to its overall area. **Inveresk I** should be discounted from this series, and the inclusion of **Channelkirk** and **Pathhead III** is open to debate, although the camps lie at a fairly regular distance from one another (*c* 11km). If **Channelkirk** (illus 103) is as large as its southern neighbours, then it would enclose some irregular ground, but the whole length of one side is known, and this does equate with the long lengths of the camps at **St Leonards** and **Newstead V** (illus 68 & 183). Of the camp at **Pathhead III**, a similar length in excess of 700m is known of both sides (illus 190). St Joseph recorded a *titulus* on the south-west side of the camp, but the cropmarks are not clear, and the feature visible could relate to other activity at the edge of the field. However, if this cropmark is a *titulus* and the camp covers some 65 hectares or more, then the gate may be less than 200m

from the south corner, although this does not necessarily discount it from the group.

Lower Strathearn to the Tay

St Joseph also noted a potential pairing in the camps at **Dunning** and **Carey** (Abernethy), because of their similar morphology (1973: 218–20) (illus 118 & 95). The camp at **Dunning** appears to be slightly larger than its eastern counterpart, but less of the camp is known, and slight changes in the perimeter could adjust its overall area measurement. St Joseph also suggested that **Carpow I** was of similar dimensions, because the distance between the two identified linear cropmarks at **Carpow** was some 670m (illus 97), the same as the length of **Carey** (1973: 218–23). However, **Carey** and **Carpow** lie only 3km apart, which makes them unlikely members of the same series, and not enough is known about the dimensions and morphology of the camp at **Carpow**.

The difference in dating revealed by the artefacts recovered at these two camps (sherds from a probable

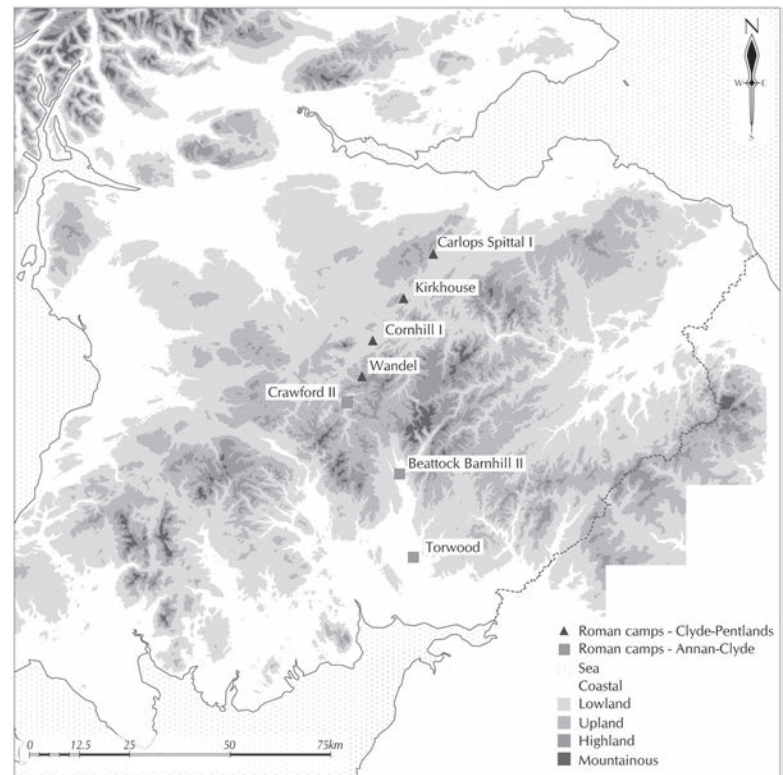


Illustration 69

Distribution map of the camps from Solway to Forth, including the possible Annandale to Upper Clyde and Clyde to Pentlands groups. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Antonine bowl from **Dunning** (Dunwell & Keppie 1995) and a late 1st-century fragment of samian from **Carey** (St Joseph 1973: 220)) suggests non-contemporaneity, but evidence of a recut at **Dunning** demonstrates the complexity in the archaeological record. Furthermore, a faint linear cropmark within the camp at **Dunning** might represent a reducing earthwork in a second phase of use. Intriguingly, if the estimated size of **Carpow** is correct, it and **Dunning** could relate to one campaign, and **Carey** and **Dunning** to another, although it is not known whether both occupations of **Dunning** required the same size of camp.

Maxwell’s groupings

Besides St Joseph’s series of camps, only a limited amount of work has taken place on the type and date of temporary camps in Scotland, chiefly by Gordon Maxwell. Together with W S Hanson, he noted the number of camps in southern Scotland that enclose some 17–22ha (42–54 acres) and attempted to assign some to the Antonine period on the basis of morphology – the tendency to tertiate plan – and the relationship between camps and roads where the latter appeared to be the earlier feature (Hanson &

Maxwell 1986: 65–8). Maxwell also, with David Wilson, identified two additional possible groupings in 1987, observing the similarities between the Stracathro-type camps at **Dalswinton Bankfoot I** and **Castledykes I** and possibly that at **Beattock Bankend** (1987: 30–1), and noted a further group comprising some of the camps running on the Roman road from the Upper Clyde Valley that leads up the east side of the Pentlands to Edinburgh (1987: 32–4).

The three large Stracathro-type camps lie in different river valleys and are not on an obvious line of march (illus 21). However, the area enclosed by the camps at **Castledykes I** and **Dalswinton Bankfoot I** is almost identical, and **Beattock Bankend** could have similar dimensions. Maxwell & Wilson proposed that the three represented individual Agricolaan battle groups (1987: 31). While such specific dating can be debated, they represent temporary bases for a large force (or forces) moving through south-western Scotland.

The possible group running from the Clyde to the Pentland Hills also has potential, particularly in terms of size (*c* 17ha) and spatial distribution (illus 69). **Cornhill I** (illus 106) and **Kirkhouse** (illus 161) share similar dimensions; although **Carlops Spittal I** is a little larger and exhibits an elongated form, this is due to the need to site the camp on flat ground along a narrow ridge (illus 96). Maxwell & Wilson were unsure as to whether **Cold Chapel** or **Wandel** represented a likely additional member to the group, but assessment of the ground at **Cold Chapel** suggests that it was smaller, whereas there is space for a *c* 17ha camp at **Wandel**. Both **Cornhill I** and **Carlops Spittal I** had secondary phases of use, and again there are similarities in the size of the reduced area enclosed, both approximating to 14ha (*c* 34 acres).

Subsequent to the identification of this group, an elongated annexe was recognised at one end of the camp at **Carlops Spittal** (illus 70 & 96). While this does not negate the validity of this grouping, the lack of identifiable annexes at the other camps does suggest a differing function for this site and such provision presumably was not a requisite for these *c* 17ha camps, unlike the 25ha group discussed earlier. Therefore there is the possibility here that this small annexe (enclosing 0.84ha) could represent a separate camp which held a small detachment of troops on reconnaissance or manoeuvres. The possible camp at **Boghall**, lying some 11km to the north-east could represent a similar small camp if it stopped short of the Boghall Burn, although not enough is known about this camp (illus 215). **Carlops Spittal** lies some 18km from the Flavian fort at Elginhaugh (see below).



Illustration 70

Aerial view of the annexe and north-east side of Carlops, taken from the south-west in 1996. © Crown copyright: RCAHMS. SC1164175. Licensors www.rcahms.gov.uk.

Other possible groupings

It is difficult to identify other possible groups of camps in north Britain other than to note broad similarities between some examples. The number and range of camps along the Roman roads in southern Scotland exhibit a wide variety of morphology and size. However, a further series of camps can be postulated running up Dere Street, measuring some 18–20ha in size (illus 67). These could start at Silloans in Northumberland (Welfare & Swan 1995: 123–5) and include **Pennymuir I**, **Millside Wood I**, possibly **Drygrange** and **Blackchester** and continue to **Pathhead**. South of Silloans, a similar sized camp cannot currently be identified.

The camps in this group are all tertiate in form (with coefficients ranging from 1.3 to 1.52) and probably had six gates, although not all the gates are known at all sites. Welfare & Swan recorded only four probable gates at Silloans, but later drains and boundary banks have disrupted some of the camp. It is also bisected by Dere Street and, although Maxwell stated that the camp must pre-date the road (1981: 39), detailed field survey could not ascertain the relationship between the two (Welfare & Swan 1995: 125). The other camps in the group lie close to the road but not across its course. Therefore, while Silloans might not be a member of this group, there is a certain level of symmetry in these camps. Only 14ha of **Blackchester** is known at present, but there is space here for a camp of 18–20ha (illus 87); only part of **Drygrange** is recorded but it could enclose a similar size. Where the camps lead after **Pathhead** is uncertain. While **Inveresk** lies only 16.5km to the north, none of the camps here shares similar morphology with this group, although the overall extent of **Inveresk I** is unknown.

Elsewhere on Dere Street, there are some morphological similarities between the two camps at **Ulston Moor** (illus 177) and that at **Kedslie** (illus 155), some 22.5km to the north, although the eastern side of the **Ulston Moor** camps is unconfirmed. West of Dere Street, the camps at **Milrighall** and **Oakwood** in the valleys of the Ale and Ettrick Waters lie some 11km apart (illus 179 & 187). On first glance the camps appear quite different, with **Milrighall** being fairly square in form (coefficient 1.07), having external *claviculae* gates and enclosing 14.5ha (36 acres), whereas **Oakwood** has double *claviculae* (internal and external), encloses 13.2ha (33 acres) and is more elongated with a coefficient of 1.39. However, apart from these differing proportions, the camps are remarkably similar. **Oakwood** is mainly upstanding, whereas **Milrighall** is known only from cropmarks, but

once adjustments are made to account for the differences between the area within the rampart as opposed to the area within the ditch, they enclose very similar internal space. Moreover, **Milrighall**, with its external *clavicula* ditch, is most unusual, but this ditch could have accompanied an external *clavicula* bank, and it is probable that the camp also had internal *claviculae* in the double form visible at **Oakwood**. This situation with an external *clavicula* ditch accompanying double *claviculae* is mirrored in the two camps at Troutbeck in Cumbria (Welfare & Swan 1995: 44–50).

Farther south on the River Teviot, the two camps of **Cavers Mains** and **Eastcote**, lying less than 1km apart,



Illustration 71

Aerial view of the camps at Beattock Bankend and Barnhill, taken from the south-west in 1977. © Crown copyright: RCAHMS. SC1164184. Licensor www.rcahms.gov.uk.

may have similar dimensions to each other, both enclosing just over 11ha, although the full extent of **Cavers Mains** is currently unknown (illus 102). Given their close proximity, they presumably represent two separate conquests or reconnaissances of the area, although admittedly they could represent two forces travelling separately which arrived at the same site to form a concentration. However, at almost

1km apart, this latter explanation seems less likely because there is space for them to have camped directly alongside one another.

In the upper reaches of the Tweed west of Newstead, similarities can be observed between the camp at **Innerleithen** (illus 147) and the larger camp at **Lyne** (I) (illus 172), at the confluence of Tweed and Lyne Water. Both have a very similar length to one another (506m and 509m respectively) and, while the width of the former is unknown, given the position of the entrance gap the cross dimensions may also be similar (some 395m) so that both could enclose some 19.7ha (49.7 acres). This assumes that the course of the River Tweed at **Innerleithen** in antiquity was slightly south-east of its current position. The camps both sit on the north bank of the River Tweed some 13km (8.8 Roman miles) apart. West of **Lyne**, the camp at **Castlecraig I** appears to enclose a larger area and **Bankhead Carnwath I** a smaller area, so no further camps can be added to these two at present.

Some five camps can be identified in the cluster at **Beattock**, with one (**Bankend**) lying south-west of the Evan Water and the other four (**Barnhill I–IV**) lying across the Water to its north (illus 71 & 85). The full extent of **Beattock Barnhill II** is not confirmed, but there are similarities between this camp and that at **Torwood** (illus 205) close to the undated Roman fort at Ladyward to the south. The camps are similar in morphology: both enclose just over 15ha (some 38 acres), have entrances protected by *tituli* and lie 21km apart. The camps at **Crawford** (illus 108) lie some 21km from **Beattock**, and it is possible that at least one of the camps south of the fort here represents a further leg on the **Torwood** to **Beattock Barnhill II** route (illus 69). Furthermore, the *titulus* visible on **Crawford II** lies the same distance from the corner of that camp as the northern *titulus* on **Beattock Barnhill II**, strengthening the proposition that **Crawford II** might join this group. A farther 22km south of **Torwood** would be a location between **Kirkpatrick-Fleming** and Gretna, although none of the camps currently recorded at **Kirkpatrick-Fleming** has a similar morphology or size to these three.

It can be observed that the majority of camps allocated to specific ‘series’ lie north of the Forth–Clyde isthmus. The remaining camps in this northern area cannot easily be grouped by size, although the dimensions are not known for several (such as **Gagie** and **Invergowrie**). The two overlapping camps at **Hillside Dunblane** (illus 143) lie some 12km from **Ardoch** (illus 77) and it is interesting to note that the earlier of the two (at 12.9ha) is about 1ha larger than **Ardoch IV**, and the later is 0.6ha larger than **Ardoch III**. St Joseph argued that the north-western ditch of **Ardoch III** had been deliberately filled during the creation of **Ardoch IV**, but if the sequence mirrored that which has been recorded at **Hillside Dunblane**, **Ardoch III** would represent a reduction of **Ardoch IV**, which is equally possible because the intersection of the two camps has not been excavated. However, the morphology of the camps at **Ardoch** and **Hillside Dunblane** is sufficiently different to discourage grouping, and, as noted earlier, a large number of camps cluster around the 11–13ha mark (table 4).

The dimensions of the two probable camps at **Carpow** are unknown, and, although the polygonal enclosure can be estimated to fit into the 25ha group, this assessment is based on guesswork given the location of the northern perimeter of the fortress, rather than on evidence for the actual size of the camp. Furthermore, Wilson has commented that this enclosure could be a defensive outwork for the Severan fortress (1984: 57) rather than a camp. Yet **Carpow** occupies a convenient position on the Firth of the Tay. It also works as a crossing point for campaigns in Strathmore (Crawford 1949: 58) and has been proposed as a base for the fleet (*Poreoclassis*), following a reading of the Ravenna Cosmography (Richmond & Crawford 1949: 43).

Thus a number of ‘series’ of marching camps can be identified in Scotland, most of which probably represent the sequential movement of troops on campaign (Jones 2009a). North of the isthmus, large groups of camps have been identified in the low-lying areas of eastern Scotland, but south of the isthmus, a wider variety of camps are recorded, only some of which can be placed into potential groupings.

Dating and conclusions

10.1 *Dates of camps in Scotland*

There are essentially four ways in which it is possible to assign or propose dates for temporary camps. Firstly, the historical context enables us to allocate dates on the basis of probability given the geographic location of the camps: for example, most camps north of the Forth and Clyde isthmus are usually allocated to the Flavian or Severan campaigns because these are the two main recorded incursions into this area. In southern Scotland, however, Antonine campaigns must also be attested. There are tantalising clues in the literature to campaigns in Scotland outwith these three main phases (see Chapter 8), but as yet there has been limited work to try and gain any tangible evidence for other campaigns (Daniels 1970; Hanson 1978a). Secondly, a camp can be assigned to a period on the basis of association, perhaps because it is located outside a fort dated to a particular period or has a relationship with a Roman road. Thirdly, ground survey and excavation can help to determine the relative sequence in which camps (and other sites) were constructed, and, finally, radiocarbon dating programmes and stratified artefacts may supply an indication of absolute date.

The allocation of a date to a particular camp in a series enables us to propose likely dates on the basis of analogy for the other camps that share morphological similarities and form part of a coherent spatial pattern, such as the series discussed in Chapter 9. However, the picture is undoubtedly more complex, with several camps demonstrating signs of reuse and occasionally artefacts and/or radiocarbon dates suggesting different dates to one another. Nevertheless, it is possible to propose likely dates for several camps through the application of one or more of the four criteria outlined above, particularly in recent years through the last two categories (Jones 2009b).

The so-called Stracathro-type camps do appear, on balance, to belong to campaigns in the 1st century AD, along with most other camps in Scotland that possess *claviculae* at their entrances (see section 7b). Dating evidence is minimal,

but sufficient to be confident that *claviculae* in Britain date to the later 1st and early 2nd centuries AD (Jones 2009c), and in a Scottish context this means probably the Flavian period of campaigning.

Dating camps is fraught with problems (Jones 2009b). Recently, Hunter has undertaken an assessment of all finds found in the vicinity of camps (forthcoming), but very few have been recovered from secure stratigraphic contexts and many lie close to Roman roads raising questions over their provenance and associations. Yet, looking at the various series of camps identified in Chapter 9, potential dates and contexts can be suggested for these and others. The most northerly group, (44ha/110 acres – illus 64), has been attributed to both the Flavian and Severan campaigns by various scholars (St Joseph 1973: 232; Maxwell 1981: 40; Breeze 1982: 133). The camp at **Ythan Wells I** was demonstrated on excavation to be later than its Stracathro-type neighbour (**Ythan Wells II** – illus 17) (St Joseph 1970a: 175–7). But the key site in this group is the recently extensively excavated camp at **Kintore**, which has yielded considerable archaeological evidence in terms of internal features, artefacts, and radiocarbon dates from ovens (see section 7f). While work is ongoing, the evidence suggests that the camp was primarily occupied in the 1st century AD, but there may have been a secondary occupation in the late 2nd/early 3rd century AD (Cook in prep). This strengthens the contention of a Flavian date for the 44ha camps, but its later possible reoccupation also allows for potential Severan usage, although large-scale trenching of the perimeter ditch revealed no evidence for any recutting. It is, of course, possible that any refurbishment of the perimeter resulted in a larger ditch which obliterated all traces of its predecessor. Whether or not the other camps in this group also display a similar level of complexity can only be ascertained by further work at these camps. **Ythan Wells I** revealed a ditch of similar width to that at **Kintore**, although shallower, but the two camps have had differing agricultural regimes in the intervening centuries, and it is not currently known whether **Ythan Wells I** was

reoccupied in the way that has been mooted for **Kintore**, and therefore any comparison of the ditches of the two camps will not currently resolve this question.

The large camp at **Logie Durno** (illus 169), lying midway between the camps at **Kintore** and **Ythan Wells I**, is some 15ha (35 acres) larger than the 44ha camps, enclosing some 58.6ha (145 acres). This, combined with Tacitus' comment that Agricola split his army into three divisions in his sixth season (*Agricola* 25), promoted pursuit of a '30-acre' series to link the two, but this cannot be sustained by the evidence (Chapter 9). **Logie Durno**, lying at the foot of Bennachie, has been proposed as the camp hosting the Roman army at the battle of Mons Graupius, fought in Agricola's seventh season. In order to fit the archaeological and literary evidence to one another, it was proposed that the force operated in at least two divisions which gathered at this site (St Joseph 1978a: 280). (That Tacitus makes no mention of the army being split does not matter because its division into separate forces does not appear to have been an uncommon facet of ancient campaigning and is recorded in other classical sources (eg Josephus *Bellum Iudaicum* V.68).)

Logie Durno, like the 44ha camps, is tertiate in form, with six gates defended by *tituli*. But its size sets it apart from its neighbours and it remains an enigma in the archaeological record. The forces at Agricola's disposal at the battle of Mons Graupius probably numbered between 17,000 and 26,000, and 21,000 has been proposed (Breeze 1988: 8–10). The 44ha camps could have held this entire army, even using the most generous allowance of space when calculating the density of occupation in the camp (Jones 2006). **Logie Durno** could have held a much larger army, unless there was a specific and unique reason for enclosing the additional space. The primary construction of the 44ha camps probably relates to a specific army and campaign in the Flavian period, but trying to fit **Logie Durno** on the grounds of size and a non-existent '30-acre' series is unjustified. Unless there is a series of currently unidentified extremely large camps in north-eastern Scotland, special circumstances must have dictated the need for such a large camp in this location, possibly to house captives, but in which case they must have been dispersed after being gathered in this camp. The evidence for more than one occupation at **Kintore** demonstrates that there was reuse of some of the northern camps in the Flavian period as well as significantly later.

The distance between **Kintore** and the next 44ha camp to the north (**Ythan Wells I**) is reasonably long, at 25km, with **Logie Durno** located roughly midway between the two. However, 25km need not be excessive, with long

distances also separating **Normandykes** and **Kintore**, and **Ythan Wells I** and **Muiryfold** (Jones 2006). Vegetius refers to the army training by marching some 20 Roman miles (*c* 30km) on manoeuvres (*Epitoma* I.27) and up to 24 miles (*c* 35km) at a faster pace (*Epitoma* I.9). Furthermore, Breeze has calculated that Agricola's marching column could have been at least 15.2km long (1988: 12), over 10 Roman miles. Therefore, the camp at **Logie Durno** is not required in order to make the spatial distribution of the 44ha group work. Indeed, the 44ha series is a coherent group, with similar morphology and dimensions as well as consistent spatial distribution. In order to fit **Logie Durno** into the sequence, a contemporary group of *c* 14ha (34 acre) camps is required, unless a further 14ha was laid out within this particular camp for other activities which were not required at the other camps. If it were the site of the battle of Mons Graupius, Tacitus offers no reason why additional space within the camp might have been needed, and it could have held Agricola's army with space to spare. There was no apparent taking of hostages at the battle, although Tacitus tells us that afterwards Agricola's army marched into the territory of the Boresti where he did proceed to take hostages (*Agricola* 38). While there are health warnings over the use of Tacitus as an archaeological guide (eg Hanson 1991; Hoffmann 2004), the taking of hostages would require a series of larger camps returning from somewhere beyond the unlocated Mons Graupius back to the more permanent bases. The territory of the Boresti is unknown, with proposed locations ranging from Strathmore to the Moray plain (Breeze 1982: 31; Hanson 1991: 140). However, even if space was given over in **Logie Durno** to hostages (and this camp is by no means necessarily Flavian in date), this still does not explain the discrepancy between this camp and the 44ha camps nearby. Trying to fit the archaeological remains of the camps into such a framework runs the risk of substituting one unsubstantiated dogma for another.

The 25ha (63-acre) series (illus 62) is the most cohesive group of camps north of the isthmus, excepting the lone southern example at **Kirkpatrick-Fleming I**. These have been proposed as both Flavian and Severan in date (St Joseph 1958: 93–4; 1969: 116–18), the latter owing to the presence of a possible camp at **Carpow**, the site of a known Severan fort (Dore & Wilkes 1999), although the presence of a 25ha camp at this site is only suspected and not yet confirmed. The potential dating of these camps hinges on the relationship and similarities between these camps and those of *c* 54ha (130 acres) in size; there is a morphological likeness between the two groups (both comprise tertiate plan camps with six gates protected by *tituli*) which also

follow a similar line of march through Strathmore (illus 62 & 66). However, this geographical relationship could be due to the use of maps and itineraries rather than temporal proximity. The camps at **Ardoch II** and **Innerpeffray West** intersect their larger c 54ha neighbours (**Ardoch I** and **Innerpeffray East**); at the latter site the annexe of the West camp probably intersects the East camp (illus 148).

At **Ardoch**, the 25ha camp not only intersects its larger neighbour, but also three other camps on the plain north of the Flavian and Antonine fort (illus 77). Excavations to determine the sequences between the camps have taken place on several occasions (St Joseph 1970a: 167–9; 1976: 14–19; Hanson 1978a: 146–9). These have concluded that the 25ha camp (**Ardoch II**) is probably the earlier of the two large camps. The relationship between the two camps at **Innerpeffray** has not been tested by excavation, but it is likely that the East camp is the later of the two, following the pattern at **Ardoch**. **Innerpeffray West** appears to lie astride the Gask Ridge Roman road. Excavations at this intersection in 2007 recorded that the road was later, although this need not have been of Roman origin (it could, for example, represent the route of the medieval road in the area). But its route does line up with the known stretches of Roman road in this area (Woolliscroft & Davies 2002; Woolliscroft 2005a). The road is conventionally assumed to be Flavian in date, owing to its association with the watchtowers along its route, which have produced fragmentary dating evidence (eg Hanson & Friell 1995; Glendinning & Dunwell 2000; Woolliscroft 2002a); but the dating of the road is unproven and an Antonine date is also not implausible. If the road is indeed Roman in date, this suggests that the camp would date to the early Antonine period at the latest, and seriously questions the attribution of the 25ha series to Severus (which was, itself, based on supposition and inference).

No dating evidence has been recovered from any of the camps in the 54ha group (illus 66) (except a stray Trajanic coin from **Grassy Walls**), other than the establishment of the sequence between **Ardoch I** and its neighbours, which suggests that is one of the latest camps to be occupied at this location (see gazetteer). The relationship between **Ardoch I** and the 'Procestrum', the annexe north of the fort, has been disputed: that the camp is the later of the two features is argued by St Joseph (1977: 135), but Roy drew the Procestrum overlying the camp (1793: Pl. X) at their western intersection. The evidence still visible on the ground at their eastern intersection suggests that the camp is later, and later field boundaries obscure the relationship

at the western intersection. The dating of the annexe is not confirmed, but there is no evidence for occupation of the fort (and by analogy the annexe) later than the Antonine period, providing a *terminus post quem* for the camp.

St Joseph's excavations at **Ardoch** led him to pronounce that it was 'inescapable' that **Ardoch I** and **II** were separated by a short interval of time (1970a: 171), but this argument was dependent on the amount of silt that had accumulated in the bottom of the ditch of **Ardoch II** before deliberate infilling, and assumptions about rates of ditch silting are difficult to sustain. **Ardoch II** may have been Flavian or early Antonine, whereas **Ardoch I** appears to be post-Antonine, and thus here we have potentially the first evidence for camps this late north of the isthmus. It was observed by St Joseph that **Kair House**, the most northerly of the 54ha series, lies close to where the edge of the highlands approaches the sea (1969: 233), and therefore could represent the 'furthest point of the island' as noted by Cassius Dio in relation to Severus' campaigns (LXXVI.13), although there could be further undiscovered camps to the north. Alternatively, the army could have been reduced in size, potentially owing to the loss of troops if Dio is to be believed (LXXVI.13), and reoccupied the 44ha camps such as **Kintore**.

There seems to be a general consensus amongst several historians and linguistic scholars that the area occupied by the Caledonian tribes was not in northern Scotland, but was located as far south as Perthshire (eg Hind 1983: 377; Fraser 2005: 33–5). Therefore, the army occupying these camps may have already passed through Caledonian territory once they had reached **Kair House**, and be in the territory potentially controlled by the Venicones or Vacomagi, although the detail provided by Cassius Dio as to the geographic location of the Caledonians is limited (LXXVI.12). The 'furthest point' to which he refers (LXXVI.13) could refer to the area beyond the Caledonians rather than the northern extremities of Scotland, which would mean that the 54ha camps could represent Severan campaigns which invaded and 'passed through' Caledonia (LXXVI.13). Later campaigns are attested in the literature, but the Severan conquest of Scotland does seem the most likely time frame for these camps on present evidence. The camp at **Raedykes** (c 39ha), north of the 54ha camps and south of the 44ha camps, remains an anomaly.

Another apparent series of tertiary camps with six gates is the so-called 67ha (165-acre) series on Dere Street in south-eastern Scotland (illus 67). St Joseph proposed a Severan date for these camps on the basis of the size of the army that must have been operating and also because the camp at **Newstead V** (1969: 118–19) avoids intersecting

with the fort, although it does intersect with its southern annexes. It has been argued that the visible cropmark, which probably represents the northern side of the camp, relates to field-systems around the fort or further annexes (R F J Jones pers comm), but the excavated evidence is ambiguous (Clarke & Jones 1994), and the ditch identified by the excavators could yet be the northern perimeter of the camp. Although we do not know the size of some of the camps in this group, **St Leonards** and **Newstead V** do represent the largest known camps in Britain, with a potentially vast holding capacity. Even using the most generous figures for space allowance within the camp and the presence of a large baggage train, **St Leonards** could have held at least 40,000 men, surely the largest army that ever took to the field in Britain, excepting perhaps the Claudian invasion army (Peddie 1987: 23–5, 180–4). Despite very limited excavation and no dating evidence thus far, the most likely scenario for such a large force from the available textual evidence is the Emperor Septimius Severus' campaigns in the 3rd century AD, where the presence of the Emperor and one of his sons would have necessitated such a large force and baggage train. This does seem to be the period when the size of the northern garrison was at its greatest (Breeze 1984a: 268), and the line up Dere Street marks an obvious route for Severan armies to the Severan coastal fort at Cramond (Holmes 2003).

Following St Joseph's work on 'series' of camps, Maxwell also undertook assessments of various groupings. His reasoning on the dating of temporary camps in Scotland has broadly followed that of St Joseph, although he admitted the difficulty in distinguishing between camps constructed by Agricola and those of later Flavian armies (1981: 28), where St Joseph had tried to tie some of his series into individual campaigns by Agricola; such a distinction is currently not possible in the archaeological record without an over-reliance on Tacitus. Nevertheless, Maxwell attempted to assign some camps to Flavian campaigns (1981), and others to the Antonine occupation (Hanson & Maxwell 1986: 65–8). The former were allocated on the basis of proximity to, and relationships with, dated permanent Flavian military installations and roads, as well as similarity to other camps, a squarish plan, and general distribution (Maxwell 1981: 37–41). The latter were allocated on the basis of a tendency to tertiate plan and a relationship with adjacent roads when it could be suggested that the road was the earlier of the two (Hanson & Maxwell 1986: 65–8).

Some of the dates given by Maxwell to particular camps have stood the test of time. For example, at Rey Cross in

County Durham, excavations on the camp and Roman road demonstrated, on excavation, that the camp was the earlier of the two thereby supporting a Flavian date, although it probably had later occupation owing to the presence of pottery from the 3rd and 4th centuries AD pottery in the interior and also in the upper fill of the ditch (Welfare & Swan 1995: 57–60). Crackenthorpe and Plumpton Head (both in Cumbria) are frequently associated with Rey Cross on the basis of similar morphology, multiple gates and spatial positioning (Maxwell 1981: 39).

Excavations at the camp at **Carey** revealed a small fragment of South Gaulish samian from the late 1st century AD in the ditch, but did not report any recutting of the perimeter (St Joseph 1973: 220). However, at **Dunning**, which is similar in both size and morphology, excavations revealed evidence for reuse at its northern and western entrances. Several sherds of Black-Burnished ware probably dating to the Antonine period were recovered from the fill of the western *titulus* ditch (Dunwell & Keppie 1995). But it is possible that these artefacts may date to a secondary use of the camp, indicating the level of complexity in these structures, which is belied when trying to pigeonhole them into single time frames for occupation.

The possible Upper Clyde to the Pentlands group that Maxwell & Wilson identified (1987: 32–4) (illus 69) was proposed as Flavian in date, because of the likelihood that several of the camps (**Carlops Spittal**, **Kirkhouse** and **Wandel**) pre-dated the Roman road which intersects their perimeters. This seems likely, particularly with the addition of **Wandel** to this group, because it enclosed a small Antonine fortlet and therefore probably pre-dated its construction (illus 208). Although this does not automatically demonstrate that the camp at **Wandel** is Flavian (because an early Antonine camp could pre-date this fortlet), its size suggests that it intersected the road and was probably the earlier of these two structures. Thus, the camps in this group could date to an early conquest phase of activity from Clyde to Lothian in the Flavian period.

The three large Stracathro-type camps in south-western Scotland (**Castledykes I**, **Dalswinton Bankfoot I**, **Beattock Bankend**, see Chapter 9 & illus 21) were proposed as Agricolan in date (Maxwell & Wilson 1987: 31), but their attribution to Agricola's army is unproven. Furthermore, the complexity of the Flavian occupation attested in south-west Scotland, supported by the early date of the fort at Carlisle, could be used to argue that they pre-date the arrival of Agricola in the province. Although a Flavian attribution seems likely, further refinement is currently not possible.

The allocation of camps in Scotland to the Antonine period is, at first glance, not a straightforward task. However, a number of camps along the Antonine Wall have been, quite successfully, linked with the construction of the frontier barrier (Feachem 1958; Hanson & Maxwell 1986: 117–19; Jones 2005b; see Chapter 2.2), and two have yielded finds which confirm their Antonine attribution (**Dullatur** and **Little Kerse**).

When assessing camps away from the Antonine Wall, concentration has been placed on those lying north of the isthmus, and most have been attributed to the Flavian and Severan campaigns. St Joseph made only throwaway remarks about possible Antonine camps, apart from noting in his earliest paper on possible series of camps that those that were probably post-Flavian could be Antonine or Severan, but he later opted for Severan (1958: 93; 1969: 118–19). Hanson & Maxwell picked up the challenge and proposed a number of camps of possible Antonine date (1983: 65–8). They noted that Antonine camps had a tendency to tertiate plan (1983: 65–8), but this is not absolute, with many probable Flavian and Severan camps also demonstrating this morphology.

The camp at **Beattock Barnhill I** was initially proposed as Flavian largely on the basis of its almost square shape (illus 85). Following small-scale trenching which demonstrated that it overlay a probable fortlet of unknown date, a date in the latter part of the 1st century AD was proposed (Maxwell & Wilson 1987: 21, 25), but an Antonine date remains a possibility. **Beattock** is a key site in south-western Scotland. It is assumed that the Stracathro-type camp of **Beattock Bankend** is probably Flavian, although no dating evidence to confirm this was recovered during excavations (Speller & Leslie 1995). But a study of the environmental history and fluvial deposits of the Evan Water concluded that the camp of **Beattock Barnhill II** (and its later phases, III and IV) was constructed across gravel deposits and palaeo-channels that could only have formed after construction of the camp at **Beattock Bankend** across the river (Tipping 1997: 25). Therefore it seems probable that **Beattock Barnhill II** is Antonine or later in date and this dating can, by analogy, be proposed for **Torwood** and **Crawford II**, which appear to be in the same group of camps running from Annandale to the Upper Clyde Valley (illus 69). A sequence can therefore be identified at this complex, with **Beattock Bankend** representing a Flavian occupation of the area and quite possibly all four camps at **Beattock Barnhill** relating to campaigns in the Antonine and later periods. Their location a little distance from the fort at Milton, which demonstrated occupation in the Flavian and Antonine

periods (Clarke 1951), suggests that lack of proximity between camp and fort site need not necessarily be an indicator of non-contemporaneity. The likelihood that at least four camps at **Beattock** date to the Antonine period, or possibly even later incursions into Annandale, whereas only one is likely to be Flavian, suggests that many of the camps known in south-western Scotland could also date to the 2nd century AD or later, and indicates a significant amount of campaigning and troop movements in these periods (Jones 2009a).

The majority of forts in southern Scotland with camp gathering grounds in their vicinity were occupied in both the Flavian and Antonine periods, although some forts had a more limited date range. Evidence of short-lived or temporary occupation beneath Flavian forts is recorded at **Milton** and possibly **Castledykes**, both forts also with probable Flavian camps in their vicinity. At **Milton**, the excavator recorded a possible temporary camp under the fort and entertained the possibility that there had been an earlier occupation in the field to the south (Clarke 1951), although this site was never fully published. A possible camp was also recorded under the Hadrianic fort at **Birrens** during excavations in the 1960s, with Flavian finds located in the ditch fill (Robertson 1975: 73–5). Recent excavations at Carlisle have indicated one or two large ditches under the forts, which may represent the remains of temporary camps (M McCarthy pers comm). It appears, therefore, that temporary precursors to more permanent forts and fortlets were not uncommon, with the possible enclosure under the later fort of **Castledykes** perhaps also joining this group (Hanson 1991: 103–4, after Robertson 1964a). With several Flavian phases attested at Loudoun Hill, it is not surprising that various Flavian phases have also been proposed at the pivotal site of **Castledykes**. Several phases have also been suggested at Dalswinton, where the fort at Bankhead had two Flavian phases (Richmond & St Joseph 1957) and, although the presumed fort on the haughland at Bankfoot may have been more temporary in character (Hüssen *et al* 2009a), the likelihood remains that much of the occupation of the area was in the 1st century AD.

The indication of multiple Flavian occupations at Dalswinton, and possibly at Milton, suggests that Roman penetration of Annandale and Nithsdale may have been earlier than would be suspected from a reading of Tacitus (Hanson 1991: 61–8), particularly if there are also several Flavian phases at forts as far north as Loudoun Hill. The suggestion of an early penetration of the western routes into Scotland is reinforced by the dating of the timbers at the Carlisle fort to the time of the Governor Petillius

Cerealis in AD 72 (Frere 1990: 320; Caruana 1992: 101–3), which demonstrates how far north the army had established occupation in the early Flavian period.

The first phase of the fort at Milton (illus 180), lying above the possible camp, demonstrates an unusual T-shaped plan reminiscent of the staggered outline and in-turned gateways recorded in the first fort at Newstead, with which it is occasionally grouped (eg Hanson 1991: fig 14; Maxwell 1989: fig 4.8). The **Newstead** fort, lying at the point at which Dere Street crosses the Tweed, has been dated to the early AD 80s based on coins from the site (Richmond 1950: 5–7; RCAHMS 1956: 312–14) and is surrounded by up to ten camps now known or suspected within a kilometre (illus 183). Immediately east of the fort lies the ‘Great Camps’ area (after Curle 1911: 15–20), a succession of camps that overlap each other and intersect the east annexes of the fort. Although recent work by Bradford University has suggested that none of the camps currently recorded appears to be earlier than the fort, at least one had two phases of use (R F J Jones pers comm) and others may yet be earlier than the fort. If the Newstead fort does represent the first consolidation of newly invaded territory, then it is probable that some of the camps would pre-date its foundation, because the strategic importance of the site would have been long recognised. These camps currently await recognition. While at least one of the camps in this area may be early in date, this is not confirmed, and the final publication of the recent work at Newstead is eagerly awaited. But troops need not necessarily be quartered in a different location to the fort they were engaged in constructing, although use of the fort area would only be the case if those troops required the same or a smaller area.

The fact that **Newstead** was one of the first stopping points during the conquest of southern Scotland is surely indicated by the longevity of occupation of the site and the number and complexity of forts, annexes and camps. Therefore, a temporary camp housing reconnaissance troops prior to the decision to build the fort (and therefore any construction force) would be expected. The camps in the ‘Great Camps’ complex demonstrate repeated use of the area of land east of the fort for temporary occupation (Jones forthcoming 2011). This has parallels at **Lochlands** (illus 167), where camp III has produced evidence for up to three phases of use (Maxwell & Wilson 1987: 39). At this latter site, the same location was also used for **Lochlands IV** and **V**, with **Lochlands VI** likewise probably overlapping these and also **Lochlands I** and **II**. Thus both **Lochlands** and **Newstead** appear to have been favoured gathering grounds near the forts, to the

extent that earlier remains may have had to be slighted, if they had not been already. This is despite the fact that other suitable locations were available, as evidenced by the positions of **Newstead IV**, and **Lochlands I, II** and the **Lochlands Three Bridges** camps.

However, unlike the camp sequences at **Ardoch**, little work has taken place on camp intersections in southern Scotland and northern England, despite a certain amount of trenching by St Joseph and Maxwell on individual camps, and an increased level of small trenching by commercial archaeological units since the introduction of NPPG5 and other planning legislation (see Chapter 1). Bradford University’s work at Newstead focused on the area as a whole and the evidence for Roman and Native interaction, and was not concerned with the chronology and sequence of the temporary structures at the site. However, work did take place at Chew Green in Northern England in the 1930s, providing a sequence for that site (Richmond & Keeney 1937). Although reappraisal of the site following detailed topographical survey resulted in an alternative sequence to that proposed by the original excavators (Welfare & Swan 1995: 88–9), it did not change the basic premise that Chew Green I pre-dated Chew Green III. Chew Green I was the earliest Roman structure at this site high in the Cheviots and is almost square in form, has *claviculae* gates and encloses some 7.7ha (19 acres). This reinforces Maxwell’s contention that square camps tend to be earlier in date (Maxwell 1981: 28–9).

If Chew Green I is early in the sequence, then we might expect a line of similar camps up the marching route of Dere Street, which have yet to be found (Jones forthcoming 2011). Yet, the approximate distance from Chew Green to **Newstead** is about 35km, the 24 Roman miles that Vegetius observed that soldiers could march in a day, so an intermediate stop need not be necessary for the army. The plethora and complexity of the remains at **Newstead** are such that we cannot determine the sizes of several of the camps and possible camps outside the fort.

That there was a route west of **Newstead** across to the major gathering ground at Castledykes with intermediary stations at **Lyne** is clear, thanks to the location of camps and fortlets. But only **Innerleithen** and **Lyne I** can be grouped on this route, and may be Antonine in date: **Lyne I** lies outside an Antonine fort, whereas its Flavian precursor, Easter Happlew, lay on the opposite side of the river (illus 172). **Lyne II**, just to the east, was also proposed as possibly 2nd century and therefore Antonine (Greene 1999), but recent reassessment of the

finds suggests a Flavian date for this camp (Wallace pers comm).

Across in the Upper Clyde Valley, the fort of **Crawford** is surrounded by four camps, two north of the fort and two to the south across the river. The fort was occupied in both the Flavian and Antonine periods (Maxwell 1972) and thus can give us no clue as to the dates of the camps, although the location of the two immediately to the north (illus 72 & 108) suggests that they might have been occupied when the fort was in use. **Crawford II** to the



Illustration 72

Aerial view of camps III and IV at Crawford, lying just to the north of the Roman fort (visible in top left of image). The reuse of part of the perimeter of III by IV is clearly visible. Taken from the north-east in 1984. © Crown copyright: RCAHMS. SC1164050. Licensor www.rcahms.gov.uk.

south could be Antonine or later if it is part of the group with **Beattock Barnhill II** and **Torwood**, but could not have been occupied contemporaneously with **Crawford I**, which it overlaps. But if either of these camps dates to a period when the fort was not in use (their size is unknown owing to the partial nature of the cropmark evidence), then they could represent early Flavian or early Antonine troop movements in the area prior to the occupation or reoccupation of the fort. However, without dating evidence from the camps at **Lyne I** or **Crawford**, this

suggestion that camps a little way from forts, potentially across rivers, might not be contemporary with the forts remains supposition. Further corroborating evidence might come from **Househill Dunipace** (illus 144). This camp, grouped with the 54ha camps, could potentially be Severan in date (see above), and is assumed to be post-Antonine because of the relationship established at **Ardoch**. Although it lies close to the Flavian and Antonine forts at Camelon, it is across the River Carron, reinforcing the suggestion that the camp and fort were not occupied simultaneously. However, the fort at **Milton** in Annandale was also occupied in the Flavian and Antonine periods and, apart from a single small camp located to the south of the fort and a possible structure underneath it, the main camp cluster lies on the lower lying ground at **Beattock**, 1km to the north-west.

The fort at **Crawford** marks the point where the two Roman routes running up Nithsdale and Annandale converge. No obvious groupings can be discerned in Nithsdale, although again there is a camp (**Islafoot**) on the opposite side of the river from the fort at Drumlanrig (illus 114). This is located where the Nithsdale road splits into two, with one branch crossing the river and the other passing **Islafoot** en route to the Upper Clyde Valley. **Drumlanrig** fort is Antonine in date (Hunter 2005: 401–2) with suspected Flavian occupation (Maxwell & Wilson 1987: 19–20); two probable camps lie in the haughland to the south, but that across the river at **Islafoot** appears to be square in form. Whether or not the camp was occupied at a time when the fort was in use is unknown, but again, its position across the river when there was space on the haughland for a camp of this size would suggest that the fort was not the focus of the camp, or that the haughland south of the fort was already occupied or was not suitable. Its square shape suggests that it could be Flavian, following Maxwell's proposal (1981: 37–41), although this is not an absolute measure of date.

The cluster of camps around **Castledykes** facing the fort demonstrates the importance of this site as a gathering ground, but excepting the likely Flavian date for **Castledykes I** (with Stracathro-type gates), their dates are unknown (illus 101). Keppie & Maxwell suggested that **Castledykes IV** might be Flavian because of its potential overlap with the nearby fort (1991: 69), but this dating is unconfirmed. Some 2.5km to the north-west lies the camp at **Cleghorn**, where field walking has produced Trajanic and Hadrianic coins (Bateson 1989: 167). These finds were unstratified and although it might be tempting to propose an Antonine occupation of the camp on the basis of the coins, this cannot be confirmed. Farther west

from **Castledykes**, the presence of a Roman road leading towards Loudoun Hill attests to a routeway running west towards the coast, possibly near Ayr or Troon. A probable camp is recorded at **High Cauldcoats** on this road, with a further possible camp at **West Newton**, and it is likely that more camps were located in this area, but it has not been subject to as much detailed aerial survey as the eastern part of the country.

In the last twenty to thirty years since the publication of St Joseph's overviews and summaries, and also those by Maxwell, only a few more camps have come to light through aerial survey. More significantly, however, there has been a considerable amount of excavation on Roman camps. Indeed, Leslie's doctoral thesis highlighted the importance of excavation on temporary Roman structures (1995). While frequently being artefactually barren, excavations have provided some dating evidence, sometimes from stratified contexts, and field walking and metal detecting have produced occasional unstratified finds (a detailed discussion can be found in Hunter forthcoming), even if it is unwise to transfer the date of a stray find to the nearby site without stronger archaeological evidence of contemporaneity. Radiocarbon dates have been taken where the excavator has deemed this possible, although the general nature of these often precludes detailed chronological interpretation as few help narrow down the dates of features, beyond indicating a date in the Roman period or not (eg **Carronbridge**). However, the large-scale excavations at **Kintore** and the reasonably comprehensive radiocarbon dating programme undertaken at this site did produce a cluster in the Flavian period.

The majority of artefactual evidence recovered is usually dated to the 1st and 2nd centuries AD, with only a fleeting indication of activity in the 3rd century AD or later, although this generalisation is based on an extremely small number of finds.

The availability of occasional stratified artefacts and the establishment of relationships and sequences between camps mean that it has been possible to infer basic dates at a handful of sites and, by analogy, propose likely dates for other sites of similar morphology with coherent spatial distribution, even though the picture is undoubtedly more complex. This relies on the assumption that the dating of the artefacts will be accurate and relate to the date of the occupying army (and not, for example, represent relict finds), and that the army in turn was responsible for their deposition, rather than any activity by the local Iron Age tribes. The dangers of such assumptions are well known, along with the problems of dating sites on the basis of single artefacts. However, with the absence of a

plethora of finds from Roman camps, such exercises are not invalid.

In addition to the information that stratified and stray finds can provide, an increasing number of excavations on camps are furnishing evidence for reuse, whether indicated by a recutting of the perimeter ditches, entrance changes, repair of the rampart, or, at **Kintore**, radiocarbon dates and artefacts indicating a range of dates. These add up to a more complex picture of military activity than has hitherto been acknowledged by pigeonholing the remains into the various series and giving these specific dates linked to an historical framework. This complexity is also hinted at by the results from **Dunning** and its comparison with its neighbour at **Carey**. The camp at **Dalginross** also revealed evidence for recutting of the eastern Stracathro-type gate (Rogers 1993: 277–86), but St Joseph's notebooks give no clues as to whether evidence of recutting was observed elsewhere during his excavations on the perimeter ditch.

With the exception of the 25ha camps, which almost form an elliptical distribution (illus 62), the camp groupings outlined above are linear (illus 64, 66, 67 & 69). It is therefore assumed that the army must have reoccupied the same camps on its return from campaign. It has already been observed that the army does not appear to have deliberately dismantled many of its camps, owing to the survival of the remains. (Evidence from the Roman fort at Bearsden suggested that the ramparts may not have been slighted on departure, although the timber breastwork appears to have been pulled down and burnt (Breeze 1984b: 62–3).) While a timescale of a few weeks or months between outward and return marching and camp reoccupation is impossible to prove archaeologically, it does seem likely that the army would have saved labour and reoccupied their camps on the return journey rather than start again from scratch. This assumes that a camp was not originally used for such a prolonged period that it was left in a state unsuitable for immediate reuse. Certainly reoccupation of a camp, perhaps with a slightly different internal layout, might help to explain the irregular distribution of Roman ovens and pits within the camp at **Kintore**, and the reuse of some oven pits on a differing alignment. However, the internal (unexcavated) features visible on air photographs within **Dalginross** are on a far more regular alignment (illus 53 & 109), even though there was also apparent reuse of that camp, or at least recutting of the gate, possibly suggesting that any reoccupation was on the same layout as the earlier phase. It is perhaps likely that when an army reoccupied one of their earlier camps, they conformed to the same layout,

even though they would presumably have been marching in the opposite direction, and therefore the orientation of the camp would not have faced the direction of march. However, if a slightly different army reoccupied a camp, then it would probably opt for a different layout, and this is one possible explanation for the largely erratic interior arrangement of pits and ovens at **Kintore**. Furthermore, an army could conceivably be a different size on return from campaigning, owing to, for example, potential losses of troops and/or the addition of prisoners. St Joseph suggested that **Kintore** was constructed during Agricola's seventh season (1973: 232; 1978a), but the excavated remains demonstrate complexity and the camp could have been originally constructed and/or reoccupied at any time in the Flavian period.

Such complexity in the archaeological record demonstrates the caveats that must be placed on any dating evidence obtained from camps, as noted with the camps at **Carey** and **Dunning**, which morphologically and spatially do appear to be related. Nevertheless the few datable finds and radiocarbon assays from camps are starting to build up and reinforce an archaeological picture previously largely constructed on the basis of camp associations, site sequences, geography and the overall likely historical context. Further artefacts have been identified at a number of camps, such as fragments of amphorae or storage jars in the pits at **Inchtuthil**, and tiny fragments of mortaria and coarseware at **Ardoch**, but these were too small to be precisely identified and dated (Frere 1985b: 230; St Joseph 1970a: 167–9).

Owing to the lack of dating evidence from camps, other features such as morphology, gate-type and location relative to dated forts, fortlets, watchtowers and roads, are regularly used to help assign dates to camps. Our knowledge of campaigns in the 2nd century AD in northern Britain is comparatively rich when it comes to the more permanent installations, but poor when it comes to marching camps. With the exception of **Dunning**, few 2nd-century finds have been recovered north of the Antonine Wall, except for sporadic stray finds found in unstratified contexts (Hunter forthcoming). For example, a coin of Hadrian has been found near **Forteviot** (Bateson 1989: 166) and one of Trajan at **Grassy Walls** (Macdonald 1918: 232–3), and finds from the 1st to 3rd century AD have been found at **Dalginross** (Macdonald 1918; 1924; Woolliscroft 2002c) and **Carpow** (eg Dore & Wilkes 1999: 483–4), although at the latter two sites the finds probably relate to the nearby forts rather than to any temporary occupation of the area. Along the Antonine Wall, unsurprisingly, 2nd-century finds have been located (at **Dullatur** and **Little Kerse**).

South of the Antonine Wall, datable finds at camp sites are few and far between.

The camp at **Girvan Mains West** is unusual in that a fragment of glass dating to the late 1st century AD was recovered from its ditch during excavations (Maxwell & Wilson 1987: 34–5). This camp intersects its eastern neighbour, but the relationship between the two is unknown (illus 136). The discovery of the glass in **Girvan Mains East** has been used to give weight to the theory that the site relates to Agricola drawing up his troops and contemplating an invasion of Ireland (Tacitus *Agricola* 24; Maxwell & Wilson 1987: 35). However, a site farther south on the Rhins, or possibly Loch Ryan, would make a more suitable departure point for any potential offensive across the Irish Sea, and yet again the attribution to Agricola is unproven. Nevertheless, the site is a good location for the meeting of land and sea forces on the west coast.

Indeed, there are a number of camps in south-western Scotland which appear to face the coast or guard important river estuaries. The **Girvan** camps lie close to where the Girvan Water meets the North Channel. Similarly, several camps lie on both sides of the Solway Firth and some could relate to sea-based operations and/or supply of the bases in Dumfriesshire, such as that on the Annan at Dalswinton. Tacitus referred to Agricola crossing with his fleet somewhere in south-west Scotland (*Agricola* 24), but there is debate about what the translation of the Latin actually means because of a suggested emendation of the text (Ogilvie & Richmond 1967: 235; Wellesley 1969: 267; Mattingly & Handford 1970: 146–7; Birley 1999: 82). It is possible that the phrase '*nave prima transgressus*' refers to either a crossing of the Solway ('Itunam') or the Annan ('Anavam') and need not have been referring to the fleet but to a land crossing of either river farther upstream (Wellesley 1969: 267). That a land route from Carlisle was also used is clear by the presence of several camps at **Kirkpatrick-Fleming**, **Birrens** and **Middlebie Hill**. But one or more phases of conquest could have used the fleet in their operations. Along the south side of the Solway coast, camps are recorded at Brackenrigg and Knockcross (Welfare & Swan 1995: 32–4, 40) and on the north side they are known at various points including two, one either side of the mouth of the River Annan, at **Hillside Annan** and **Annanfoot**. Both these camps have been subject to small-scale excavations, but have as yet revealed no indication of function or date, despite claims of an association with Agricola (Maxwell & Wilson 1987: 35). Farther west, coastal camps are sited overlooking river mouths: **Ruthwell** close to the Lochar

Water and **Ward Law** on a high point above the entrance to Nithsdale. We might, therefore, expect to find camps at the mouths of other rivers, such as the Dee, but more aerial survey in dry years coupled with ground-based fieldwork is required. There are one or two antiquarian accounts of camps along the coast, but these either remain unconfirmed or have been disproved. **Glenluce** is on the route of a Roman road, visible as a cropmark, and is also at the crossing point of the Water of Luce. Presumably more camps wait to be found near an elusive fort at Loch Ryan, the direction in which the Roman road appears to be heading (illus 21).

The camps at **Ruthwell** and **Ward Law** lie only 7.5km apart and, although only three sides of **Ruthwell** are known (illus 194), its cross dimension is the same as at **Ward Law**. The camps could represent successive bases on a campaign along the southern coast, but they are sited rather too close together to be part of a sequence. They could have been contemporary storage bases or formed another function relating to the meeting of land and sea forces. **Ward Law** demonstrated a rock-cut ditch on excavation, which suggests a level of permanency and certainly an extreme amount of labour for a temporary structure. It also has a series of outworks which appear to attach the camp to a local hillfort, and four *tituli* outside one of the camp entrances (illus 39 & 209). The reason for such multiple gate protection is unclear, Maxwell & Wilson suggesting that the camp may have been used by troops on manoeuvres (1987: 24). If this camp were involved in the training of troops, this might be one explanation for the strange outworks south of the camp, which also display an additional gap protected by a *titulus*. However the strategic nature of the site on a hill overlooking the confluence of the Nith and Solway should not be overlooked. The Roman fortlet of Lantonside lies on lower ground just over 1km to the west, and this fortlet was provided with two large annexes. The fortlet has been suggested as Antonine in date (Maxwell & Wilson 1987: 23), but whatever the date of **Ward Law** and Lantonside, they could represent successive garrisoning of the estuary at a point where supplies could be transported to the forts of Carzield and Dalswinton lying farther up the Nith. It is possible that **Ward Law** (and possibly **Ruthwell**) relates to the Flavian occupation of the area and Lantonside to the Antonine garrisoning. This is purely hypothetical, but if **Ward Law** and Lantonside performed the same function at different periods, perhaps here we have an indication of apparently different structures with differing morphology and modern-day classification performing essentially the same function for the Roman army (Jones

in prep). **Ward Law** and **Ruthwell** and other coastal camps look like temporary camps, but it may well be the case that they, and other camps elsewhere, had a more prolonged occupation, although partial geophysical survey at **Ward Law** in 2009 failed to reveal any evidence of internal features (Hüssen *et al* 2009b).

North of the isthmus, other coastal camps are recorded at **Dun** and **St Madoes** and possibly **East Haven**. Only part of **St Madoes** is known (illus 197), but its morphological characteristics suggest that it may have been similar in size and proportions to the camp at **Dun**, which lies on the north shore of the Montrose Basin (illus 117). This latter camp has been suggested as a stores depot for Flavian operations up the east coast (St Joseph 1973: 225–6; Maxwell 1981: 45), when Tacitus records that Agricola pushed forward by land and sea in his sixth season, with infantry, cavalry and marines often meeting in the same camp (*Agricola* 25). Maxwell discounted **Dun** as a meeting place for such a force because of its small size, but suggested that it was involved in the supply of garrisons in the forts after the battle of Mons Graupius (1981: 45), although Hanson has commented that it could either have been a defended stores dump (1978a: 149n) or provided temporary accommodation for elements of the fleet (1991: 126–7). A fragment of samian found in small-scale excavations suggests a Flavian date for this camp (St Joseph 1973: 225–6). Certainly some link between land and sea campaigns seems a likely function because of its shore side location at the most convenient nearby sheltered embankment for bringing supplies from the coast to the fort at Stracathro (9.5km to the north-west) and potentially some of the other forts in Strathmore. If **St Madoes** belongs to the same period of campaigning as **Dun**, owing to its possible similar size and morphology, then an identification of the former as a bridgehead fort of the 3rd century AD could come into question unless the site was reused. A cropmark, visible at **East Haven** just to the south of Arbroath, could be another coastal camp between those at **St Madoes** and **Dun**, but this cannot yet be confirmed.

If these northern coastal camps also represent stopping places for the fleet and the supply of the army, then more camps at suitable coastal points should be expected. However, land campaigns on the east side of Scotland rarely seem to have followed coastal routes, with the exception of the Carse of Gowrie on the north side of the Tay estuary. This is in contrast to the south and west of Scotland, with a few camps recorded along the Solway and Clyde Firths. This is due partly to the geography of Scotland, with the south-west dominated by considerable areas of upland,

whereas Strathmore is lower lying. **Girvan** is the first point on the west coast, north of Loch Ryan, where it would be feasible to site a camp. It seems likely that Agricola, and no doubt his predecessors and successors, deployed the fleet in tactical support during their conquests of northern Britain, and, indeed, Agricola is credited with sending the fleet on a circumnavigation of the island (Tacitus *Agricola* 38). Concrete archaeological evidence for the presence of the British fleet is lacking, but it seems likely that the Roman forces would have deployed the fleet in tactical support in areas where the terrain rendered the supply of land campaigns difficult.

Most coastal camps appear to be relatively small, with the exception of the two at **Girvan Mains** (illus 136) (and at **Carpow** and **Invergowrie** on the Tay – illus 97 & 151). However, there are a number of relatively small camps of between 0.5–2ha in size known across southern Scotland. At **Kirkpatrick-Fleming**, excavations revealed a ditched structure to the west of the large camp. This structure has the appearance of a very small annexe to **Kirkpatrick-Fleming I** or possibly a further small camp (**Kirkpatrick-Fleming III**), extending only 60m from the western perimeter of its larger neighbour, although its north or east sides could not be located (illus 162). Pottery was recovered from the ditch of this feature, dated to AD 100–50 and probably Hadrianic rather than Antonine in date (Leslie forthcoming). No clear link between this annexe-type feature and the camp could be identified, and, therefore, the dating of the pottery in its ditch cannot be extended to the dating of the 25ha camp of **Kirkpatrick-Fleming I**. However, if this additional ditch does represent a feature contemporary with the occupation of the main camp, possibly even housing a detachment of troops who arrived to join the main force after the construction and layout of the camp or arrived on site before the main army, then this could have implications for the dating of the 25ha group as a whole. However, the excavator considers that this additional feature could be a further camp rather than an annexe, and therefore not necessarily contemporary with its neighbour (A F Leslie pers comm). Although **Kirkpatrick-Fleming I** has similar dimensions to the 25ha group, it is geographically removed from the others. Similar size need not necessarily mean the same army on the same campaign, but merely adherence to the same rules of castrametation. It would be curious if an entire series of camps between the English border and the Forth–Clyde isthmus still awaits identification, but not impossible. Nevertheless, it seems that the 25ha camps north of the Forth–Clyde isthmus do represent a coherent group, but possibly one that assembled on the

isthmus, perhaps at **Lochlands**, before moving forward to Strathmore and the Carse of Gowrie. This scenario would therefore exclude **Kirkpatrick-Fleming** from this series or campaign group, while noting its morphological likeness, and this seems the most likely state of affairs at present.

The pottery recovered from the excavations of **Kirkpatrick-Fleming III**, is intriguing. It could be the remains of an enclosure which housed a small detachment of troops travelling between Hadrian's Wall some 20km to the south-east and the Hadrianic fort of Birrens, less than 8km to the north-west. Although its overall dimensions are unknown, it seems likely that it enclosed between 0.36–0.6ha, and similar sized camps are also recorded in south-west Scotland at **Ellisland** (across the Nith from **Dalswinton** – illus 112), **Carronbridge**, **Crawford IV** and **Gallaberry** (illus 98, 108 & 132). While camps of this small size could just fit in amongst the larger probable practice camps recorded in Wales (Stafford Common and Rhyd Sarn II, Davies & Jones 2006: 175, 186–7), they are not proposed as such and probably represent small units undertaking reconnaissance and manoeuvres. It has already been noted that **Inchtuthil I** (illus 145) probably represents a small reconnaissance force on the plateau, possibly the earliest camp at that location (section 7e) and the number of small camps now recorded across Britain, and indeed on the continent, demonstrates that small detachments were moving around regularly, but their function probably ranges from troops undertaking reconnaissance moving between bases, to those on manoeuvres. Maxwell has commented on the similarity between the size of camp annexes and the small camps which cluster around the legionary bases at York and Chester (2005), and it does seem likely that small units were operating around the country constructing defensive perimeters for their encampments. The small potential camp at **Boghall** (illus 215) near Edinburgh lies a short distance from the camp at **Carlops Spittal**, which exhibits a small annexe or attached camp (illus 70 & 96). It is possible that the camp at **Boghall** and the annexe at **Carlops Spittal** may have been linked or performed similar functions.

It is often assumed that a small camp which reused the perimeter of a larger camp is likely to be the later of the two, and indeed at **Ellisland I & II** and **Crawford III & IV** there is evidence for two camps sharing part of the defences. **Beattock Barnhill IV** reuses part of **Beattock Barnhill II**, and therefore must be Antonine or later, given the palaeo-environmental evidence discussed earlier (illus 85). That at **Kirkpatrick-Fleming III** may relate to troop movements in the Hadrianic or early Antonine

period, but very few dates can be attributed to these small camps, several (eg **Crawford IV** and **Castledykes III**) located outside forts which had occupation in both Flavian and Antonine periods. Only Flavian dates have been proposed for the forts at Dalswinton, and the two small camps at **Ellisland** lie opposite, across the River Nith. Elsewhere possible small camps are recorded at **Murder Loch** and **Shawhead**. But their distribution is also not confined to south-western Scotland, with a number of small camps known on Dere Street (eg **Oxton II** – illus 189 and **Lugton** – illus 171) and the Gask Ridge (**Easter Powside** – illus 122), and others in various parts of England (but with a notable cluster along Hadrian's Wall), and indeed on the continent (eg Horn 1987: 333; Scollar 1965; Kuzma *et al* 1996; Visy 2003: 34–8).

There is no reason to add any further classifications to those proposed in Chapter 2.2 because it seems likely that these small camps represent troops on the march, but whether they were engaged in the conquest of new territories, exploration or policing of occupied territories, movement between permanent bases and/or general manoeuvres is not currently possible to say, and no doubt they performed a mixture of these functions (Jones *in prep*). However it is interesting to note that, although small groups of men were clearly moving around the country on a regular basis, very few represent groups of troops beyond the frontier areas, the main exception being the annexes to the 25ha camps in Strathmore (eg illus 73 & 128). If these did perform a similar function to the small camps located to the south, then it is possible that they housed a small force that travelled with the main army but required their own camp. One likely force would be the scouts or *exploratores*, which are regularly attested in the literature (Austin & Rankov 1995; Jones 2009a). These could have been sent out in advance of the main force to assess suitable camp sites and gather intelligence and, in the case of the 25ha camps, they may have set up camp some time prior to the arrival of the large army who then proceeded to camp alongside. It is possible

that the relationship between the so-called annexes and larger camps could be established through excavation, thereby indicating whether these may have held scouts. Smaller camps elsewhere would represent small units potentially scouting around the country independently of a larger army, or policing occupied territory. Austin & Rankov proposed that units or detachments may have been temporarily assigned to scouting duties, but that standing units of *exploratores* may have existed from the 2nd century AD (1995: 191). There is also evidence from the Vindolanda Tablets for troops being stationed away from their main base (Bowman & Thomas 1991; *Tab. Vindol.* II.154). It seems probable that we have a hint of



Illustration 73

Aerial view of the SSW side and attached annexe at Forteviot, taken from the south-east in 1984.
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the activities of some of these detachments in some of the smaller camps.

Therefore, it can be observed that there is a plethora of small camps in the territories within Britain that were conquered and held by the Roman army, but they tend to be grouped with larger armies when operating in areas beyond the frontiers, such as north of the Antonine Wall. While the annexes to the 25ha camps lie in Strathmore in an area that was garrisoned by the army in the 1st century AD, the camps may be later in date and therefore relate to

an army that was moving through an area that was not conquered or held at that point in time. It is evident from the remains in southern Scotland that the army still needed to construct perimeter defences around their camp sites in areas that were presumably garrisoned and controlled by the Roman forces south of the isthmus. This hints at a lack of stability in the relationship between the Roman forces and local peoples (Hodgson 2009).

10.2 Conclusions

There does appear to be a difference between the camps within the conquered part of the province and those beyond the Antonine frontier, although admittedly this is a generalisation based on the currently known distribution of camps, which is largely biased by the programmes of aerial survey conducted by Cambridge University and the Royal Commission, which have, until very recently, focused more on eastern and north-eastern Scotland than the south-west. However, it is easier to discern patterns of troop movements in terms of 'series' of camps north of the Forth–Clyde isthmus than it is to the south. The camps in southern Scotland are more varied in terms of size than those in the north, which is why only a few groupings can be discerned. Only 30% of camps north of Hadrian's Wall lie north of the Antonine Wall, and that figure is reduced to 24% if those on the isthmus at **Lochlands** are removed. Yet 46% of these northern camps can be allocated to three of St Joseph's groups (25ha/63 acre, 44ha/110 acre and 54ha/130 acre). By contrast, south of the isthmus, but north of Hadrian's Wall, less than 10% of the camps have been tentatively grouped into some form of series. One reason for this probably relates to the distribution of the permanent garrisons that were stationed in conquered territory. While no doubt there would have been groups of camps representing early penetration of the territory in each conquest phase, the length of occupation and density of garrison forces thereafter would have resulted in more examples of smaller groups of men travelling between the permanent stations and, moreover, potentially moving on in groups of different sizes after arriving at a permanent fort. The two groups identified on Dere Street (illus 67) travel past a major base at **Newstead** and the Annandale–Upper Clyde group pass **Milton** before arriving at **Crawford** (illus 69), but there are no major lines demarcating the route of armies such as those proposed north of the isthmus.

This difference between the camps north and south of the Antonine Wall could be explained by a variety of factors, not least topography and the numbers of camps that have not yet been identified. But the diversity visible

in the southern Scottish and northern English camps does suggest that the army might have grouped and regrouped into forces of varying size, potentially at the major gathering grounds, when moving around garrisoned territory. This diversity is less visible north of the Antonine frontier, where the armies clearly campaigned in large forces, and where lines of march can be identified. The numbers of camps north of Hadrian's Wall, along with the number of forts and fortlets, demonstrates the continued threat that this area was seen to have in the eyes of Rome, and the large number of forces that were required to travel through and garrison the country. Many of the camps probably relate to policing and scouting activities by the conquering army. The distribution of camps must give some indication not only of the areas of resistance to Rome, but also supply lines (particularly clustering along Roman roads south of the isthmus) and the availability of provisions and fodder for the army.

Indeed, information which is now being gleaned from the excavations at **Kintore** has started to build up a picture of a campaigning army, providing clues as to the layout of a camp, its function, the garrison housed, the length of occupation, army supply and provisions, the Roman military diet while on campaign and other details about a Roman force in the field (Cook & Dunbar 2008; Jones 2009a). Although it might have been argued that a significant amount of material from the interior of **Kintore** would be more suggestive of permanent rather than temporary occupation, with the quantity of artefactual remains reflecting longevity of habitation, there can be no doubt from its size and location that its occupation was temporary in nature, and that what we do indeed have here is a marching camp. It seems likely from the length of occupation indicated by the number of oven firings that some marching camps, such as **Kintore**, were in use for several days or weeks. The notion that all marching camps were brief one-night-only structures should be dismissed. While some camps will have had a very short occupation period, the length of time will depend on the purpose of the camp and the orders being followed by the troops housed within its perimeter. Furthermore, construction and siege camps, by their very nature, will have been occupied for as long as was necessary to complete the building or siege (or until the decision was taken to abandon the project). It would be expected that longer occupation would result in more internal features being created, such as ovens and pits, and in more rubbish being generated, producing artefactual remains. Whether or not **Kintore** represents an army on active campaign or moving through territory, liaising with the local tribes and

potentially collecting hostages and slaves, is not currently possible to ascertain.

The finds from **Kintore** indicate the range of items that the army carried on the move, from equipment for gathering fodder to wagons, carts and containers. The survival of metal items in the ovens at **Kintore** may indicate that these were originally attached to wooden objects scrapped for use as a fuel with the metal fixings still attached (Hunter & Heald 2008). One of the metal hinges recovered during the excavations was probably from an upright door rather than the lid of a chest (Hunter & Heald 2008). The possibility that the Romans carried prefabricated structures such as domed oven roofs while on campaign has been suggested in Germany (Gechter & Wentscher 1988, quoted in Hammer 2003: 25). While this seems an unlikely scenario, particularly the transportation of an oven dome which could easily be produced on site, only further work in terms of excavation and artefact analysis will ascertain whether some of the basic elements to enable, for example, the construction of a frame for a building, were actually transported by the army on wagons while in the field. Although the suggestion that the army transported or reused timbers for the building of forts has been dismissed (Hanson 1978b: 298–302), the presence of the **Kintore** hinge and also two wall hooks (Hunter & Heald 2008) does suggest some form of upright construction. Whether or not such fixtures were used to enable the quick erection of a basic timber frame for a high-status building such as the camp headquarters, perhaps with some timber transported en route, or came from a large Roman wagon with a hinged door is not possible to say, although the evidence from forts (Hanson 1978b) would favour the latter option. Trajan's Column illustrates elaborate tents, rather than buildings, for officers' accommodation and the headquarters building (illus 3).

We have little information as to how the Roman soldier viewed the temporary camp; presumably he did not expect to occupy the structure over a long period of time, although Vegetius informs us that the camp was a 'walled city', which the army carried about everywhere (*Epitoma* I.21). The regularity of camp layout would have provided continuity for an army on the move, with units presumably occupying the same part of the camp at each stop, although flexibility in overall camp design is apparent. Housing units and groups together would reinforce solidarity and community (Goldsworthy 1999: 202). Furthermore, its layout was designed 'to provide a battle drill of operational and administrative behaviour which melded efficiently with the excellent Roman qualities of high military training and discipline' (Peddie 1994: 60).

Marching camps were placed in land that was occupied and farmed by the local communities prior to the Roman invasion, their very size reflecting the extent to which the landscape had already been cleared. The relationship between the Roman army and these peoples is an area for ongoing and future exploration. On the assumption that land in Scotland, particularly the good land preferred by the army for their bases, was already in some form of ownership by the Iron Age tribes, then negotiations or possession of land by force must have come into play. Certainly negotiation and diplomacy are attested to in the Roman world, with treaties established and gifts and bribes exchanged (Campbell 2001). It is reported that Lupus bought off the Maeatae in around AD 197, presumably through some form of treaty negotiations (Cassius Dio LXXV.5.4), and that Lupicinus probably negotiated peace in AD 360 (Ammianus Marcellinus XX.1.1). However, it seems unlikely that much in the way of negotiation took place to arrange to occupy land during a period of armed conflict, the evidence from the location of camps indicating that they were sited in the most suitable places for the army, and any concerns by the population regarding the location of military halting grounds in their vicinity would have been ignored. The army must have relied on the local communities for at least some of its supplies in the form of taxation, although it could have carried basic foodstuffs and supplies to last for a certain period of time. Goldsworthy argued that the army 'existed to wage war' (1996: 11), but it also would have existed to self-sustain, and if this sustenance and domination of the local tribes could be achieved without actual warfare and the loss of expensively trained troops and animals, then so much the better. Previous research, such as excavations at the fort at Elginhaugh, indicates taxation of the local population in kind through the provision of animals, with the final phase at this fort serving as an enclosure for animal collection (Hanson 2007).

The position of Roman marching camps might give a clue as to the density of the local population and the areas of resistance to Rome. Identification of contemporary Iron Age settlement is problematic, but recent surveys of settlement densities in south-east Perth (RCAHMS 1994) and eastern Dumfriesshire (RCAHMS 1997) provide a basis for comparanda. However, in neither case can it be observed that the Roman army deliberately placed marching camps, nor indeed forts, in obvious centres of population. The river valleys of eastern Dumfriesshire were clearly areas that saw a considerable amount of later prehistoric settlement (RCAHMS 1997: 128, 148), and,

although there was a significant Roman presence in this area, not all valleys saw the passage of the Roman army. A similar situation can be observed in south-east Perth, where, although lines of march can be observed on both sides of the Sidlaw Hills, there does not appear to be an obvious correlation between Iron Age settlement and Roman military activity (RCAHMS 1994: 49, 62). In both these cases, the army tended to site its camps on relatively low-lying terraces close to water sources, the main exception being those which flank the Roman road north-west from Carlisle which cross over the watershed to Annandale. The main strategic concerns for the location of a camp does appear to be the availability of a suitably sized area of level ground and proximity to water sources.

Yet the campaigning armies had an impact on the landscape of Scotland. Considering the large area taken by some of the camps, it is surprising that more features of Iron Age date (whether pre- or post-Roman) cannot be identified in their interiors, although this observation is largely based on the aerial evidence. Possible souterrains can be identified within the camps at **Inverquhar** and **Battledykes**, **Oathlaw**, but the evidence is not conclusive. Furthermore, **Newstead V** has at least three enclosed settlements within its interior, but again the dating of these is unknown and further information is awaited (illus 167). That there was interaction between the Roman army and the local peoples is evidenced by occasional finds and hoards on Iron Age sites. For example, recent excavations at Birnie on the Moray Plain have uncovered two coin hoards alongside numerous other Roman artefacts, and suggested that the site was of considerable status and importance (Hunter 2002). The nearest suspected camp to Birnie is that at **Bellie** (illus 214), but the dating and indeed location of this camp (or camps) is uncertain. The latest date from the coin hoards at Birnie is AD 196 (FHunter pers comm), which fits into the historical context of a 'buy off' of the local tribes under the Governor Virius Lupus (Cassius Dio LXXV.5.4). However, how this material reached Birnie is unclear, with no current evidence for a late-2nd-century army marching this far north, suggesting that the local community brought the material to the Moray Plain. The indications that Birnie may have been a high-status site are not apparent from the cropmark record; it is indistinguishable from the many unenclosed settlements in the Moray Plain.

A hint at the attitude of the local population to the Roman invaders could be seen in the survival of the monuments. The number of camps that survived to be recorded as earthworks or partial earthworks in the modern era is relatively high, with more removed by ploughing and land improvements from the medieval period onwards. Yet it would have been possible for the local population to force the rampart of the camp into the ditch if they wished to obliterate the evidence of the occupation. The visibility of the camps in the landscape was a testament to and reminder of the presence of the Roman army. The apparent absence of settlement in the immediate vicinity of the camp at **Kintore** in the first half of the 1st millennium AD could be due to a number of factors, ranging from fear of the return of the army or some form of land ownership to the perception that the land was 'tainted' by association with the Roman invaders.

The potential number of Antonine temporary camps in south-west Scotland could belie the notion that this was an area conquered with relative ease. Even if many of the camps relate to policing and movement around the territory while the Antonine Wall was in operation as a frontier, there may still have been the need for the Roman army to flex its muscles as a result of continued hostility towards the Romans present in the Iron Age tribes that lived in this part of Britain. The dense network of fortlets in Annandale and Nithsdale might imply that the army needed to keep a close watch on difficult territory, and it has been observed that many had unusually strong defences (Symonds 2008). Hodgson has proposed that there was trouble in south-west Scotland in the 150s (2009) which may have precipitated the return of Roman forces to the Tyne–Solway isthmus. Perhaps this can also be hinted at through number of fortlets and camps. Further work is required on Iron Age sites in southern Scotland to try to determine what the relationship was between the two groups, although a start was made through the excavations at **Carronbridge** and **Newstead**. An army which constantly moved around the territory must have had an effect on the local population, even though some of the camps would have represented an army on manoeuvres which generally adopted a policing role rather than making blatantly hostile incursions into foreign territory. Further assessment of the artefactual evidence and excavation of sites like **Carronbridge** will provide more depth to the picture.

Gazetteer

Introduction

This gazetteer includes all Roman camps known in Scotland up to 2009, with an addendum for one discovered in 2010. This is followed by two shorter gazetteers of sites classified as ‘probable’ and ‘possible’ camps – the distinction between the three overall classifications (definite, probable and possible) depending on the quality of the information available. For example, a couple of sites claimed as camps in antiquarian sources are included as ‘possible’ camps because the claims may have some validity.

Other sites, previously claimed as Roman camps but now discounted, are not included here; for these the reader is directed to trove.scot, the online database of Historic Environment Scotland (HES) and to the author’s unpublished PhD thesis (Jones 2006).

The gazetteer is structured in alphabetical order, with the name of the camp and any alternative names, followed by the Ordnance Survey National Grid Reference (NGR) and National Record of the Historic Environment (NHRE) ID number (comprising 1:10,000 map sheet number and site number).

All known and most probable camps are provided with plans; possible camps are only illustrated where these appear on other drawings. Cross-references to other images are provided where possible. Owing to the sheer size of many of the camps, it has not been possible to illustrate them all at the same scale, and the plans vary from 1:5,000 to 1:12,500. For a comparison of all camp plans at the same scale, see earlier illus 47.

A standardised depiction has been adopted for all the plans. Where an upstanding earthwork is known, a double line has been used; a single line indicates remains recorded from crop markings on air photographs. A dashed line for a section of a site indicates that part of the perimeter has been recorded either through excavation (eg Burnfield, Lochmaben, Logie Durno) or geophysical survey (eg Dalswinton). Other features, particularly cropmarks, have been depicted in grey where necessary (eg where these are believed to be Roman in date, or add significantly to our understanding of the site, or have been mentioned in the text). In order to clearly depict the camps, their interiors have been shaded where possible. Some camps of which the full perimeter is unknown have also been shaded, in cases where it is possible to suggest the extent (eg Innerleithen).

KNOWN ROMAN CAMPS

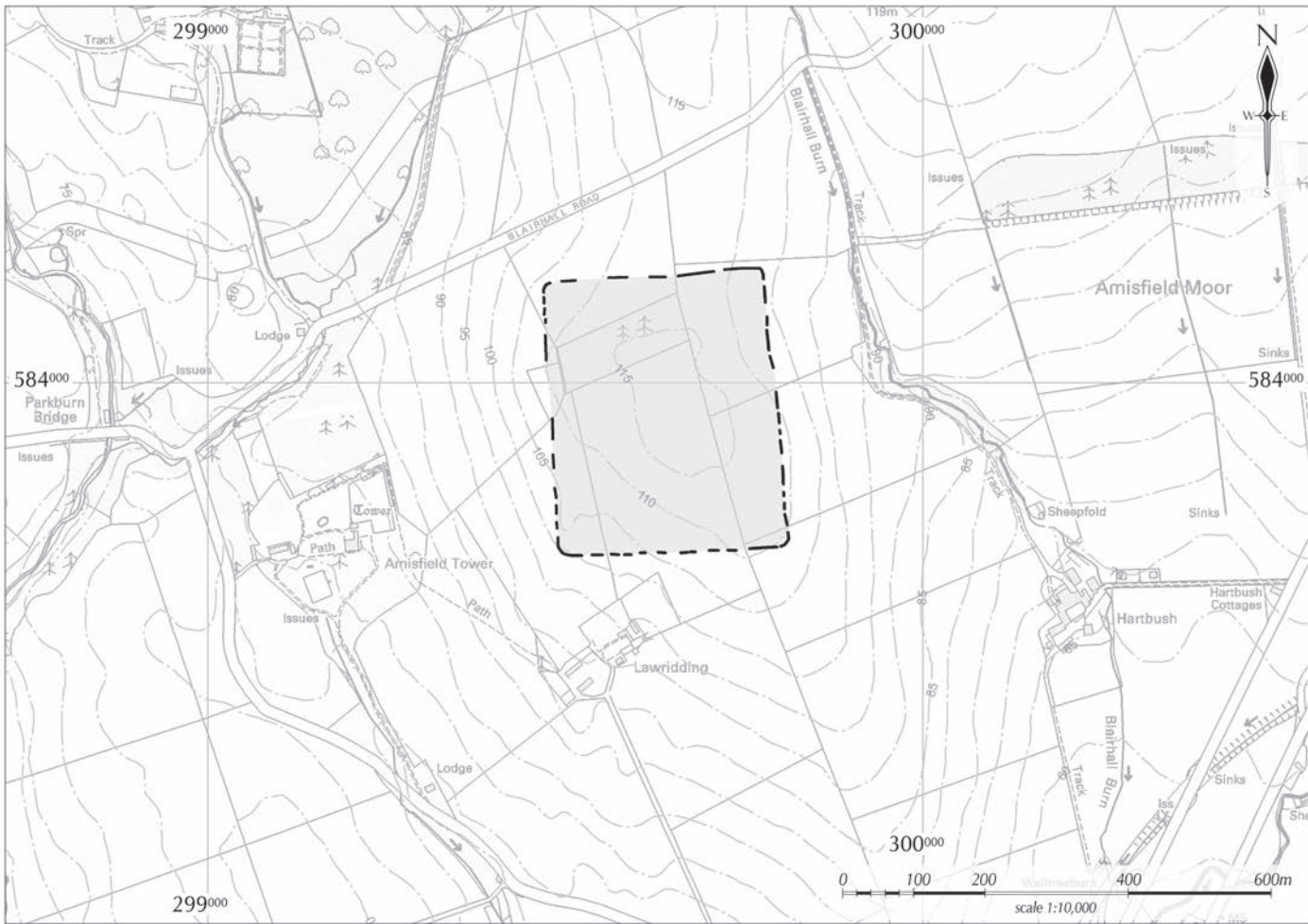


Illustration 74

Amisfield Tower. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Amisfield Tower (illus 47 & 74)

NX 9964 8395 NX 98 SE 70

First discovered from the air in 1984 (Maxwell & Wilson 1987: 40), the camp at Amisfield Tower encloses the summit of a low hill close to the presumed line of the Roman road from Annandale to Nithsdale. It measures

some 385m from north to south by 316m transversely, enclosing around 12.2ha (30.1 acres). Most of the site has been recorded in pasture and no gates are currently known.

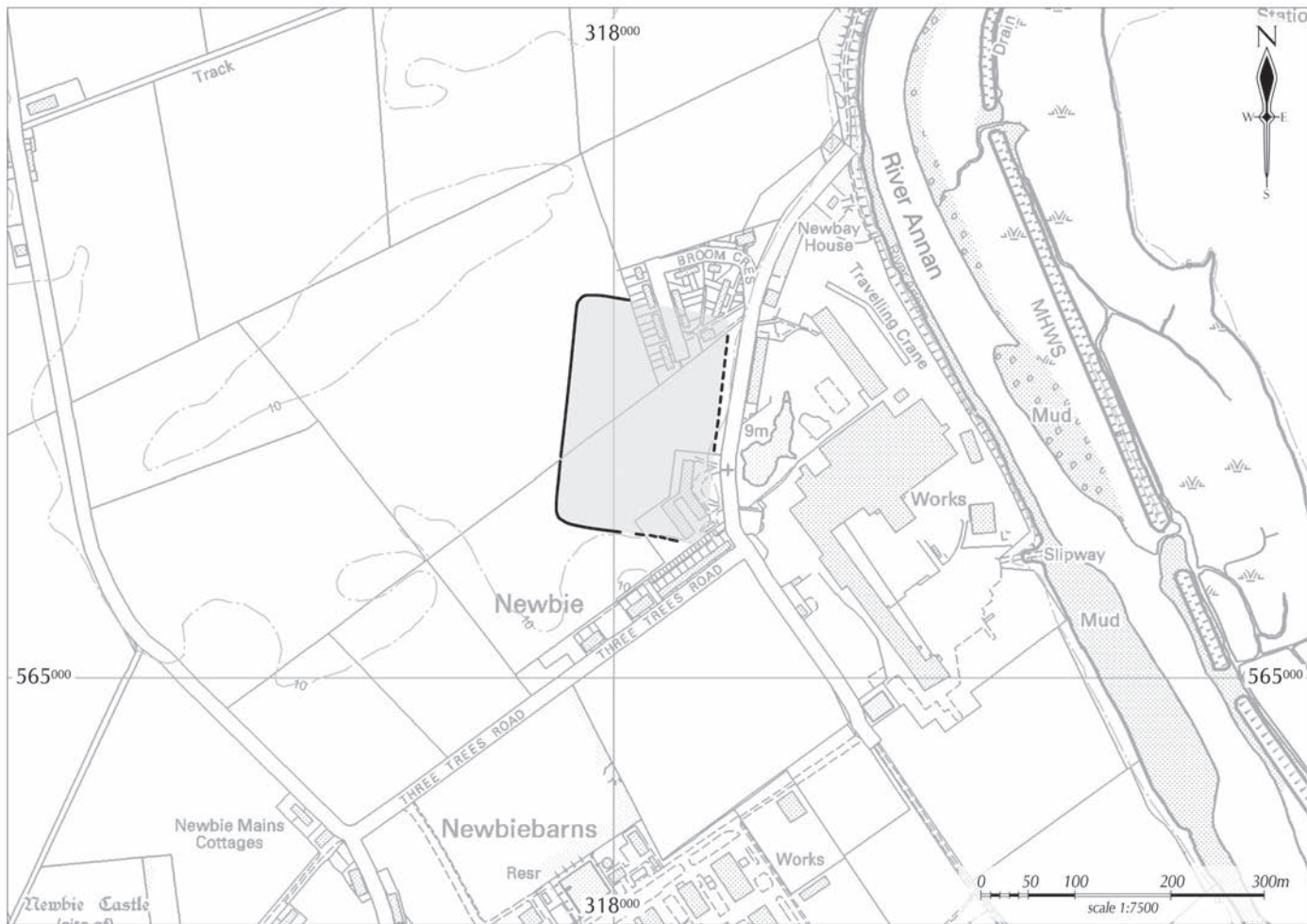


Illustration 75

Annanfoot. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Annanfoot (illus 47 & 75)

(Newbie, Waterfoot)

NY 1802 6526 NY 16 NE 22

First recorded in 1977 during aerial survey by Barri Jones (1979), the camp at Annanfoot is located on the west side of the River Annan, close to its confluence with the Solway Firth. Parts of three sides of the camp have been recorded as a cropmark, with the location of the east side recorded through excavation (Jones 1995; Gordon & Rees 2004). The camp measures some 241m (from north to south) by 159m transversely, enclosing some 3.8ha (9.5 acres). There is no break in the west side for an entrance, but there is a possible gap in the cropmark on the south side.

In addition, Jones recorded further linear cropmarks, including an irregular outer ditch, but none of these cropmarks has the appearance of Roman work, despite a section of the 'outer ditch' recorded as 2.9m wide and 1.4m deep (Jones 1995). The east side was noted as being up to 1.8m wide and 0.9m deep (Jones 1995); later excavations recorded that it was up to 1.5m wide and 0.96m deep (Gordon & Rees 2004). These also recorded a severely truncated post-hole in the interior of the camp, but there was no dating evidence (Gordon & Rees 2004: 8).

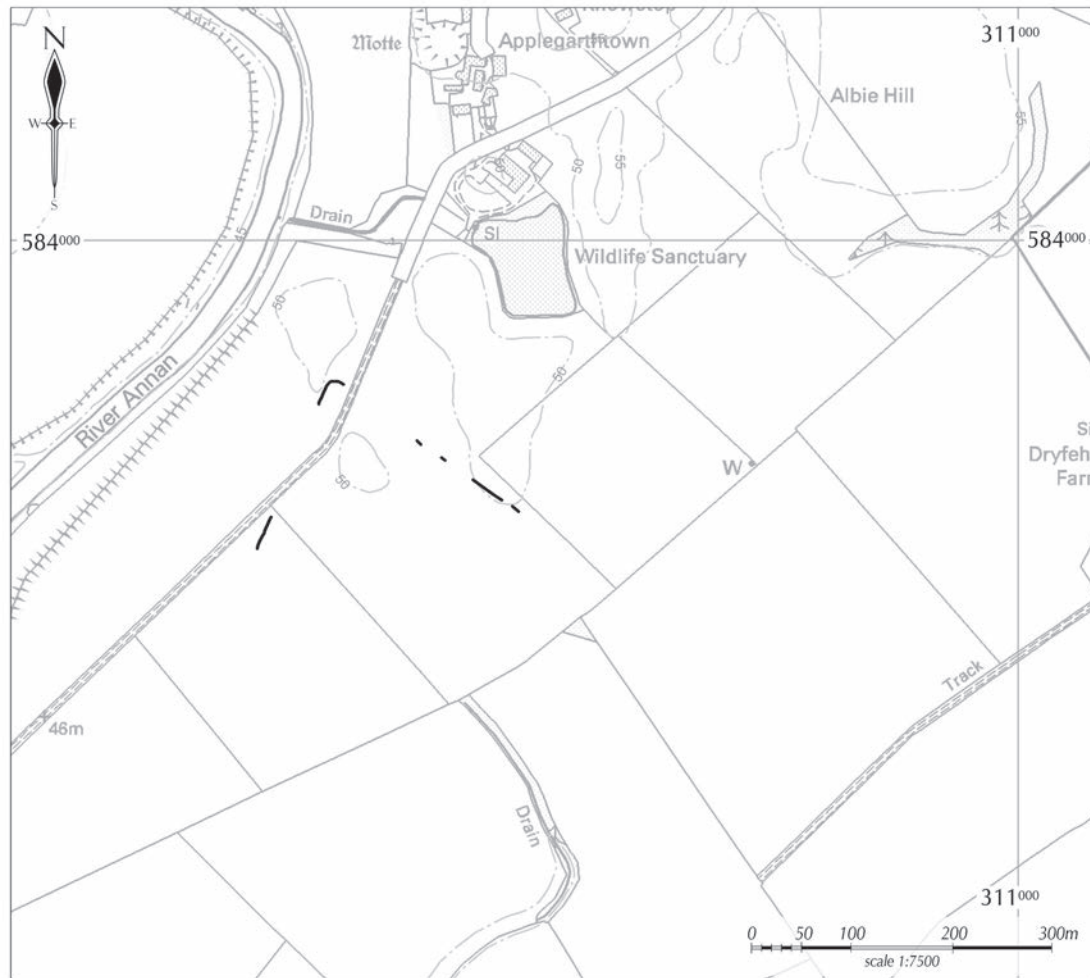


Illustration 76

Applegarthtown. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Applegarthtown (illus 26 & 76)

NY 1032 8384 NY 18 SW 93

First recorded in 1996 by RCAHMS following re-interpretation of air photographs taken in 1989 and 1992 (RCAHMS 1997: 184, 309), this camp is sited on level ground close to the River Annan, some 2km NNW of the Roman fort at Ladyward. The known portion of the camp

comprises its northern corner and stretches of the adjacent sides. Some 228m is recorded of the north-east side and at least 183m of the north-west side, demonstrating that the camp enclosed at least 4.2ha (10.5 acres) and probably significantly more.

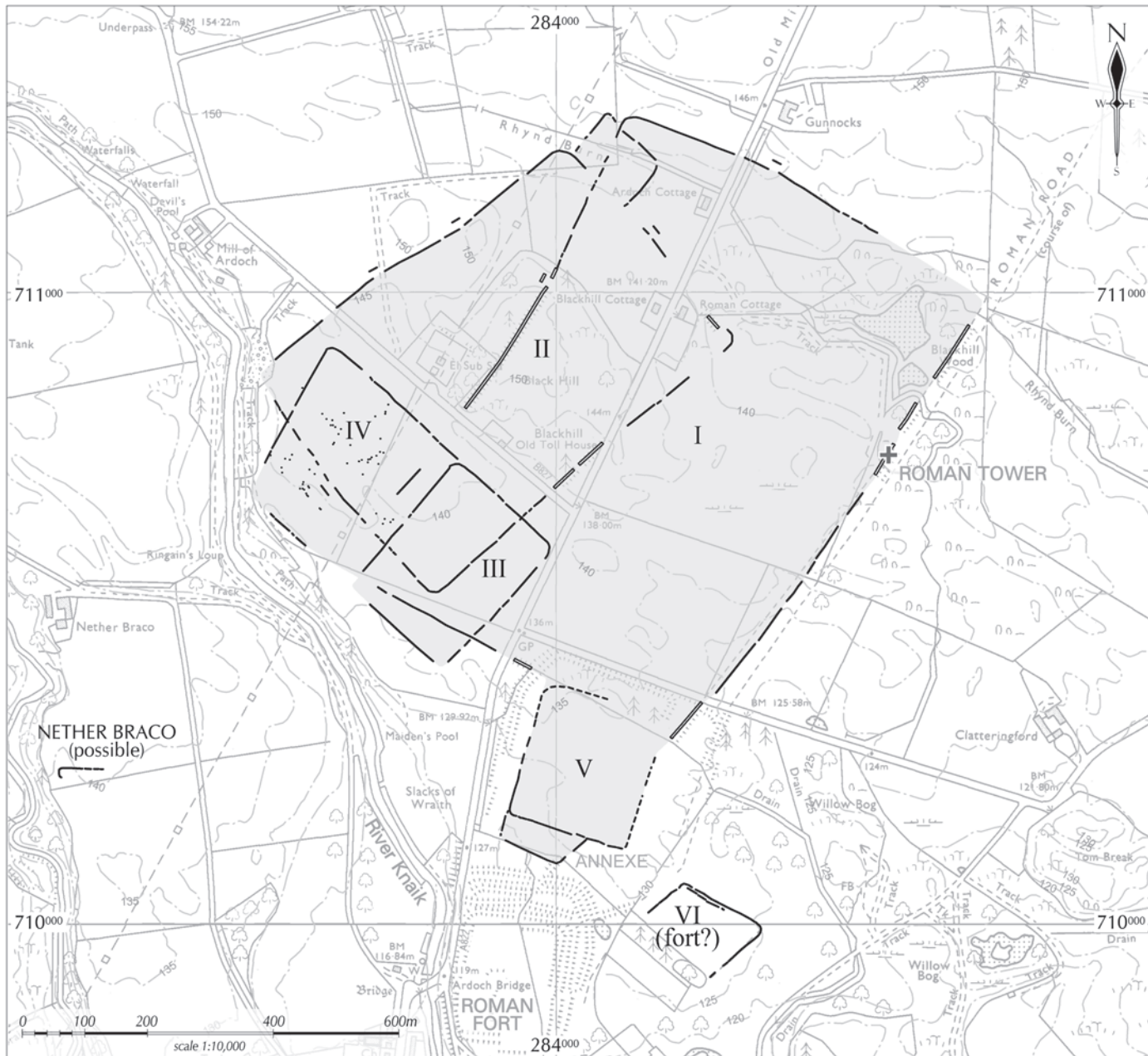


Illustration 77

Ardoch I–V and the possible fort (VI) to the east, and Nether Braco (possible). Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Ardoch (illus 12, 24, 47 & 77)

<i>Ardoch I:</i> NN 8420 1080	<i>Ardoch IV:</i> NN 8370 1069
NN 81 SW 18	NN 81 SW 16
<i>Ardoch II:</i> NN 8390 1090	<i>Ardoch V:</i> NN 8405 1025
NN 81 SW 15	NN 81 SW 19
<i>Ardoch III:</i> NN 8384 1056	
NN 81 SW 17	

The Flavian and Antonine fort at Ardoch has long been known and identified with the Roman army (see Christison 1898). On the plain to the north of the fort lie five camps of varying sizes, first apparently identified as 'several larger squares' by Sibbald (1707: 37), with two camps recorded and planned by Roy in 1755 (1793: Pl. X) (illus 12). Parts of these two can still be traced on the ground today. Pennant depicted these two stretches along with a third earthwork, which may well represent the east side of Ardoch III (1776: 103, Pl. X).

A further possible camp is recorded at **Nether Braco** across the River Knaik to the west, and a further immediately to the east of the fort (St Joseph 1976: 14; marked as site VI on illus 77) was reinterpreted as another fort following excavations in 1977 (RCAHMS St Joseph Collection: Notebook 7).

Camp I, the largest in the complex, measures 874m by about 600m, and enclosed 52ha (129 acres) of gently undulating ground. Stretches of the south-east, south-west and north-west sides, including a *titulus*, survive as earthworks. Most of the remaining perimeter ditch, and the north-eastern *titulus*, have been recorded as cropmarks. It is assumed from the position of the *tituli* that the camp probably had six gates. This camp intersects several others on the complex and a watchtower in Blackhill Wood on its south-east side. Here, excavations have recorded that the perimeter of the camp overlies the presumed Flavian tower (St Joseph 1977: 135, fig 8; Glendinning & Dunwell 2000). The ditch at this point was V-shaped and measured about 3.6m wide and 1.25m deep. Excavations on the west side, where the camp overlaps camps II, III and IV, recorded that the ditch of the camp was wide (2.7–3.0m) but very shallow, cut only some 0.3m into the subsoil then left unfinished. It stopped short of the ditch of camp II, suggesting that it was later (St Joseph 1970a: 170–1), and again stopped short of camp II at the northern intersection of the two (Hanson 1978a: 148). The upstanding segment of ditch on the north-west side is significantly deeper than that recorded by St Joseph's excavations, demonstrating differential survival rates and/or differing ditch depths dug by troops in antiquity. The excavations on the south-east side recorded that the ditch appeared to have silted up naturally (Glendinning & Dunwell 2000: 277). A *titulus* was also excavated on this side, the ditch of which was recorded as being 2.9m wide and 1.55m deep (Glendinning *et al* 2000: 262). The intersection between camps I and V has also been excavated, with camp I recorded as the later of the two (St Joseph 1976: 19).

The finds from the watchtower excavation were dated to the 1st and 2nd centuries, but were unstratified. An oven

was located just inside the perimeter between the ditches of the watchtower; this probably relates to the occupation of the camp rather than the tower (Glendinning & Dunwell 2000: 287).

Camp II lies to the north-west of camp I, intersecting its north-western side. A short stretch of its south-eastern side survives as an upstanding earthwork but the remainder of the camp has been recorded as cropmarks. It measured about 635m from north-east to south-west by about 440m transversely and enclosed almost 27ha (66 acres). *Tituli* are visible in the centre of the north-east and south-west ends, with a further two on its north-west side suggesting that it had six in total. Excavations where it overlaps camps I, III and IV recorded that the ditch was up to 2.7m wide and 1.2m deep. It had been deliberately in-filled where it lay within camp I, particularly on the line of the rampart of that camp (St Joseph 1970a: 167–71).

The camp has an annexe on its north-east end, measuring 118m by 85m and enclosing an additional 1ha (c 2.5 acres).

St Joseph observed that the gap in the camp earthwork on the south-east side is exactly between the presumed gates of camp I; this suggests that camp I is the later of the two, the rampart of camp II being flattened for the street lines of this later camp (1976: 17). He also commented that hardly any silt had accumulated in the ditch at this point, and that therefore there was little time difference between the construction of the two camps (1976: 19). It is unclear when this section was excavated, although it may have been in 1970 (RCAHMS St Joseph Collection: Notebook 5).

Camp III was rediscovered from the air in 1948 (St Joseph 1951a: 62; 1955: 87), but was partially recorded in 1772 by Pennant (1776: 103, Pl. X). It overlaps the southern corner of camp II and the south-west side of camp I and is now wholly known as a rectangular cropmark measuring 263m from north-east to south-west by 205m transversely, enclosing 5.3ha (just over 13 acres) (illus 24). Excavations by St Joseph in 1969 recorded that the ditch was some 2.3m wide and nearly 1m deep on its north-west side. The ditch had been deliberately filled (and contained tiny fragments of coarseware and mortaria); he interpreted this as having taken place with the enlargement of the camp into camp IV. A trench under the presumed line of camp II suggested that there were two phases of in-filling, one for the construction of camp IV and the other for camp II (St Joseph 1970a: 167–9). However, given the small-scale nature of the trenches, it is perhaps rather ambitious to be so confident on the identification of differential ditch fills.

He also commented that this camp must be early in the sequence at Ardoch because it occupied the best location close to the fort (1969: 114). No entrances are known, but there is a possible gap close to the centre of the north-west side.

Camp IV was also discovered from the air in 1948 by St Joseph (1951a: 62; 1955: 87), and was seen by him as an extension of camp III. On the assumption that it shares three of the sides of camp III, it measures around 450m from north-west to south-east by 266m transversely, enclosing about 11.8ha (29 acres). No gates are known.

The enlargement of camp III to become camp IV is not the only possible explanation for deliberate refilling of the ditches, because St Joseph's trenches were also within camp I. Furthermore, the dangers inherent in attributing time periods to ditch silting and back filling were exemplified at **Ythan Wells** (Hanson 1978a: 145). It is also possible that camp IV was later reduced to become camp III.

Camp V was discovered in the 1970s by St Joseph following a re-examination of Roy's field boundaries (1976: 19; 1977: 137) and lies within the annexe (so-called 'Procestrium', a term coined by Roy), north of the fort. It survives as a low earthwork measuring 220m from north-south by 197m transversely, enclosing 4.3ha (10.7 acres). St Joseph placed numerous trenches through this camp between 1975 and 1978 to determine its full extent. The rampart measures up to 2.7m wide and 0.3m high, with the excavated ditch up to 1.6m wide and 1.2m deep. Elsewhere, the ditch is visible as a hollow, some 2.4m wide. It appears to have been deliberately filled in, and St Joseph suggested that the camp must be earlier than the annexe because the earthworks of the latter block all visibility (1976: 19; 1977: 138). It is also overlain by camp I (St Joseph 1976: 19).

Camp V possesses an annexe on its south side, which measures up to 140m by some 42m, enclosing an additional 0.6ha (1.45 acres). Excavations in 1977 on this annexe revealed that its ditch was up to 1m deep and 1.5m wide (RCAHMS St Joseph Collection: Notebook 7).

The five camps have therefore been subject to various excavations over the years, principally to establish the sequence between them, because members of St Joseph's '30-acre', '63-acre' and '130-acre' series are represented (see above, Chapter 9). These have led to conclusions about chronologies, but some are suppositions and not all are fully sustained by the evidence.

From the earthworks, Roy concluded that camp II was later than camp I (1793: 62–3), but Hanson examined an original drawing of Roy's plan which depicted camp I cutting camp II (Hanson 1978a: 148). This chronology was confirmed by excavations at the two intersections of camps I and II, where camp I stops short of camp II in both cases (St Joseph 1970a: 170–1; Hanson 1978a: 148). Camp I also overlaps the Gask Ridge watchtower of Blackhill Wood to the east. To the south it overlaps camp V and the annexe north of the fort. It is clearly later than the watchtower and also later than camp V (St Joseph 1977: 138). There is some debate regarding its relationship with the annexe of the fort. It was widely believed that the earthworks of the annexe override the south-east corner of camp I (Roy 1793: 63; Crawford 1949: 33; Breeze 1973: 126), although St Joseph disputed this, stating that the camp was the later of the two (1977: 135). At the west intersection of the two, the annexe appears to be later, but this may have been recut as a later field boundary (Hanson 1978a: 146). However, at the eastern intersection the camp does appear to overlie the annexe.

Thus the main chronological evidence indicates that camps II and V are earlier than camp I, which possibly represents one of the latest phases of occupation at the site. Camp I was constructed after the watchtower, and is therefore likely to be post-Flavian in date. It also appears to be later than the 'Procestrium', which is probably an annexe for one or more phases of the fort – at the latest Antonine II. That camps I and II are later in the sequence could explain the better survival of their earthworks into the 18th century, but part of camp III also appears to have been so recorded (Pennant 1776: 103, Pl. X). Camps III and IV probably pre-date camps I and II, but the sequence between these is not yet defined.

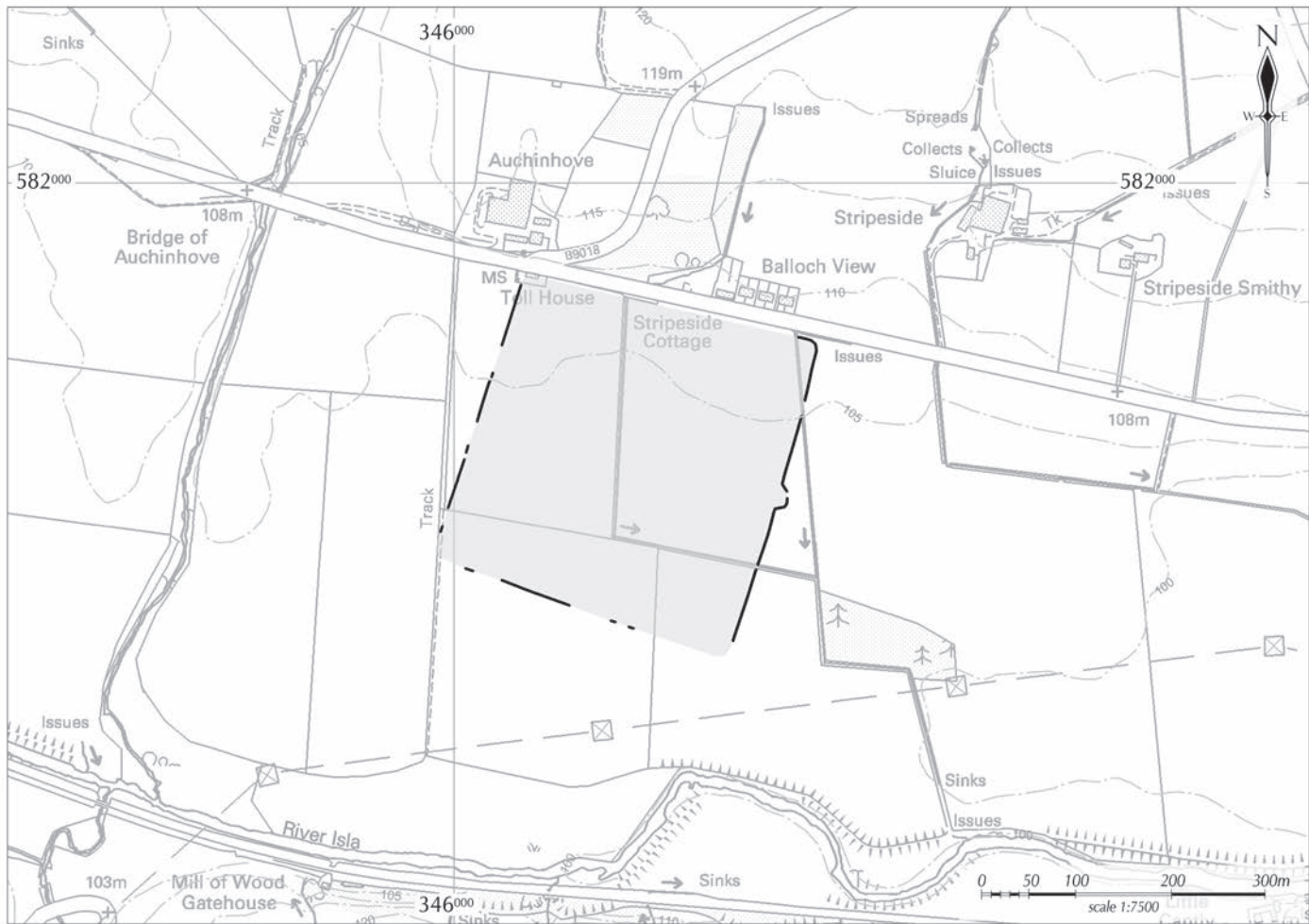


Illustration 78

Auchinhove. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Auchinhove (illus 47 & 78)
 NJ 4630 5167 NJ 45 SE 5

The camp at Auchinhove was first recorded from the air by St Joseph in 1949 (St Joseph 1951a: 65). It lies to the east of Keith, on low-lying ground just to the north of the River Isla close to the Pass of Grange. The camp of **Muiryfold** lies about 2.5km to the east. The presence of the camp of Auchinhove has been used to argue for nearby Knock Hill (just over 8km to the north-east) as the site of the Battle of Mons Graupius, with Auchinhove established after the battle, and after the Pass of Grange had been secured (Burn 1953: 132–3). The camp has been dated to the Flavian period, owing to the presence of a Stracathro-type gate (St Joseph 1958: 93) in its east side (see Chapter 10).

The camp lies in a series of arable fields to the south of the A95 from Banff to Keith. Parts of three sides are known from air photographs with a corner suggesting the position of the fourth, along the side of the road. There is an external *clavicula* and oblique traverse (Stracathro-type) entrance on the ESE side. The camp measures some 337m from NNE to SSW by 328m transversely and encloses some 10.9ha (27 acres). St Joseph conducted excavations on several occasions, recording that the ditch on the SSE side was small, measuring only 0.85m in width by 0.7m in depth (RCAHMS St Joseph Collection: Notebook 2). He also excavated three other trenches on the SSE side

with slightly smaller dimensions (RCAHMS St Joseph Collection: Notebook 1), and five further trenches across the SSW side to establish its location several years later

(RCAHMS St Joseph Collection: Notebook 6), because there were two sets of linear cropmarks that could have represented that side of the camp.

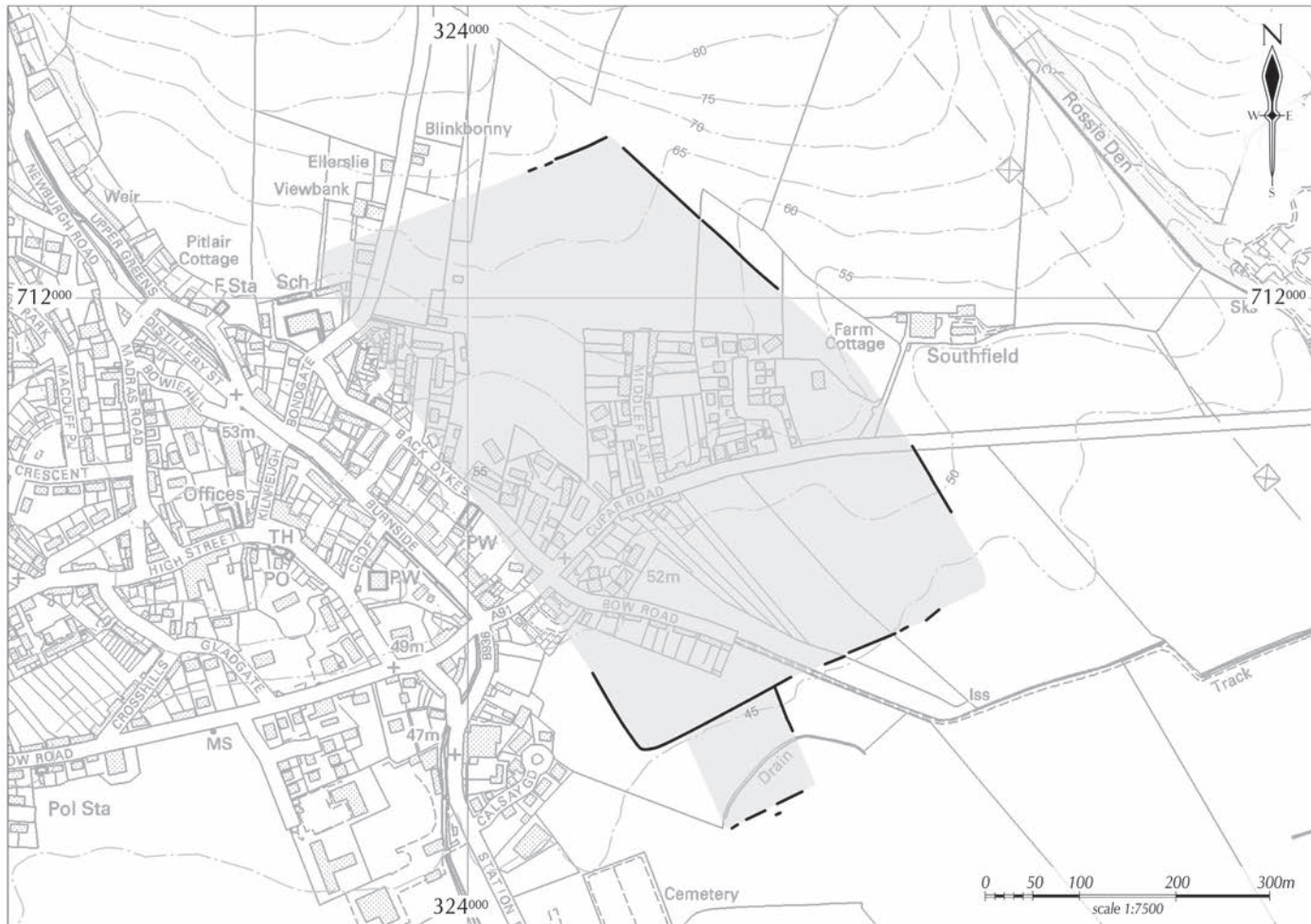


Illustration 79

Auchtermuchty. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Auchtermuchty (illus 47 & 79)

(Black Dykes)

NO 2424 1185 NO 21 SW 17

The camp at Auchtermuchty was first recorded from the air by St Joseph in 1962 (St Joseph 1965: 82). It lies on the east side of the village of Auchtermuchty, and parts of all four sides have been recorded as cropmarks over the years, indicating that the camp measured some 601m from north-west to south-east by 408m transversely, enclosing some 23.5ha (58 acres). A gap in the cropmark

on the south-east side may represent the position of an entrance, but no other entrances are known. A possible annexe or attached camp is recorded on its south-east side, lying to the west of the probable entrance. Here, a narrow cropmark ditch is visible running SSE at almost right angles to the camp ditch, and a further narrow ditch is discernible in the neighbouring field, suggesting the

possible south-east side of the annexe, with hints of a possible entrance gap and a *titulus*. The annexe measures some 106m by at least 100m, enclosing a minimum of 1.23ha.

The camp has been subjected to numerous small-scale excavations and watching briefs, with the excavated ditch recorded as V-shaped, measuring 2.35–3.0m wide and 0.6–1.5m deep (RCAHMS St Joseph Collection:

Notebook 3; St Joseph 1965: 82; Cachart & Williams 1992; Duffy 1993: 183). A watching brief in 1992 on the probable line of the south-west side of the camp recorded a round-bottomed ditch which measured 2.35m wide and 0.6m deep. The ditch had a small piece of medieval pottery in its fill, although the excavators interpreted the ditch as belonging to the Roman camp (Cachart & Williams 1992).

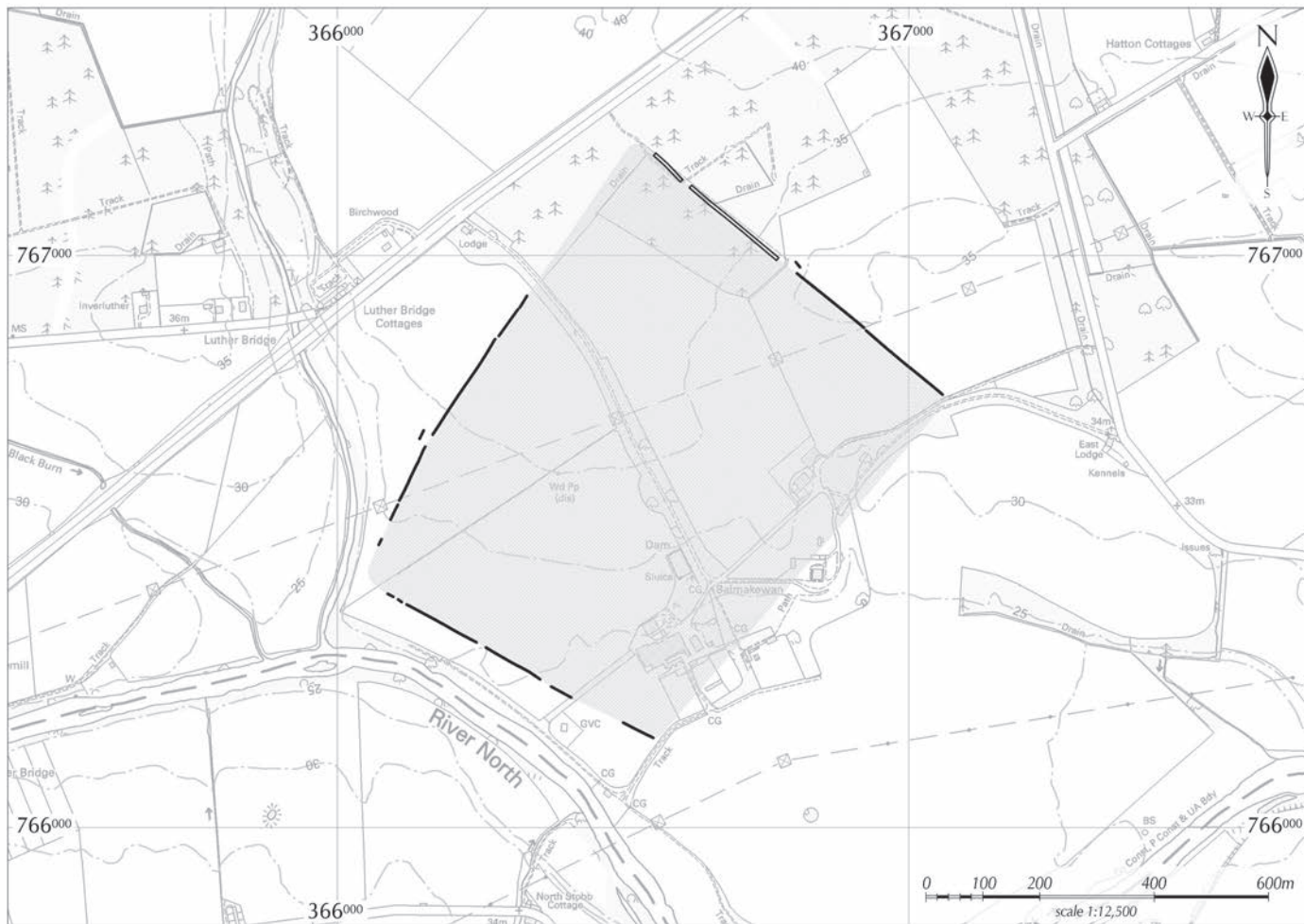


Illustration 80

Balmakewan. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Balmakewan (illus 47 & 80)

(Ad Tinam)

NO 6657 6667 NO 66 NE 5

Chalmers placed Richard of Cirencester's 'Ad Tinam' on the River North Esk, and illustrated it close to the location of Balmakewan (1807: i, 124, Map). However, thereafter it apparently disappeared from the literature and is absent from Crawford's thorough treatise on Roman Scotland (1949). St Joseph rediscovered the camp from the air in 1967 (1969: 112).

The camp is situated on the north bank of the River North Esk, close to the Luther Water, some 4.5km ENE of the Flavian fort and camp at **Stracathro**, and south-east of the modern A90. It lies on ground that slopes gently to the north, away from the river, and which comprises largely arable fields around the farm of Balmakewan, with a wood covering its northern portion. Parts of the north-east,

north-west and south-west sides are recorded as cropmarks on air photographs, and *tituli* are visible in the centre of the north-east side and in the southern part of the north-west side, suggesting that the camp probably had six entrances in total. The section of the north-west side in the wood is not visible, probably destroyed by forestry ploughing, but a small part of the north-east side survives as an earthwork, partly owing to the presence of a deep-cut forestry drainage ditch on what is presumably the line of the ditch. The rampart here survives up to 4.7m wide and 0.4m high, although the forestry has eroded parts of it in places. The camp is not quite rectangular in form, measuring about 844m from north-east to south-west by about 665m transversely, enclosing some 55.9ha (138 acres). Two small trenches were

excavated by St Joseph in 1967 and 1980 on the south-east and north-east sides respectively, confirming the location of the ditches on those sides, although probing failed to locate the southern part of the south-east side. The ditch is recorded as measuring up to 2.4m in width and 0.75m in depth (RCAHMS St Joseph Collection: Notebooks 4, 8).

St Joseph's notebooks allege that he discovered part of the south-east side in a trench dug to the west of Balmakewan House (at NO 6684 6643), and he depicted

a line on his plan (RCAHMS DC 37247). He noted that he failed to locate the ditch farther to the south by probing. No part of the south-east side is visible on air photographs, and the eastern end of the north-east and south-west sides suggest that the side lies farther to the east than depicted by St Joseph. It is possible that the ditch that he dug does not represent the south-east side of the camp, and that this side does indeed lie farther to the south-east.



Illustration 81

Balmuilty, with the Antonine Wall to the south (bottom right). Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Balmuilty (illus 47 & 81)
(Buchley)

NS 5860 7220 NS 57 SE 15

The camp lies in an arable field to the north of the Antonine Wall, about 500m north of the Roman fort at Balmuilty, in a loop of the River Kelvin east of where the Wall crosses the river. It was first discovered from the air by St Joseph in 1951 (1955: 86).

The camp measures about 257m from north-east to south-west by about 187m transversely, enclosing an area of some 4.7ha (12 acres). Entrance gaps are visible in the centre of south-west and north-east sides, and there are possible gaps in the other two sides. Together these suggest that the camp probably faced south-west towards the nearby fort.

The camp is provided with a small annexe on the

eastern half of the north-east side, measuring 71m by 87m and enclosing an additional 0.62 hectares. Unusually, there appears to be a second annexe to the south-east of this, measuring 65m to the south-east by at least 98m, but only parts of the additional north-east and south-east sides have been recorded. The addition of these two annexes increases the entire area enclosed: 4.72ha + 0.62ha + 0.64ha = 5.98ha (14.8 acres).

Only two other camps on the Antonine Wall are known to have been furnished with annexes or attached camps (excepting the **Lochlands** complex), and the provision of a second annexe is currently unparalleled in Britain.

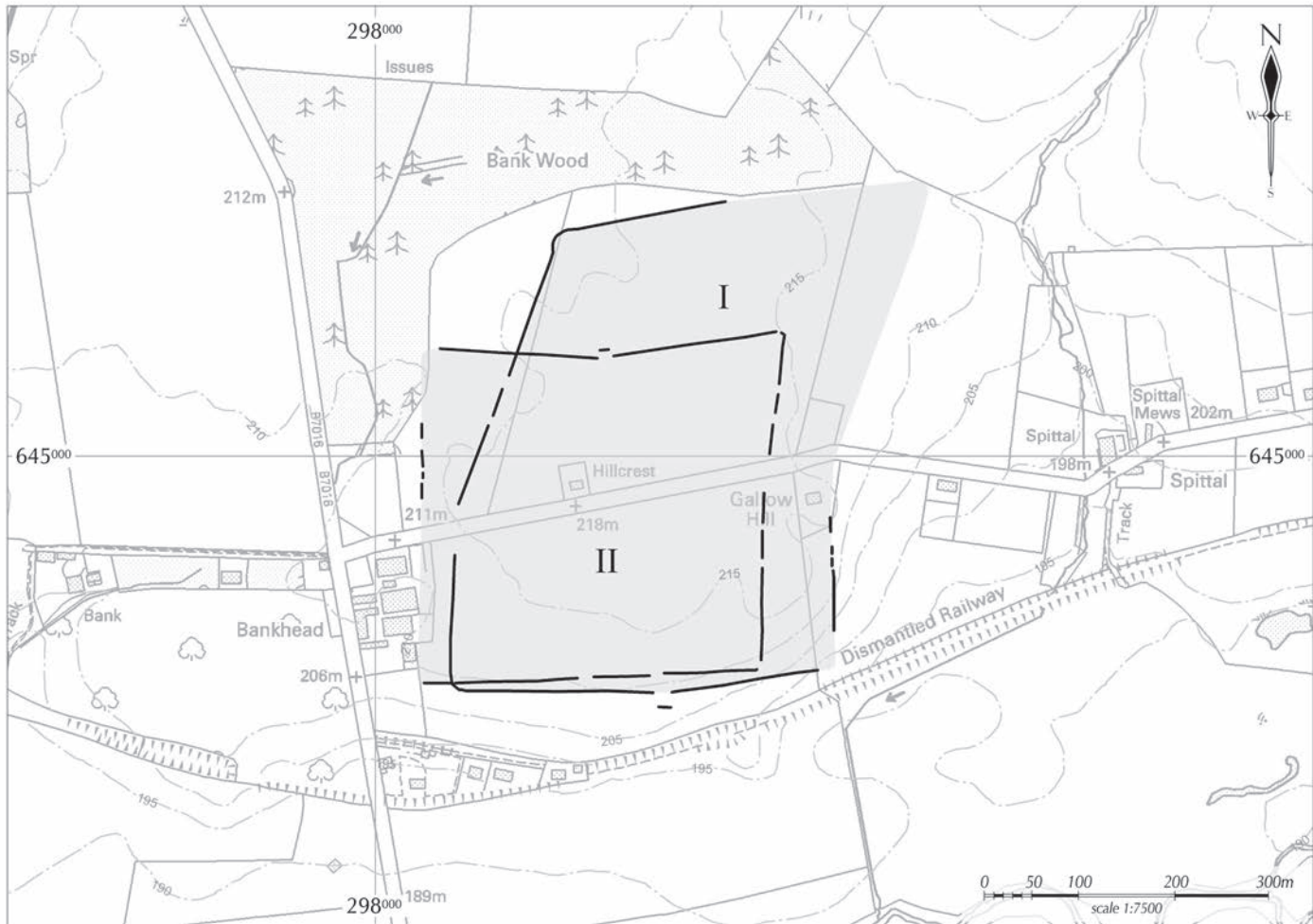


Illustration 82

Bankhead (Carnwath) I and II. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Bankhead Carnwath (illus 47 & 82)

Bankhead I: NS 9835 4515
NS 94 NE 23

Bankhead II: NS 9820 4490
NS 94 SE 26

The two camps at Bankhead Carnwath lie on a terrace above the Medwin Water, close to its confluence with the upper reaches of the River Clyde, and above a dismantled railway which ran to nearby Carstairs Junction. The fort and camps at **Castledykes** lie some 5km to the west, with the camp at **Carstairs Mains** in between, and the fortlet of Carnwath only 1km to the west. The two camps overlap one another and were first recorded from the air as cropmarks by St Joseph in 1977 (RCAHMS 1978a: 160).

Camp I is the larger of the two and measures about 511m from north to south by about 393m transversely, although there is a marked change in alignment in its western side, which may have been matched on its

eastern side. The southern part of this side runs on the line of an older plantation visible on the OS 1st edition map (Lanarkshire 1864: sheet xxvi), and the eastern part of the north side of the camp is probably represented by the edge of Bank Wood. It therefore seems likely that the plantation utilised the existing Roman earthworks for its boundary in places. The camp probably enclosed some 18ha (45 acres). The north-west corner of the camp bulges slightly in an unusual manner, reminiscent of the corner turrets found on late-Roman fortifications.

The modern road changes its alignment and exhibits a noticeable kink where it enters the east side of the camp; this may reflect the position of a gate. A *titulus* is visible in

the centre of the southern side and the eastern kink may be so positioned to avoid a *titulus* on this side.

Camp II is closer to square in form, measuring about 356m from east to west by 330m transversely, enclosing 12.2ha (30 acres). The cropmark of this camp is narrower than that of camp I, suggesting that it had a slighter ditch. As with camp I, part of the perimeter of Bank Wood appears to continue part of one side of this camp (the west). A gate with a *titulus* is visible in the centre of the north side, and there is a corresponding entrance gap in the centre of the south side.

The relationship between the two camps is unknown, but they are clearly not contemporary, and the fact that they do not share a single side might indicate a reasonable time gap between them, or a penchant by the military commanders for constructing new camps in their entirety. The quarry pits of the Roman road from **Lyne** to **Castledykes** are recorded through cropmarks between the camps and the fortlet to the west, and presumably ran through both camps, although no quarry pits have been observed in their interiors.



Illustration 83

Bar Hill and Bar Hill 'structure'. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Bar Hill (illus 83)

NS 7070 7575 NS 77 NW 32

The probable camp on Bar Hill was first recorded from the air by RCAHMS in 1979 (Maxwell & Wilson 1987: 29), and subsequently confirmed by excavation (Keppie & Walker 1990: 151–3). It lies on the same ridge as the fort on Bar Hill, in the arable field immediately to the south.

The camp was recorded as a linear cropmark running NNW to SSE near the south corner of the fort, and part of the possible SSE side could be detected. However, excavations failed to locate the SSE side, suggesting that the linear cropmark originally identified on this side might be the result of a natural hollow. The ditch on the ENE side is at least 135m long and measured about 2m in width by up to 0.7m in depth, with the corner on the north side and some 25m of the NNW side traced by

excavation. The presumed continuation of the side could not be established, owing to probable later industrial workings. Its overall size is unknown, although Keppie & Walker estimated that it could enclose 0.6ha (1.48 acres) based on the local topography (1990: 153).

The camp was initially interpreted as a possible annexe to the fort, but was demonstrated to turn west rather than join up to the fort's defences. The excavators noted that it could be the same feature (ditch) that George Macdonald recorded having been opened up in 1908 (Macdonald 1911: 199; 1934: 281).

It is perhaps curious that the camp appears to enclose ground to the south-west of the fort rather than the slight knoll immediately to the south, which appears to be slightly more suitable ground, and certainly commands a

better outlook. This choice of location to the rear of the fort adds weight to the theory that this was a construction

camp for the building of the fort (Keppie & Walker 1990: 153).

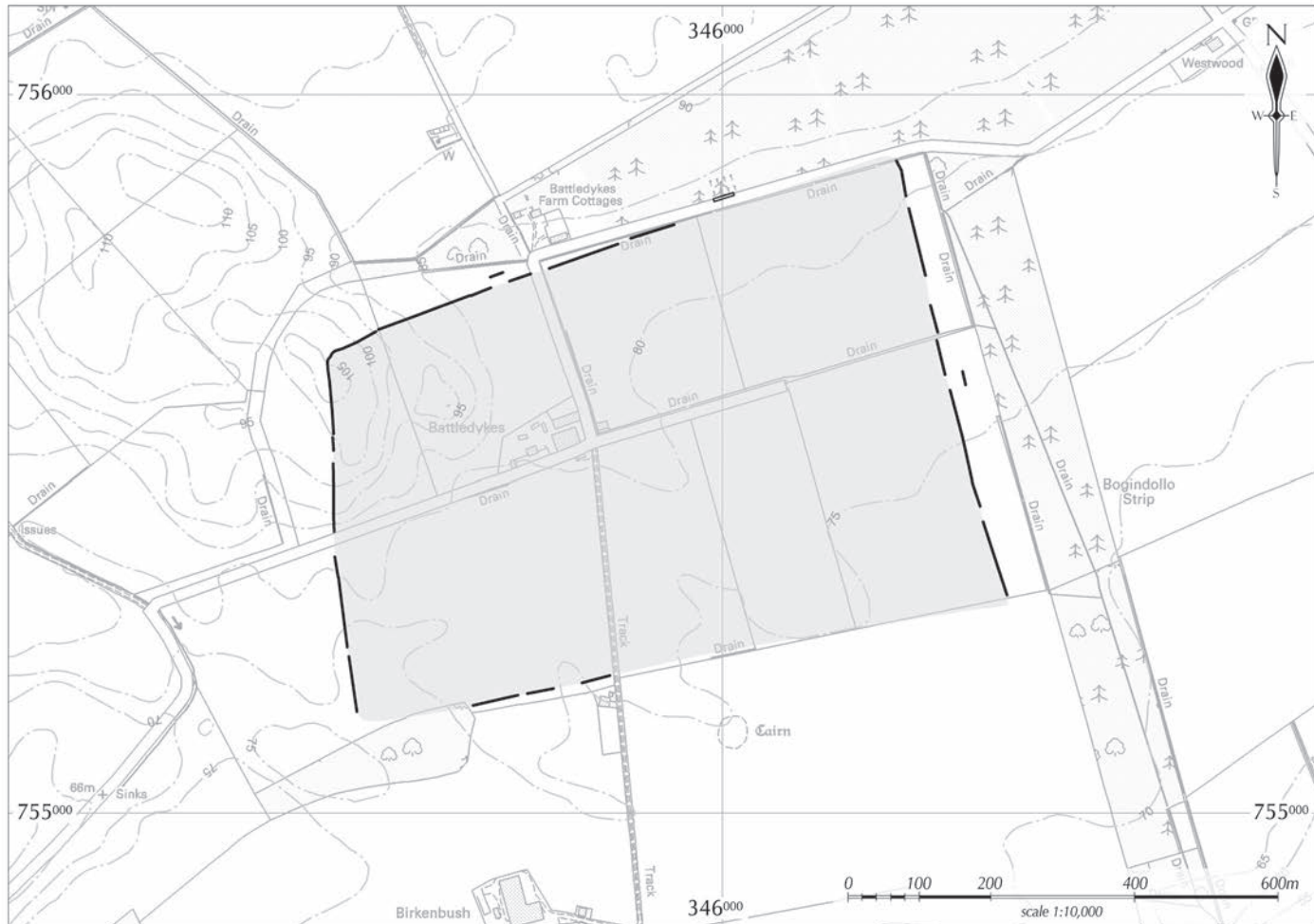


Illustration 84

Battledykes, Oathlaw. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Battledykes, Oathlaw (illus 28, 29, 47 & 84)
(Oathlaw)

NO 4580 5550 NO 45 NE 12

The camp at Battledykes, Oathlaw was one of the camps discovered by Captain Robert Melville while travelling through Strathmore in August 1754 (Balfour-Melville 1917: 123n; Jones & Maxwell 2008), and planned by Roy the following year (Roy 1793: Pl. XIII – illus 28). When Roy planned it, most of the NNW, ENE and SSE sides and part of the west were visible, along with five entrances, four of which were protected by *tituli* (Roy 1773). A later 18th-

century account by the Rev. Jameson of Forfar records an enclosure comprising a rampart of stones and earth with no ditch on the east part of the SSE side of the camp (1786: 18), and he likened this to the annexe at **Kirkbuddo** (1786: 20–1). No trace of this possible annexe has yet been detected in more recent times. Jameson also mentioned that the camp had two ramparts with a ditch in between, presumably reflecting the survival of a counterscarp mound

outside the ditch (1786: 16). By the time that the site was planned by Crawford, part of the SSE side survived as an earthwork, along with a *titulus* on the NNW side (1949: 95–7). By 1958, all that remained of the camp was the northern *titulus* (OS Recorder 1958), which still survives close to the edge of a plantation.

The camp is located about 4km north of Forfar and 3km north of the probable camp at **Lunanhead**. It lies a few hundred metres from the Lemno Burn, in relatively flat terrain, although the area slopes gently to the north-west towards Wolf Law. Parts of all four sides have now been recorded from the air (illus 29), together with the *titulus* in the centre of the ENE side and a second *titulus*

in the NNW side. It measures about 885m from ENE to WSW by 600m transversely, enclosing at least 51ha (126 acres).

The upstanding *titulus* on the north side has been partially scarped to the south by the road, and the bank marking the edge of the plantation continues as a lower bank to the east and west of the mound. The *titulus* mound is about 19.2m long, 4.2m wide and 0.4m high. The ditch to the north is slightly shorter at 16.5m, and about 2m in width by up to 0.6m in depth.

At least one probable souterrain has been recorded within the perimeter of this camp (not depicted on illus 84, but see section 7h and illus 29).



Illustration 85

Beattock Bankend and Barnhill I–IV and the Roman fortlet. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Beattock (illus 38, 47, 71 & 85)

*Beattock Bankend: NT 0840 0205
NT 00 SE 36*

*Beattock, Barnhill I: NT 0845 0261
NT 00 SE 45*

*Beattock, Barnhill II: NT 0880 0270
NT 00 SE 20*

*Beattock, Barnhill III: NT 0880 0270
NT 00 SE 20*

*Beattock, Barnhill IV: NT 0878 0278
NT 00 SE 20*

On the gravel terrace at Beattock, about 1km to the north of the fort at Milton, lie some five temporary camps, on either side of the Evan Water, close to its confluence with the River Annan.

Beattock Bankend, the single camp currently known on the south side of the Water, was first discovered in

1977 by RCAHMS from the air (Maxwell & Wilson 1987: 30–1). At least 444m of the south-west side has been recorded as a cropmark, together with a rounded corner angle and 368m of the north-west side. The area enclosed by the camp is unclear – it lies on the south-west side of the Evan Water, which has clearly moved

course over time, evidenced by cropmarks of numerous palaeo-channels. Both sides possess Stracathro-type gates; that in the north-west side lies less than 100m from the present course of the Water (but 330m from the known corner of the camp), and therefore the camp must have extended into the area now on the other (Barnhill) side of the river. If the gate on the south-west side is in the centre of that side, then the camp would have measured some 580m by at least 370m, enclosing at least 21.5ha (53 acres) and quite possibly closer to 26ha (64 acres).

Excavations revealed that the ditch was up to 2m wide and 0.9m deep (Leslie 1995: 154; Speller & Leslie 1995: 19–20). One field oven and the probable remains of two more were located in a trench placed obliquely across the camp in advance of the upgrading of the A74. In addition, the excavators suggested, on the basis of the silting, that the camp perimeter was left open for a period of time before the rampart was pushed into the ditch. There was no evidence for any reuse of the ditch (Speller & Leslie 1995: 26). Leslie has suggested that this camp may be a construction camp for the nearby fort at Milton (1995: 150–2; Speller & Leslie 1995: 26–7), but this seems unlikely given the distance between the two and the fact that there is a camp just outside that fort (**Milton I**).

On the north side of the Evan Water lie a further four camps at Beattock Barnhill. Camp I, on the west, was first recorded through cropmarks in 1957 by St Joseph from the air (1958: 89). The camp measures 363m from north-west to south-east by about 304m transversely. Although the west side of the camp has been eroded by the movement of the Evan Water, the south corner is visible, giving us an indication of the likely position of this side. The camp enclosed about 11.7ha (almost 29 acres). A *titulus* is recorded in the ENE side, at a change of alignment just south of the centre. At its northern corner the camp overlies a putative fortlet. Maxwell undertook a trial excavation to establish the relationship between the two structures and demonstrated that the camp was the later of the two (Frere 1985a: 267; Maxwell & Wilson 1987: 31, 40).

East of camp I lie camps II, III and IV, which represent successive uses of the same location with the perimeters adjusted to suit the size of the force camped within. First photographed in 1945 by St Joseph from the air (1951: 58), the camps are recorded as cropmarks with a field boundary running along their northern edge. Camp II measures 436m from WSW to ENE by at least 307m, but the south side of the camp is unknown, owing to erosion and movement of the Evan Water. *Tituli* are visible on the NNW and ENE sides, with a further two visible on

the WSW side (although it is likely that northern *titulus* on this side relates to the occupation of camp IV). If the southern of the two *tituli* on the WSW side and the corresponding *titulus* on the ENE side are in the centre of those sides, then the camp would measure c 350m by 436m and enclose some 15.4ha (38 acres).

Excavations in 1992 on the north side of the camp recorded that the ditch was up to 2m wide and 0.8m deep with a U-shaped profile. Traces of rampart material were also noted (Neighbour *et al* 1994: 10–11). The camp has been reduced twice, but the small-scale excavations on the north side did not record any evidence for a recut of the ditch (Neighbour *et al* 1994).

Camp III represents a reduction of camp II by the construction of an additional defensive ditch (and presumably also rampart) some 115m from the WSW side of that camp. As with camp II, its southern extent is unknown. The camp measured 321m from WSW to ENE by at least 307m transversely, enclosing at least 10.2ha (25 acres) and possibly 11.4ha (28 acres). (This assumes that the area enclosed by this camp was the larger area to the east, not the narrow rectangular area to the west, which would therefore represent an enclosed area of some 3.7ha (9 acres). A further use of the west rectangle is recorded (camp IV).) No additional gates of the camp are known, but it may have utilised the same entrances as those currently known on the NNW and ENE sides of camp II.

Camp IV is a reduction of camps II and III by the construction of an additional ditch (and presumably rampart) further reducing the area between the WSW sides of camps II and III. The area enclosed is almost square, measuring 124m from NNW to SSE by 118m, enclosing 1.4ha (3.6 acres). A *titulus* is visible in the centre of the WSW side but there is no corresponding break in the perimeter ditch. It is presumed that the earlier camp ditch was deliberately filled in at the entrance point, but possibly with similar material to that which later filled the rest of the ditch, thereby leaving the causeway undetectable in the cropmark record.

A study of the environmental history, fluvial deposits and river movement of the Evan Water concluded that the Stracathro-type camp at Beattock Bankend was earlier than its neighbours across the water at Beattock Barnhill. This was because the eastern Barnhill camps (II–IV) were constructed across gravel deposits and palaeo-channels that can only have been formed after the Bankend site was constructed (Tipping 1997: 25). Beattock Bankend is probably Flavian in date (see Chapter 10), and the fortlet underneath Beattock Barnhill

I has also been proposed as dating to the 1st century AD (Maxwell & Wilson 1987: 21), thereby implying that Beattock Barnhill I was Antonine or later. A sequence can therefore be identified at this complex, with Beattock Bankend representing a Flavian occupation of the area and quite probably all four camps at Beattock Barnhill

relating to campaigns in the Antonine and later periods. Their location a short distance from the fort at Milton, which demonstrated occupation in the Flavian and Antonine periods (Clarke 1951), suggests that non-proximity of camp and fort sites need not necessarily be an indicator of non-contemporaneity.

ROMAN CAMPS IN SCOTLAND



Illustration 86

Birrens II–III and Broadlea I–II showing the Roman fort and annexes at Birrens and the Neolithic henge at Broadlea II. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Birrens (illus 47, 86 & 90)

Birrens I: NY 2190 7515
 NY 27 NW 4

Birrens III (possible): NY 2165 7535
 NY 27 NW 4

Birrens II: NY 2245 7502
 NY 27 NW 5

There is a small cluster of camps at **Birrens** and **Broadlea**, close to the Roman fort at Birrens, on fairly level ground in a landscape dominated by Burnswark hill to the north-west. A further two camps lie about 1.5km to the north-west at **Middlebie Hill**.

One camp (I, not shown on illus 86), a 'Flavian enclosure', was recorded under the fort at Birrens during excavations in the 1960s (Robertson 1975: 73–5, fig 19). It was apparently filled in before the construction of the Hadrianic fort on the site, and finds from the ditch silting included glass and pottery, all dating to the late 1st century AD (Robertson 1975: 75). The enclosure was at least 71m by 21m and the ditch measured 2.1m in width and 0.9m in depth (Robertson 1975: 73).

Three other small camps and a possible fortlet were recorded south and east of the fort (across the Mein Water, also see **Broadlea**), along with a possible fourth camp to the north-west (camp III), although this may

be one of the annexes to the forts (St Joseph 1951: 57–8).

Camp II was discovered in 1948 as a cropmark by St Joseph from the air (1951a: 57–8) lying to the ESE of the fort across the Mein Water. It measures 341m from ENE to WSW by 245m transversely, enclosing 8.3ha (20.6 acres). A *titulus* is visible close to the centre of the WSW side but none is recorded from the other sides. A linear cropmark with a rounded corner within its interior could represent a further camp, but the evidence is inconclusive.

Camp III consists of the cropmark of a rounded corner and stretches of two adjacent sides just to the north-west of the fort, and was recorded in the 1940s by St Joseph. At least 85m of the south-west side and 25m of the north-east are known, and the site is probably either the remains of a temporary camp or of an annexe to the fort (St Joseph 1951a: 57).



Illustration 87

Blackchester. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Blackchester (illus 47 & 87)

NT 5154 5025 NT 55 SW 42

First recorded by RCAHMS from the air in 1992, the camp at Blackchester is situated just to the east of the line of Dere Street on a terrace which slopes gently eastwards towards the Leader Water. The cropmarks reveal the north-west angle together with at least 375m of the

south-west side and part of the adjacent north-west side. The presumed north-east side is located about 356m to the east; the total area enclosed is at least 14ha (35 acres). No gates are currently known.

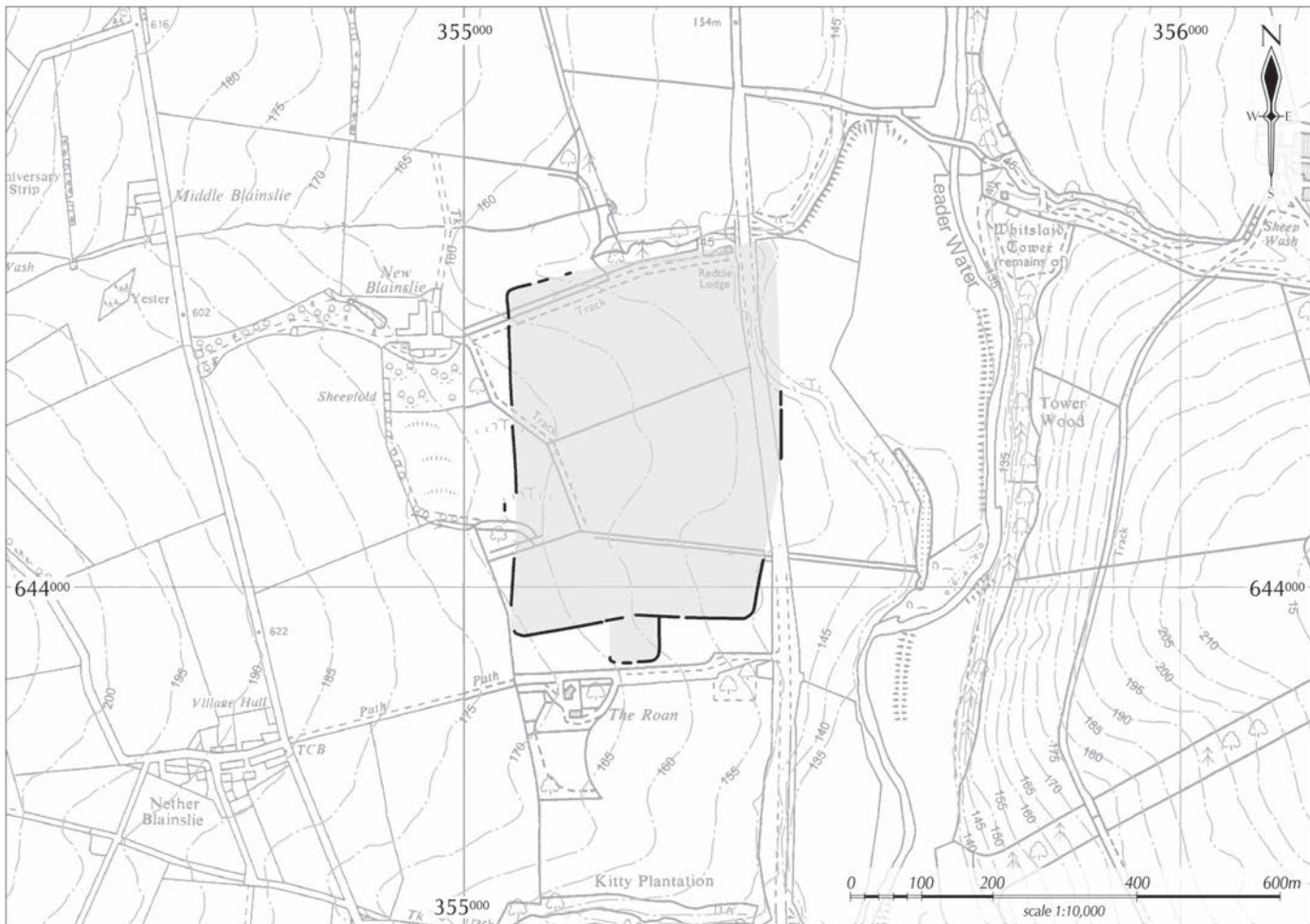


Illustration 88

Blainslie. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Blainslie (illus 47 & 88)

NT 5520 4420 NT 54 SE 18

The camp at Blainslie was first recorded in 1970 by St Joseph from the air (1973: 216) and is situated on gently sloping ground above the Leader Water, close to the presumed line of Dere Street. Parts of all four sides have been recorded, indicating that the camp measured some 493m from north to south by around 375m transversely, enclosing just over 18ha (nearly 45 acres). The camp is slightly irregular in form, with a distinct change of

alignment in the centre of the south side at an entrance gap. A second gate in the southern part of the west side is protected by a *titulus*. A small annexe or further camp is visible at the centre of the south side, enclosing the area where the entrance gap is located. It extends some 65m to the south and is possibly 70m wide, enclosing an additional c 0.45ha (1.1 acres).

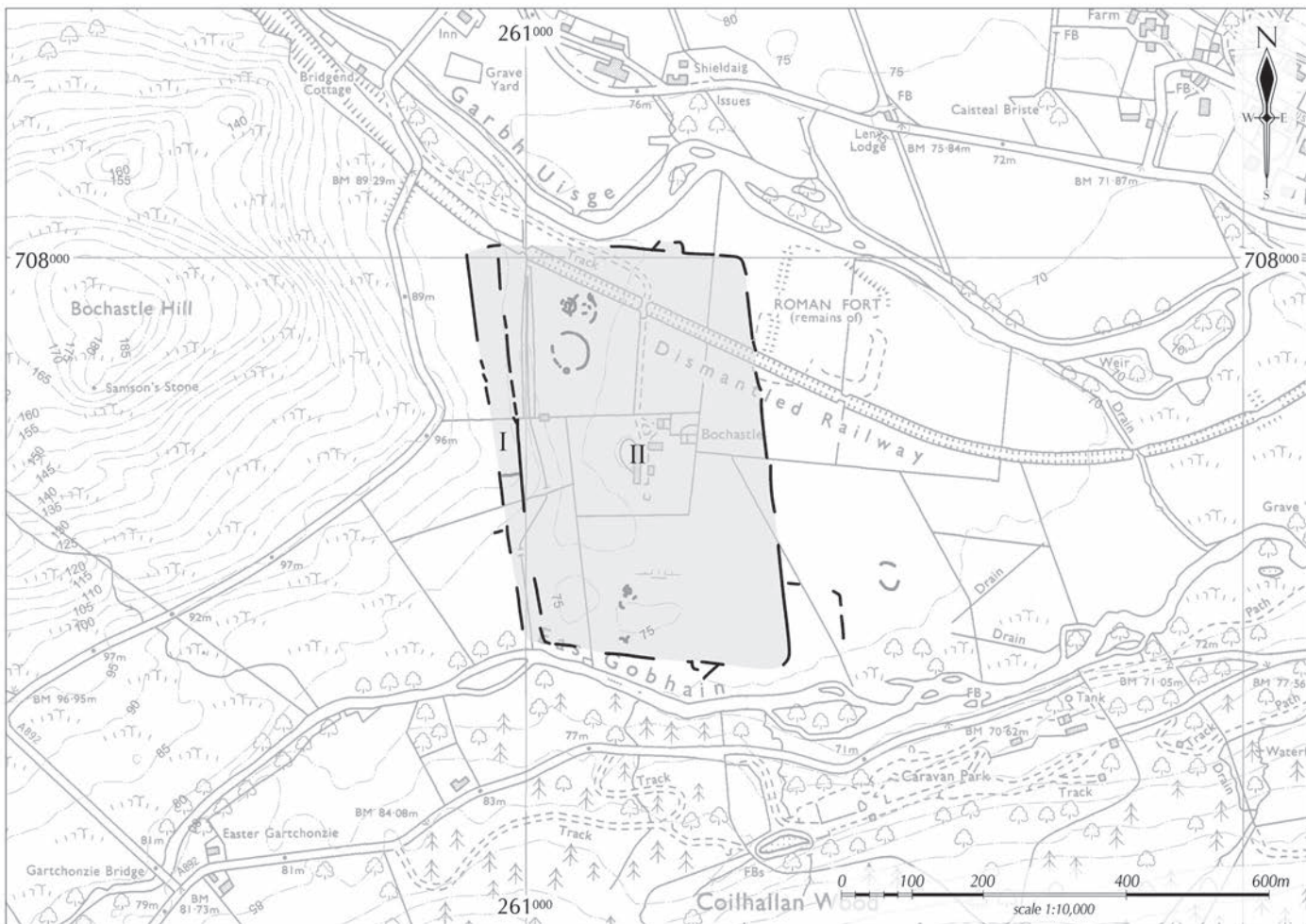


Illustration 89

Bochastle, with the Roman fort to the east and other cropmarks. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Bochastle (illus 47 & 89)

(Callander)

Bochastle I: NN 6117 0772 Bochastle II: NN 6117 0772
NN 60 NW 3 NN 60 NW 3

The camps at Bochastle, lying immediately to the west of Bochastle Roman fort, were first discovered in 1945 by St Joseph from the air. The site lies to the west of Callander on low-lying ground between the Eas Gobhain and the Garbh Uisge in the upper reaches of the River Teith. The ground rises sharply to Bochastle Hill to the west. The dimensions of the camp are some 570m in length from north to south by 384m across, enclosing some 21.4ha (almost 53 acres). An interior linear cropmark in its western sector probably represents a secondary phase of use. This reduces the width of the camp (II) to about 341m, enclosing an area of 19.5ha

(just over 48 acres). The camp has Stracathro-type gates in its north and south sides; these lie opposite one another, east of the centre. No obvious gates are recorded in the east or west sides. Excavations on the north side of the camp in 1969 by St Joseph revealed a ditch which he interpreted as not conclusively Roman, measuring up to 4.2m wide and 1.4m deep (RCAHMS St Joseph Collection: Notebook 5). A further evaluation on the north side in 1988 revealed no archaeological remains (Duffy 1998a).

A small enclosure attached to the south part of the east side of the camp, close to the corner, may represent

the remains of an annexe or attached camp, although its Roman origin is by no means confirmed. It measures 78m by at least 66m, thereby enclosing a minimum

additional 0.53ha (1.3 acres). If it were Roman in date, it could relate to either phase of occupation of the camp site.



Illustration 90

Aerial view of Broadlea II and the Neolithic henge, taken from the north-west in 1978. © Crown copyright: RCAHMS. SC342793.
Licensor www.rcahms.gov.uk.

Broadlea (illus 47, 86 & 90)

(Birrens)

Broadlea I: NY 2178 7481 Broadlea II: NY 2199 7466
NY 27 SW 2 NY 27 SW 3

The two camps at Broadlea lie close to the fort and camps at **Birrens**. Camp I was first recorded in the 1940s by St Joseph as cropmarks from the air. It measures 296m from WSW to ENE by at least 127m, but its north side has not been recorded from the air (and may be obscured by the present-day course of the Mein Water and the railway from Carlisle to Lockerbie). At least 4.8ha (almost 12 acres) is known to be enclosed, and there is space for a camp of some 7.3ha (18 acres) here. An entrance gap is visible close to the centre of the south side, but no additional entrance protection is recorded.

Camp II lies immediately to the south of camp I and

was recorded as cropmarks from the air in 1945 by St Joseph. It measures 120m from north-west to south-east by at least 103m, but the railway has destroyed its eastern side. It enclosed at least 1.3ha (3 acres) and probably around 1.8ha (4.5 acres). A *titulus* is visible on the south-east side, and a probable entrance gap on the south-west side. The south-west side of the camp appears to be routed through the central area of a Neolithic henge, with a gap marking the camp gate placed at one entrance to the henge and the camp corner placed at the other (Atkinson 1952: 62–3). This may indicate that the henge was still an upstanding earthwork at the time.

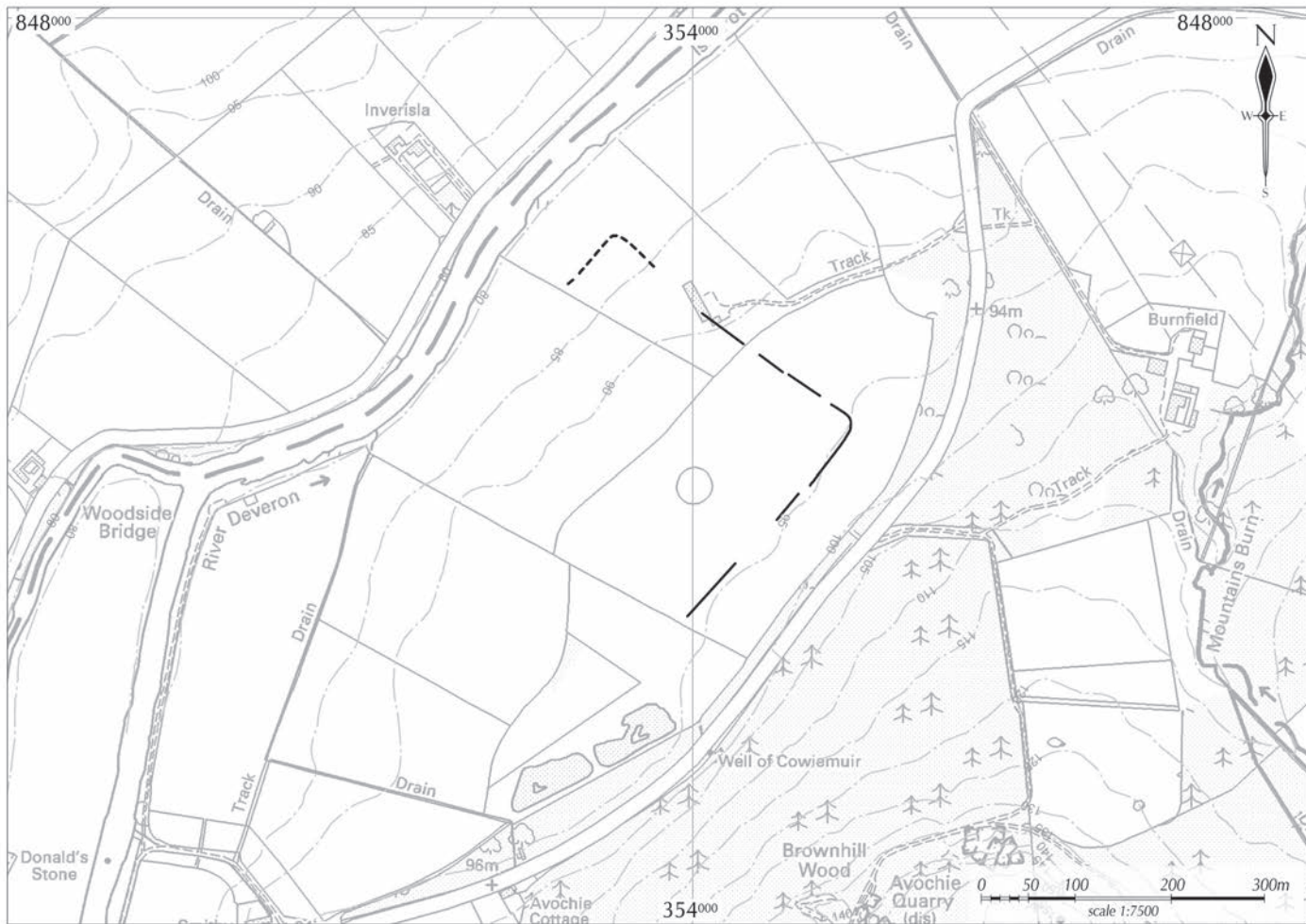


Illustration 91

Burnfield. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Burnfield (illus 91)

(Rothiemay)

NJ 5395 4757 NJ 54 NW 25

The probable camp of Burnfield was first identified from the air by Ralston in 1982, although part of the camp is visible as cropmarks on air photographs taken by Cambridge University in 1976. The site lies just to the east of the River Deveron, south-west of Milltown of Rothiemay, on a relatively flat terrace, before the ground slopes gently up to Brown Hill to the south-east. Those seeking a camp between **Ythan Wells** and **Auchinhove** had suggested Rothiemay parish as a likely location (for example, Burn 1953: 133; Henderson-Stewart 1960: 83–4). Although the camp lies within Huntly parish (Huntly lies over 7km to the south), it is close to Rothiemay. The camp currently lies in improved pasture.

Parts of the north-east and south-east sides, including the east corner, are visible on air photographs. St Joseph's

plan in the RCAHMS (DC 37267) also includes the north corner and short stretches of the adjacent north-east and north-west sides. It is presumed that these were recovered through trenching. This evidence suggests that the north-east side was about 327m in length. Information supplied to Maxwell & Wilson suggested that 360m of the south-east side had been traced (1987: 34). Thus the camp measures some 327m by possibly at least 360m, enclosing a minimum area of 11.7ha (29 acres), and St Joseph noted that it was unlikely to have exceeded 16ha (40 acres) on topographical grounds (Frere 1984: 273). The ditch was recorded as measuring 1.4m in width but only 0.5m in depth (Maxwell & Wilson 1987: 34). No obvious entrances are known, but there are various gaps in the perimeter ditch.

ROMAN CAMPS IN SCOTLAND

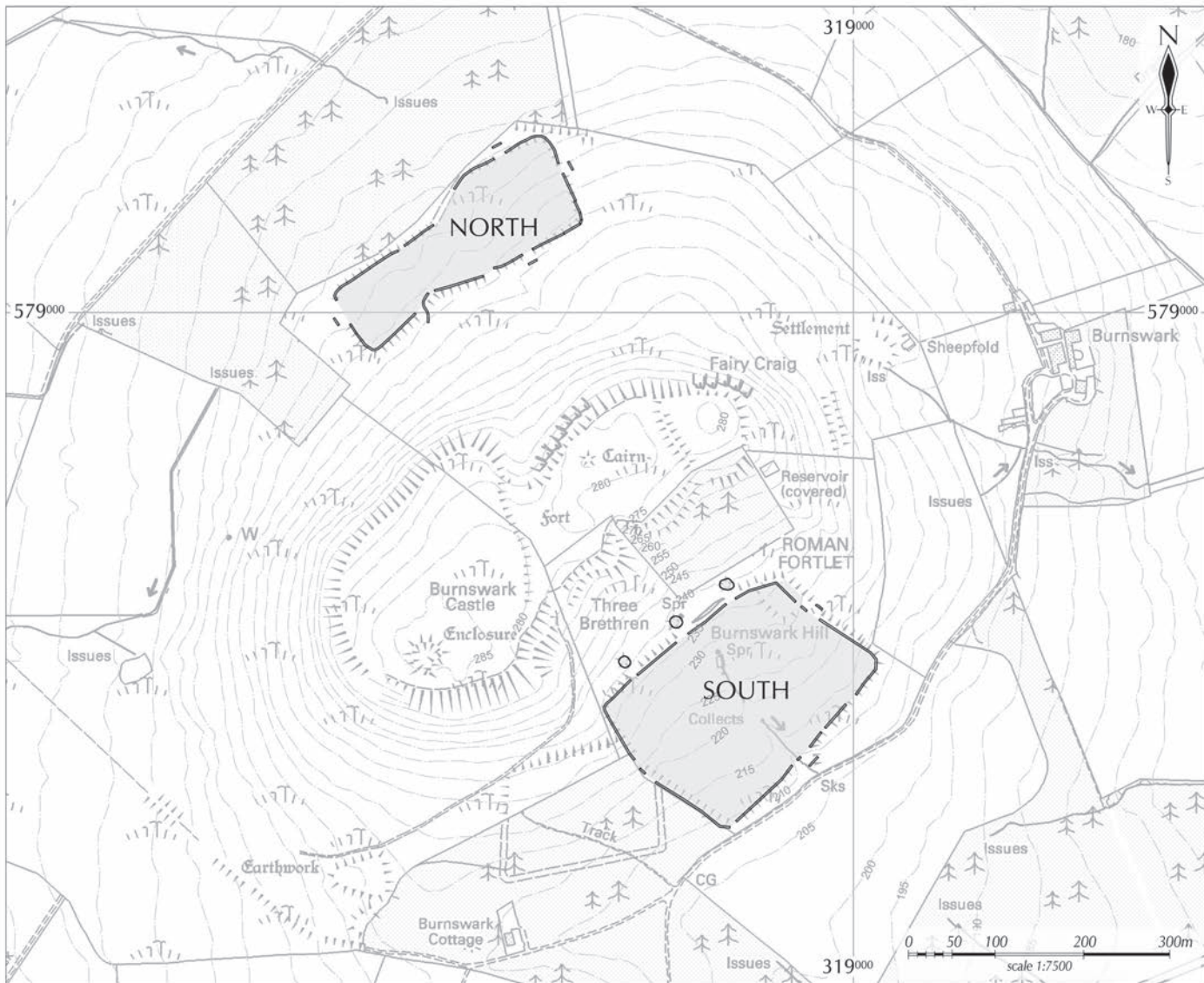


Illustration 92

Burnswark North and South. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Burnswark (illus 8, 11, 44, 47, 58 & 92)

(Birrenswark; Brunswark; Brunanburgh; Birrens-work-hill)

Burnswark North: NY 1857 7908 *Burnswark South: NY 1888 7854*
NY 17 NE 2.04 *NY 17 NE 2.04*

The flat-topped Burnswark Hill dominates the landscape of Annandale and across the Solway, and commands spectacular views from its summit. The hill is crowned by a hillfort and flanked by two earthwork camps and a presumed Roman fortlet, all of which were subject to a series of excavations in the 1890s (Barbour 1899) and then in the 1960s and 1970s (Jobey 1978).

The site has attracted considerable attention over the years since the 1720s, when Alexander Gordon recorded the two camps (1726: 16–17). This inspired a number of other antiquarians to visit (Christison 1899). The possibility that it was the site of a genuine siege gripped the imagination of many generations, although there was doubt about this for a number of years, with

the preferred interpretation being that of practice siege works (Steer 1964: 24; Davies 1972). This notion gained more credibility following excavations by Jobey, who suggested that the occupation of the hillfort was abandoned long before the Roman invasion, with the defences severely denuded by the late 1st century AD (1978: 98–9), although just because the ramparts were no longer in use does not mean that the site did not continue to be occupied as an open settlement. An alleged line of circumvallation connects the two Roman camps, but many of these appear to be field walls and tracks, and two additional earthworks on the north-east and south-west side of the hill are now interpreted as prehistoric settlements (RCAHMS 1997: 179–82). More recently, plausible attempts have been made to reinstate the two camps as the site of a genuine siege (Campbell 2002; 2003; Davies 2006: 57–60; Keppie 2009; Hodgson 2009: 187 – see above, Chapter 2.2), with the alleged circumvallation not required. Various Roman weapons including spearheads, lead sling-bullets (*glandes*, recently interpreted as catapult ammunition, Rihll 2009), iron arrowheads and stone ballista balls have been found on the hill during the various excavations and fieldwork (Anderson 1899; Cormack 1959; Jobey 1978: 86–91). Roman finds broadly date from the 1st to the 2nd century AD (Jobey 1978: 82–96).

The camp on the north side of the hill is an unusual shape and gives the impression of two separate camps that have been joined. Collingwood felt that the camp had never been completed and that the layout reflected errors by the Roman army constructing the site (1927: 49–51). Certainly, an area of boggy ground on the north-west side has resulted in a gap, which may never have been fully built (*contra* Crawford 1939: 286), but alternative means of protection were probably employed. The camp measures about 296m from ENE to WSW by up to 112m in width and enclosed around 2.6ha (6.5 acres). Entrance gaps protected by *tituli* are visible on four sides, with an apparent reverse external *clavicula* also visible on the south-east side. The wide gap at the south-west entrance is probably the result of erosion by a nearby burn.

From the morphology of this camp, it is possible that it started life with a smaller square camp at its east side, which was subsequently extended, although St Joseph tested this theory by excavation and failed to locate any evidence (1952a: 98). Excavations recorded that the ditch was rock-cut in places (Barbour 1899: 233). St Joseph's excavations in the 1940s noted that the rampart comprised some 0.3m of clean red clay standing on two or three courses of turf (1952a: 98).

The south camp is equally unusual, although the earthwork is closer in form to the more usual rectangle. It measures about 260m from north-east to south-west by around 194m, enclosing almost 4.8ha (nearly 12 acres). There is a spring bisecting the camp, known locally as 'Agricola's Well'.

This camp overlies a presumed Roman fortlet situated in its northern corner, itself cut by later round-house platforms which appear to have partly utilised its perimeter (RCAHMS 1997: 181–2). Recent reassessment of the enclosure has postulated that it may not be a fortlet but relate to Iron Age occupation (H Welfare & S P Halliday pers comm). Detailed topographic survey of the enclosure and camp identified potential earlier features, and it has been suggested that some of these may indicate an earlier camp (Maxwell 1998a: 49).

The unusual element of this camp relates to its gates: while *tituli* are visible in the north-east, south-east and south-west sides (the latter not depicted on illus 92), the north-west side possesses three entrances protected with circular platforms (known as 'The Three Brethren'). These measure some 3.5m high and are up to 15m across, and are frequently interpreted as 'ballista platforms' or '*ballistaria*' (for example, see Maxwell 1998a: 46–9). Two of these were partially excavated by Barbour, who recorded that the mound of the central one was some 3.65m above the surface of the gateway and some 3.2m above the bottom of the ditch, which dips around 0.6m into the rock and is also partially stone-faced (1899: 227). The suggestion that these apparent enlarged *tituli* housed some form of artillery machinery was challenged by Campbell, who suggested that their enlargement was due to camp protection: the deflection of 'heavy and destructive objects' rolled towards the camp (2003: 29). However, he has since accepted the possibility that they are '*ballistaria*'.

Excavations in the north corner of the camp by the enclosure/fortlet recorded that the ditch was some 5.5m wide and 1.8m deep and cut through soft bedrock. The rampart was up to 1.5m high, with a number of stones acting as a kerb, suggesting that its width was 6.5m (Jobey 1978, 81). Earlier excavations had recorded that rampart and ditch were frequently 'lipped with stones', with the ditch some 3.6m wide and 2.7m deep, and the rampart 3.3m high (Barbour 1899: 224, fig 1). Barbour also recorded pavements in the gateways and camp interior, including the remains of a building in its centre (1899: 227–8). Later excavations by Jobey failed to locate this building, although an area of paving was noted (1978: 82).

Barbour's excavations implied a level of permanency in the occupation of this camp, or certainly prolonged occupancy, with paved roads and building debris, although because some of the latter could not be located by Jobey it is possible that some of Barbour's findings may have been over-interpreted (Barbour 1899: 224–31; Jobey 1978: 79–82).

The date of the occupation of the camps is unknown. It has been assumed that the enclosure/fortlet, if Roman, is Antonine in date, like many of the fortlets in south-west Scotland. If this were the correct interpretation, then the southern camp could relate to a

practice siege, or an actual siege of the hill, possibly during the alleged troubles of AD 155–8 (Jobey 1978: 57; Hodgson 2009), during the campaigns of Ulpus Marcellus in the 180s (Frere & St Joseph 1983: 34) or perhaps even as late as Severus (Keppie 1989: 67). If an earlier camp pre-dated this postulated Antonine fortlet, then a Flavian occupation could be expected. But if the corner earthwork is an Iron Age enclosure rather than a Roman fortlet, then the date range is broader. Although the apparent *clavicula* on the north camp would favour a 1st-century date (see section 7b), its form is unlike all other *claviculae* in Scotland. Burnswark remains an enigmatic site.

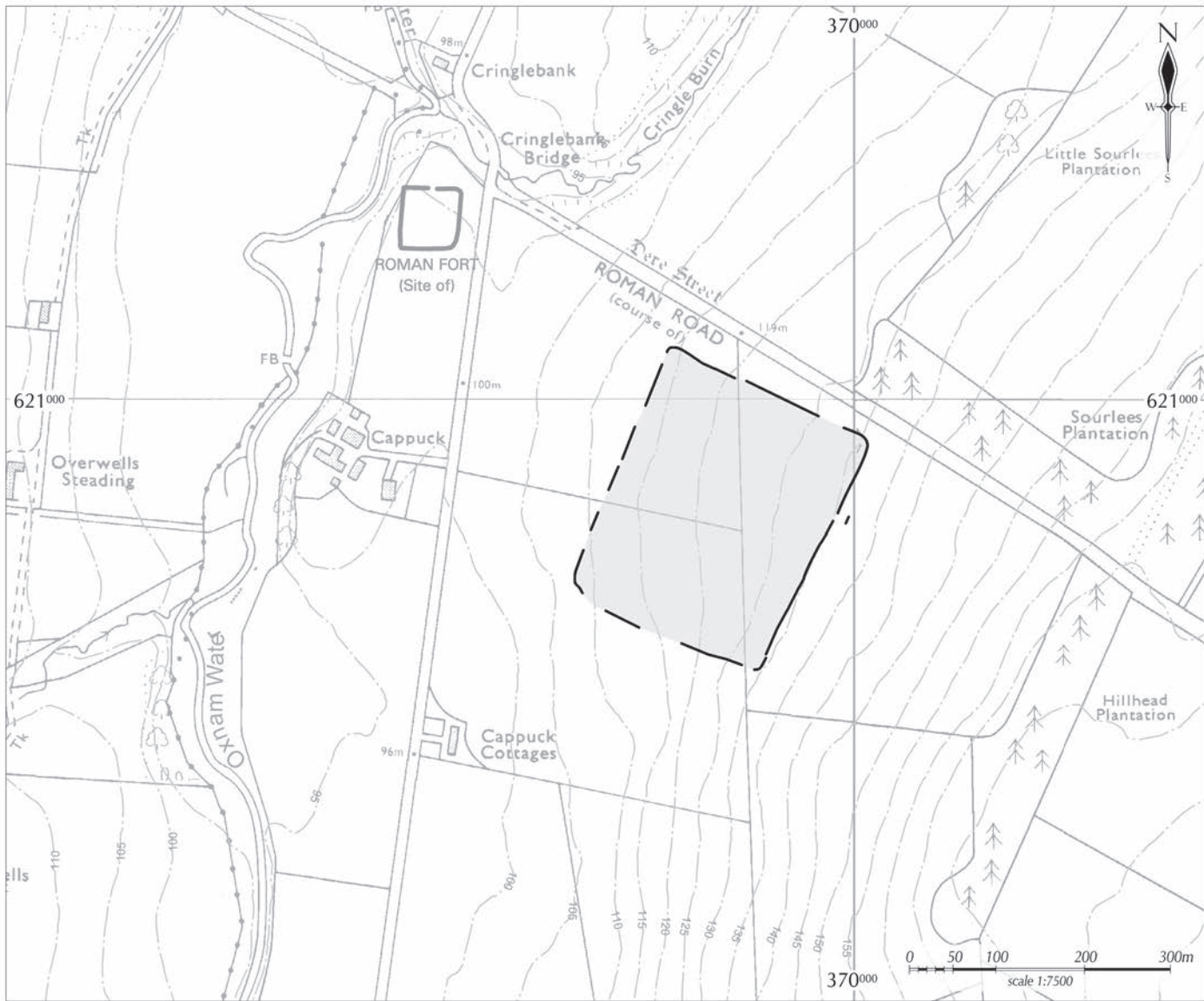


Illustration 93

Cappuck, with the Roman fort to the west. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Cappuck (illus 47 & 93)

NT 6990 2090 NT 62 SE 42

First recorded in 1958 by St Joseph as cropmarks from the air (1961:121), this camp lies some 300m SE of the Roman fort at Cappuck, on gently sloping ground immediately south-west of Dere Street. The camps at **Millside Wood** and **Ulston Moor** lie across the Oxnam Water a short distance to the north-west. The camp measures some

303m from NNE to SSW by 245m transversely, enclosing 7.5ha (18.5 acres). A large gap in the SSW side may relate to the position of an entrance; a second possible entrance on the ESE side, towards the east corner, appears to be protected by a *titulus*.

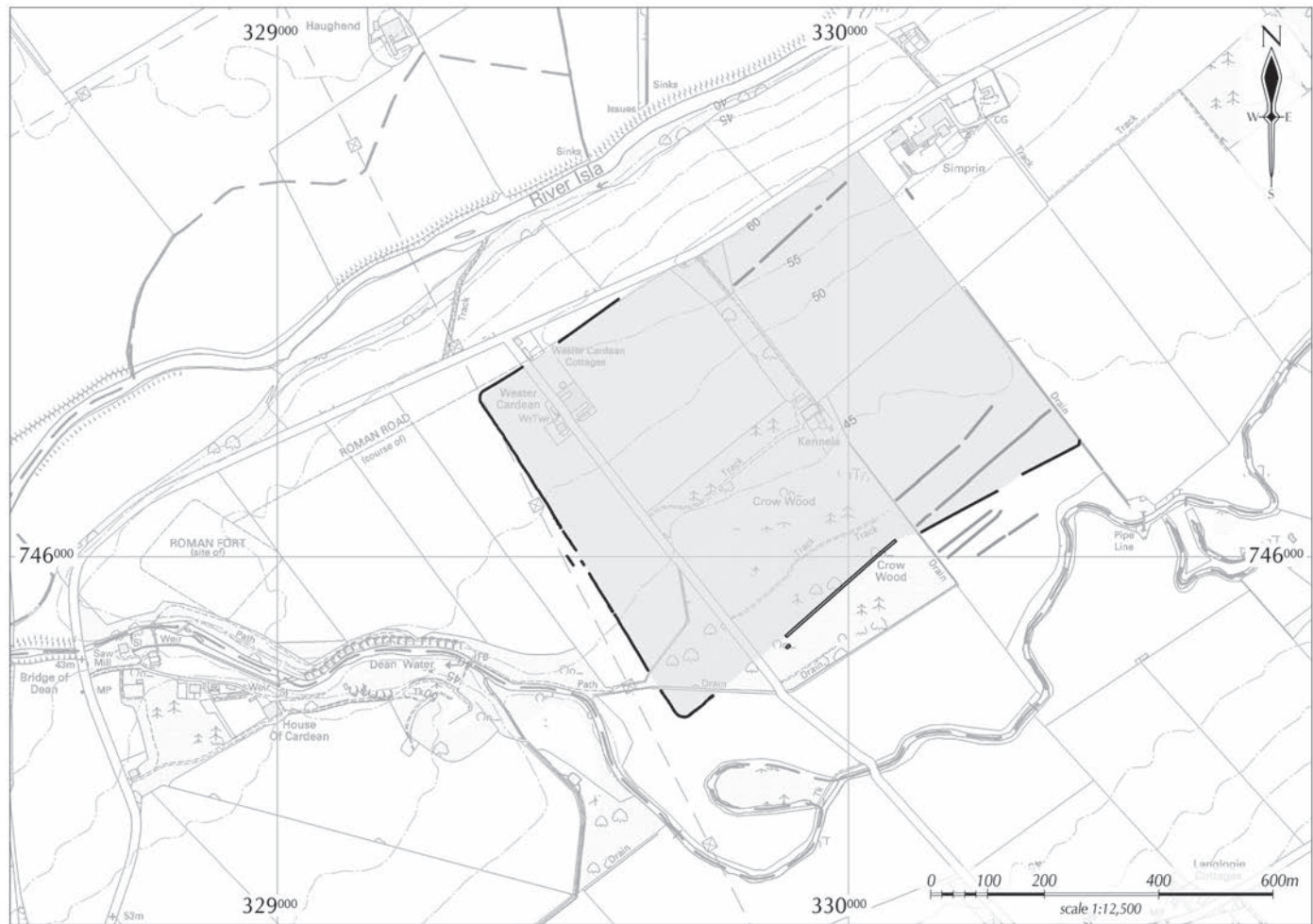


Illustration 94

Cardean I with the Roman road and Roman fort to the west. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Cardean (illus 47 & 94)

Cardean I: NO 2990 4630 NO 24 NE 15

The camp at Cardean was discovered from the air by St Joseph in the early 1950s (St Joseph 1955: 87), just to the east of the Flavian fort. Both fort and camp lie on a triangular plateau east of the confluence of the River Isla and the Dean Water. The village of Meikle lies just over 1km to the south-west.

The camp lies on ground that slopes gently to the north, with a road running along its northern perimeter. It is orientated from south-west to north-east, with the whole of the south-west side, two rounded corners and parts of the south-east and north-west sides visible as cropmarks on air photographs. Part of the south-east side survives as an upstanding earthwork in Crow Wood, accentuated by a drainage ditch. However, there are several large drainage ditches cutting through the wood, and another drainage

ditch had been mistaken for the camp in the past as a result of the south corner being assumed to lie in the field north of the western spur of the Wood (Ordnance Survey NO24NE, published 1977, from information supplied by St Joseph). St Joseph recorded that two small trenches on the south-east side in the east part of Crow Wood did not find the ditch, and he proposed that this was therefore the position of an entrance (1973: 224). The east part of the south-east side lies in a field of linear cropmarks (presumably for drainage), but can be discerned running up to the field boundary, and was confirmed in trenches by St Joseph (RCAHMS St Joseph Collection: Notebook 7). The north-east side is unclear, although there are faint traces of a linear cropmark on air photographs, and St Joseph also recorded it from the air and through trial trenches (1955:

87; 1973: 224; RCAHMS St Joseph Collection: Notebook 7). He plotted it running immediately east of the field boundary (RCAHMS DC 37284) and excavated small trenches here in 1975 (RCAHMS St Joseph Collection: Notebook 7). This gives the camp overall dimensions of some 830m from north-east to south-west by around 650m transversely, enclosing 54ha (133 acres).

An entrance gap, protected by a *titulus*, is visible in the centre of the south-west side. On the south-east side, at

the point where the drainage ditch stops and turns sharply to the south, there is a low mound, about 10m in length, 5.5m broad and a maximum of 0.4m high, which may represent the traces of a *titulus*.

Trenches by St Joseph recorded that the ditch of the camp was up to 3.6m wide and 1.75m deep. He also noted a possible second camp lying within this camp (**Cardean II**, see possible camps), with ditches recorded on the north-west and south-east sides.

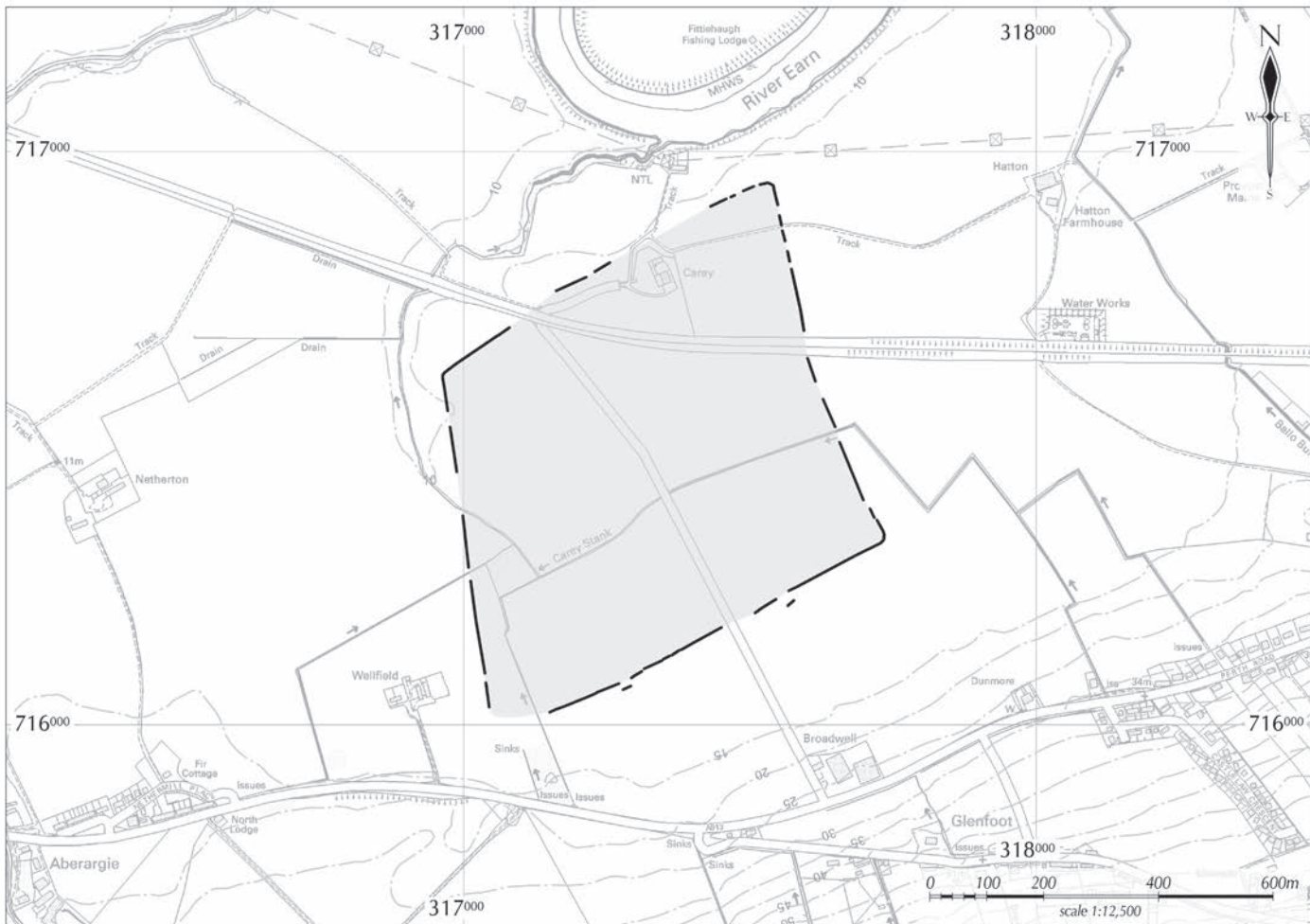


Illustration 95

Carey. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Carey (illus 47 & 95)

(Abernethy)

NO 1730 1650 NO 11 NE 27

The camp at Carey, near Abernethy, was first recorded from the air by St Joseph in 1971 (1973: 219–20). It lies on a level terrace immediately south of the River Earn, close to where it meets the River Tay. The fortress and camps at **Carpow** lie some 3km to the ENE. The embankment for the railway line from Perth to Ladybank cuts through the northern part of the camp, and the Carey Stank, a small burn now canalised, also cuts across it.

Parts of all four sides of the camp have been recorded as cropmarks. It is rhomboid in shape, measuring some 670m from WSW to ENE by around 663m transversely, enclosing 44.6ha (110 acres). A change of direction in the ENE side close to where the railway line crosses probably indicates the position of an entrance gap, and

there are two entrance gaps in the SSE side, protected by *tituli*; it probably had six in total. St Joseph placed trenches through the NNW, ENE and SSE sides in 1971 and 1972, recording that the ditch was 1.1m deep and 2.3m wide on the NNW side, but only 0.8m deep and 1.5m wide on the SSE side (RCAHMS St Joseph Collection: Notebook 6). A small fragment of samian was found in the ditch on the SSE side, identified as south Gaulish and probably late 1st century (St Joseph 1973: 220). More recent attempts to locate this sherd have proved unsuccessful (Dunwell & Keppie 1995: 60n).

Owing to its size and morphology, the camp is regularly compared with the camp at **Dunning**, some 15km to the west (St Joseph 1973: 218–20).

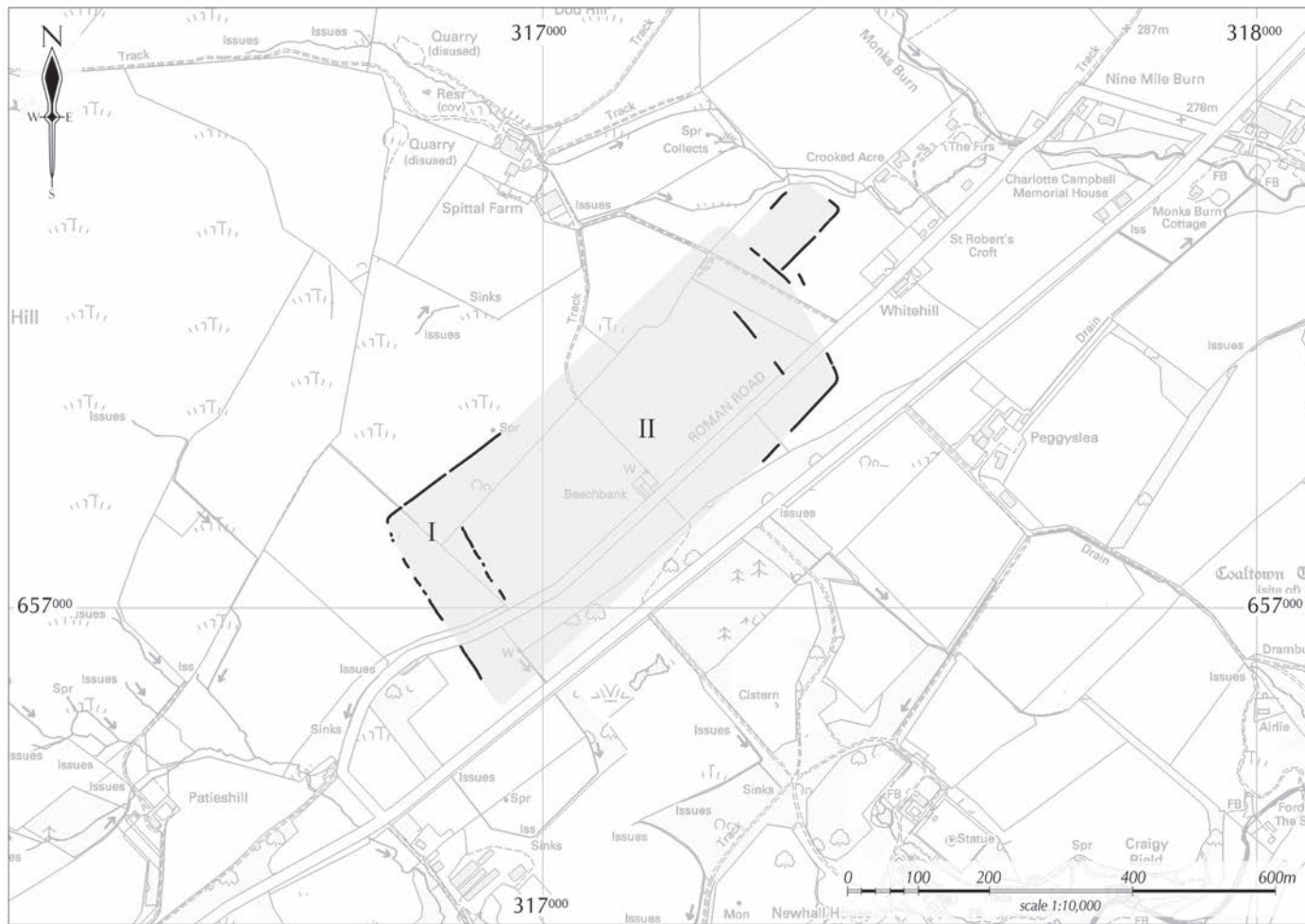


Illustration 96

Carlops Spittal I-II. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Carlops Spittal (illus 47, 70 & 96)
(Carlops)

Carlops Spittal I: NT 1715 5725
NT 15 NE 30

Carlops Spittal II: NT 1715 5725
NT 15 NE 30

First recorded in 1984 by RCAHMS from the air (Frere 1986), this camp lies on a ridge above the village of Carlops, on sloping ground on the south-east side of the Pentland Hills. The full extent of the cropmarks suggest that the camp measured about 672m from north-east to south-west by 272m transversely, enclosing 18.8ha (46 acres). There appears to be a *titulus* close to the centre of the north-east side. Excavations by Maxwell in 1985 revealed that the ditch was about 2.8m wide and about 1m deep on the lower ground (Frere 1986: 371).

An annexe was recorded in 1996, extending from the north-east part of the camp and overlapping with a settlement enclosure (not depicted on illus 96). This annexe

is elongated, measuring some 122m to the north-east by 71m, thereby enclosing an additional 0.86ha (2.1 acres).

Two linear cropmarks, located 85m from the north-east and 90m from the south-west ends suggest that the camp has been reduced on at least one occasion. These two may be contemporary with each other, or represent two phases of reduction or increase in the size of the camp. This second camp may be only 473m in length if the two linear cropmarks bisecting the first are contemporary and relate to a reduction in the size of the camp, only reusing stretches of the north-west and south-east sides. This would result in a camp of some 14ha (35 acres). No entrances are known.

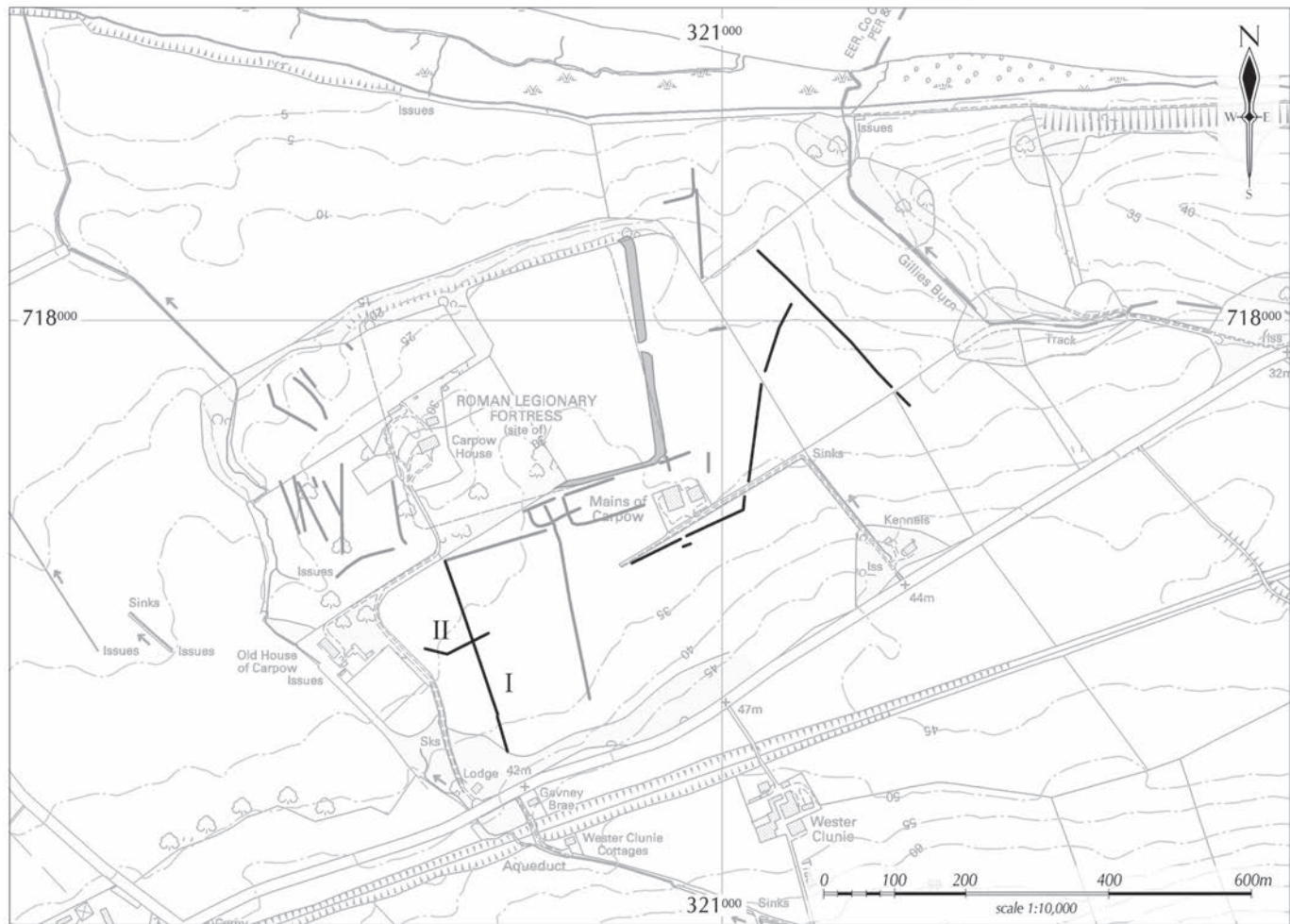


Illustration 97

Selected cropmarks at Carpow I-II thought to relate to the Roman period. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Carpow (illus 97)

Carpow I: NO 2105 1755
NO 21 NW 58

Carpow II: NO 2105 1755
NO 21 NW 58

The fortress and camps at Carpow lie on the south side of the River Tay, a short distance east of its confluence with the River Earn. The site has been identified as *Horrea Classis* (Ordnance Survey 1956); excavations have revealed that the fortress appears to date to the Severan campaigns in Scotland (Birley 1965; Dore & Wilkes 1999), although one of the inscriptions has been proposed as dating to the reign of Commodus (RIB 3512: Tomlin, Wright & Hassall 2009: 458–61).

First recorded in the early 1970s by St Joseph from the air (1973: 220–3), camp I consists of linear cropmarks representing the north-east and south-west sides. These indicate that it measured around 670m from north-east to south-west by at least 300m transversely. Excavations by St

Joseph recorded a V-shaped ditch which was 0.15m deep and 0.75m wide on the east side (RCAHMS St Joseph Collection: Notebook 6). Other trenches appear to have recorded a U-shaped ditch (sketches in Notebooks 6 & 7). Just to the south of the intersection with camp II, the ditch was drawn as $\approx$ 2.1m wide and 0.6m deep. Other trenches on this side suggest that it was as much as 2.8m wide and 1.2m deep, and the butt end for an entrance was also noted, with a drain across the causeway (Notebook 5).

But St Joseph's notebooks are unclear as to where many of his trenches lay. Another trench is recorded as 3m in width and 0.9m in depth with a stone drain cut into the bottom (Notebook 5). He appears to suggest an entrance

causeway in the west side, but this is not depicted on his plans (1973: fig 13; RCAHMS DC 37302).

The east side of the camp is not clear from the air photographs. St Joseph recorded it running north from the plantation at Carpow kennels (1973: fig 13) and much of this evidence probably came from his excavations. A further linear cropmark of a different characteristic to the numerous drains in the area lies to the east and is some 300m in length. It is unclear whether this is part of the camp which St Joseph recorded, or potentially a further camp.

The camp potentially encloses part of the presumably later Severan fortress (Dore & Wilkes 1999), and St Joseph suggested that its north limit may be similar to that of the fortress, lying at the crest of a ridge. This would mean that the camp would measure some 670m by at least 640m and enclose at least 43ha (106 acres).

Camp II is an irregular polygonal enclosure which appears to enclose the Severan fortress. Recorded in the 1960s by St Joseph from the air (1969: 110), the south side is some 462m in length, with stretches of the two adjacent sides splaying off to the north-east (290m+) and north-west (34m+). If the camp continues on this alignment up to the north limit of the fortress, as proposed for camp I, then it could extend some 460m to the north and enclose some 26.6ha (65.9 acres). An entrance gap and *titulus* is visible in the eastern part of the SSE side. A second *titulus* to the west was recorded by St Joseph (1969: 110) but could not be corroborated from the air photographs. Excavations recorded that the ditch of this enclosure or camp measured up to 3.35m in width and 1.4m in depth, and cut through the filling of the ditch of camp I and was therefore later (St Joseph 1969: 110; 1973: 221).

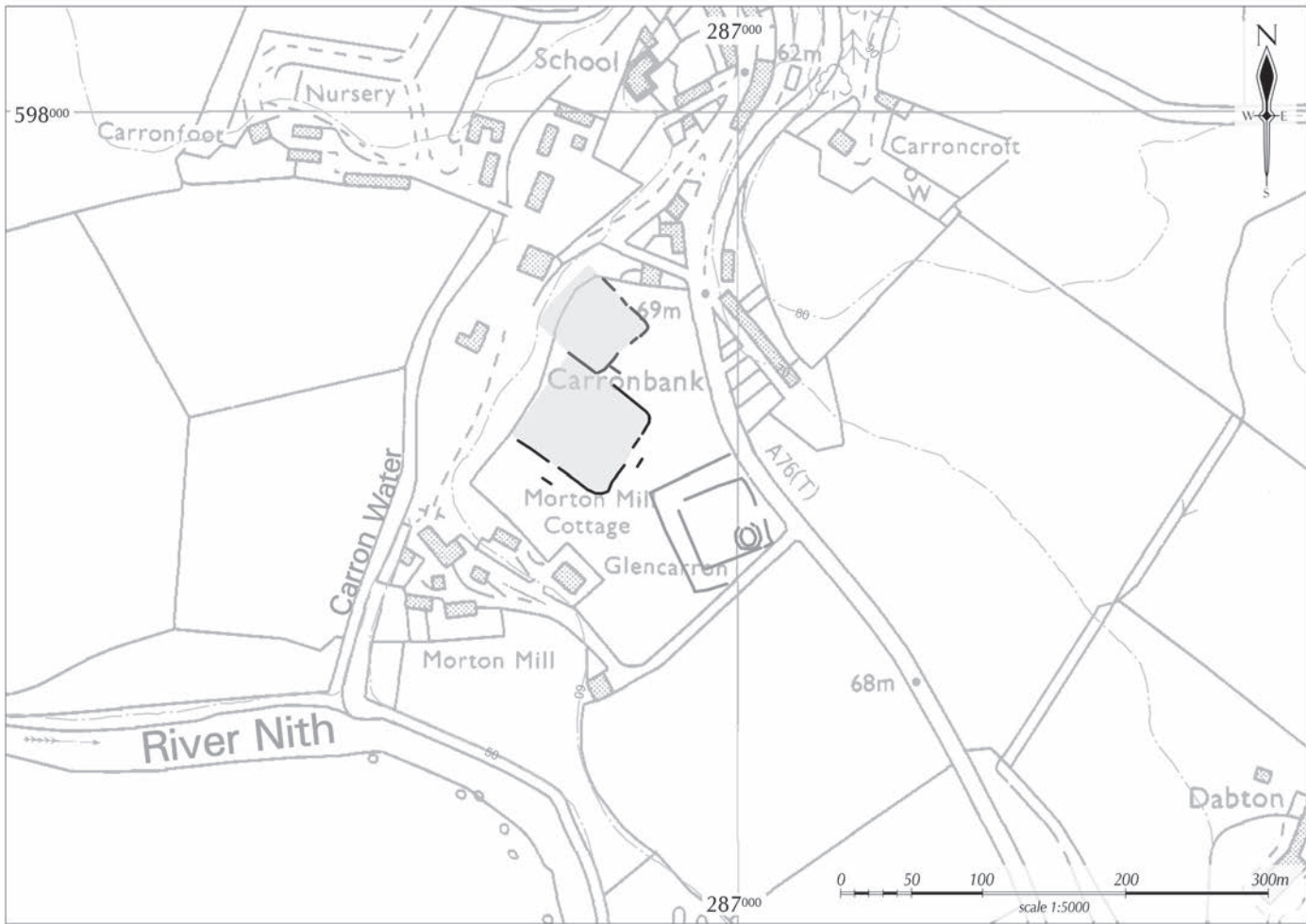


Illustration 98

Carronbridge, with the Iron Age settlement to the south-east of the camp. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Carronbridge (illus 47 & 98)
 NX 8687 9779 NX 89 NE 4

First recorded in 1949 by St Joseph from the air as crop-marks (Clarke & Webster 1955: 9), the camp at Carronbridge lies not far from the fort and camps at **Drumlanrig**, on the east bank of the Carron Water, a tributary of the River Nith. It is sited next to an Iron Age/Romano-British settlement that has been extensively excavated (Clarke & Webster 1955; Johnston 1994).

Measuring 69m from north-east to south-west by at least 72m transversely (the north-west side is obscured by trees), the camp probably enclosed just over 0.5ha (1.3 acres). *Tituli* are recorded on the south-west, south-east and north-east sides.

The camp cuts across an earlier enclosure with which it is aligned. This earlier enclosure was originally thought to be a Roman fortlet (Clarke & Webster 1955: 31) but was later interpreted as a pre-Roman Iron Age enclosure

with an internal palisade whose ditch was over half full when the camp was built (Johnston 1994: 285–6).

Excavations in 1989–90 recorded that the camp ditch followed that of the earlier enclosure where the two intersected. Seven pits were located just inside the Roman camp ditch which contained charred emmer wheat. A probable oven was also excavated outside the camp and cutting the palisade trench and inner edge of the ditch of the earlier enclosure: this was presumed to belong to the camp and was radiocarbon dated to *c* AD 25–240 (Johnston 1994: 255–9). Although the earlier enclosure may be Iron Age in date, the dimensions and profile of its V-shaped ditch (2.4–3.35m in width, 1.06–1.28m in depth) together with its alignment with the camp means that the possibility of a Roman origin should not be entirely ruled out.

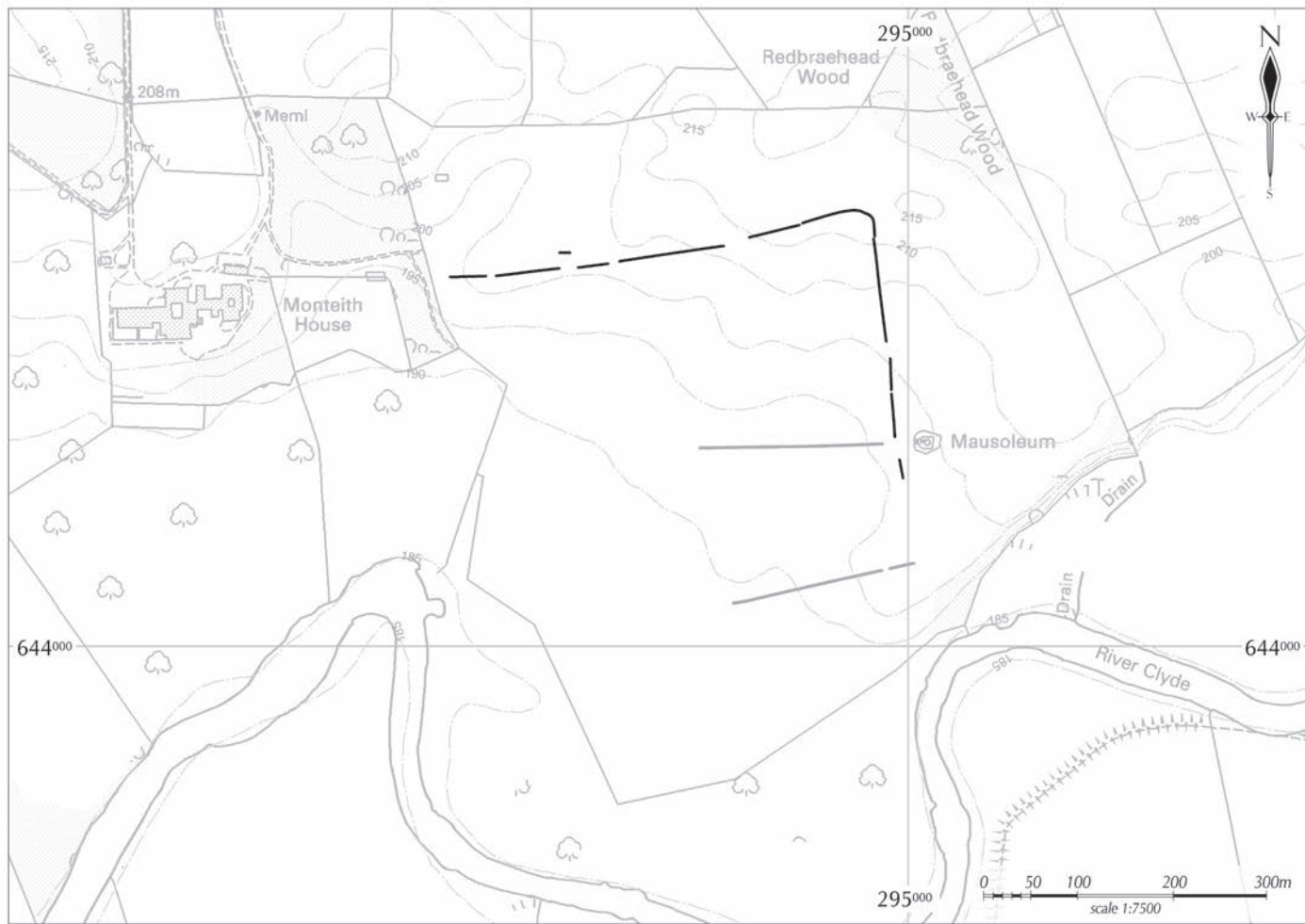


Illustration 99

Carstairs Mains. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Carstairs Mains (illus 99)

NS 9474 4430 NS 94 SW 22

First discovered in 1978 by RCAHMS from the air (Frere 1984: 276), this camp lies some 1.7km east of the fort and camps at **Castledykes**, on the north side of the River Clyde, close to the presumed line of the Roman road running towards **Lyne** and Easter Haprew.

At least 462m of the north side has been recorded through cropmarks, together with a rounded north-east angle and part of the east side. The north side exhibits an entrance gap protected by a *titulus*, together with a probable second entrance to its east, accompanied by a slight change of alignment. Maxwell & Wilson stated that two entrances with *tituli* were visible in the north side, but they did not depict the second *titulus* on their

accompanying plan (1987: 35–6, fig 11) and it could not be verified on air photographs. The south-east corner and south side of the camp depicted by Maxwell & Wilson could not be verified (1987: fig 11); their south side is almost on the same line as an avenue running from the nearby Roman fort at Castledykes to a Mausoleum, depicted on the 1st edition of the Ordnance Survey map (Lanarkshire 1864: sheet xxxii). A further linear cropmark visible to the south of this line could represent the south side of the camp. This would give transverse dimensions of some 365m, and the camp is therefore likely to have enclosed at least 16.8ha (over 41 acres).

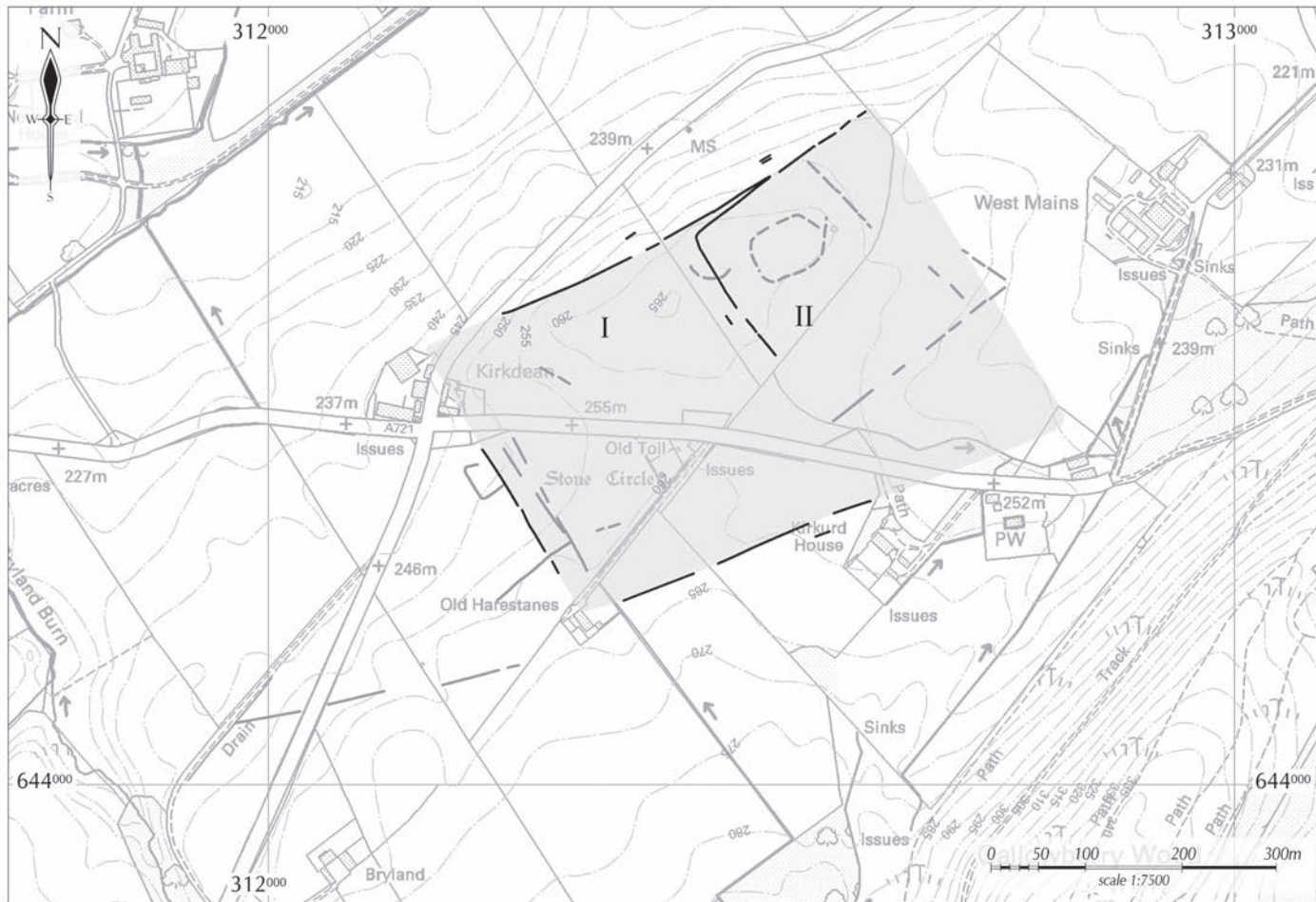


Illustration 100

Castlecraig I-II, including other cropmarks in the area. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Castlecraig (illus 47, 56 & 100)

Castlecraig I: NT 1256 4455
NT 14 SW 46

Castlecraig II: NT 1250 4450
NT 14 SW 37

The two intersecting camps at Castlecraig by Kirkurd lie close to the line of the Roman road between **Castledykes** and **Lyne**/Easter Happrew and not far from the road running up the east side of the Pentland Hills. They are sited on undulating land below Galloberry Wood. Both were discovered as cropmarks by St Joseph from the air: the first in 1964 and the second four years later (1965: 79; 1969: 108).

Only part of the perimeter of each camp is known. Camp I, the larger of the two, measures at least 525m from south-west to north-east by 332m transversely, enclosing at least 17ha (42 acres) and possibly some 21.1ha (52 acres). A *titulus* is visible in the south-east side, and two are visible in the north-west side. A number

of linear cropmarks confuse the south-west side of the camp, and no entrance is clearly discernable on this side. One cropmark has an additional enclosure attached, but this does not appear to be an annexe and does not look Roman in form.

A second camp (**Castlecraig II**) is partially recorded on a slight knoll within camp I.

The visible part of the north-west side lies at a slight angle to the that of camp I, and the two camps come together at the entrance gap, protected by two *tituli*, presumably one for each camp. Some 150m of the south-west side of this camp is visible, with an entrance gap and *titulus* two-thirds of the way along this side. Of the north-west side, 111m up to the *titulus* is known; beyond this, the

camp may have used the north-west perimeter of camp I, but this is unknown.

If the known gate on the north-west side represents the centre of that side, then the camp's cross dimension would be 220m, suggesting that it enclosed at least 3.3ha (8.2 acres), and, given the location of the other entrance and the topography, may have enclosed some 4.3ha (10.7 acres). A number of linear cropmarks are visible to the

south-east, but none can be confidently assigned to the camp.

The denuded remains of a stone circle survive within camp I's perimeter (RCAHMS 1967: 63), and the cropmark remains of a settlement are visible within both camps alongside a probable palisaded enclosure, which overlaps the perimeter of camp II.

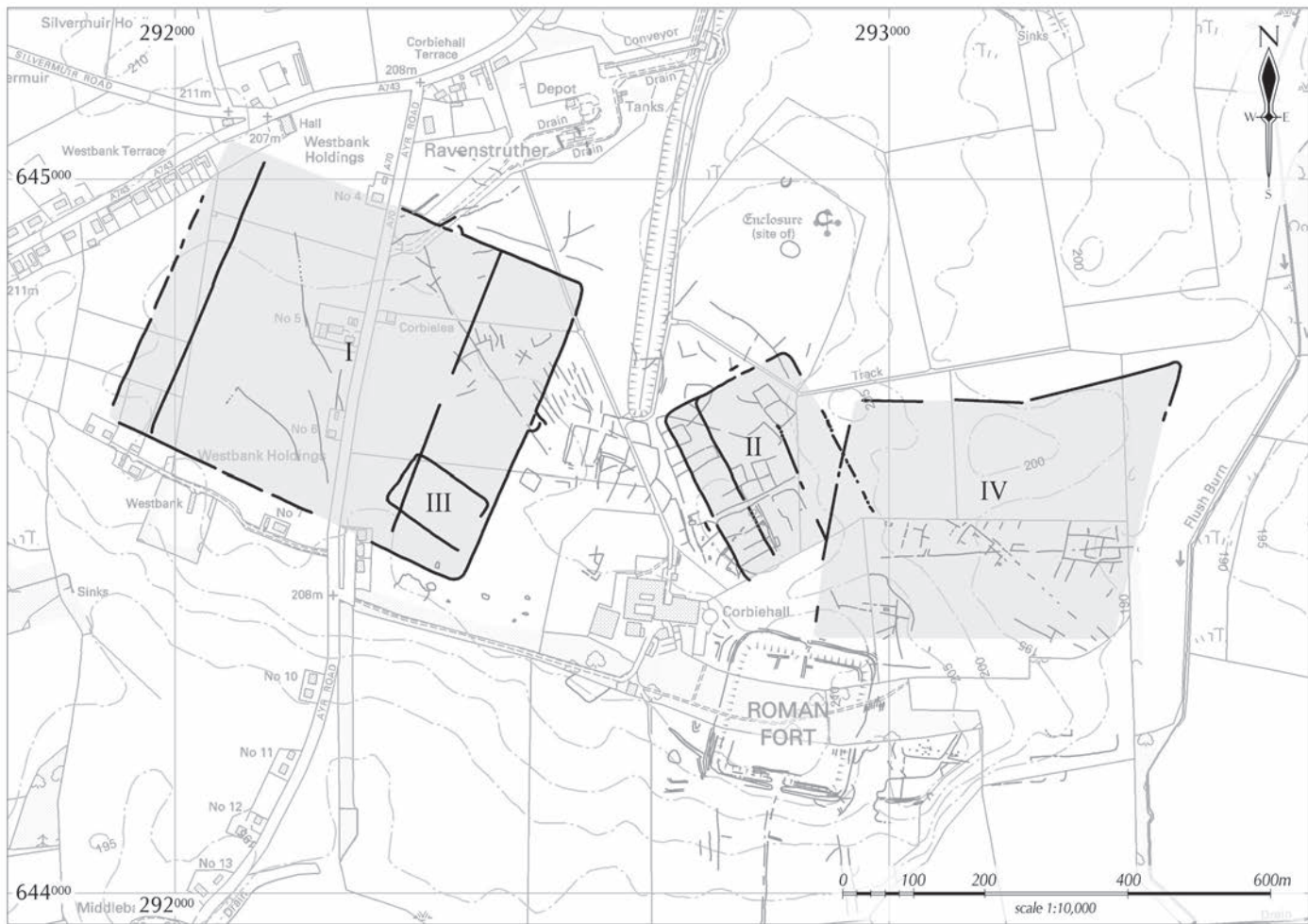


Illustration 101

Castledykes I–IV with other cropmarks in the area including the Roman fort and its annexes and the field system. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Castledykes (illus 23, 47, 59, 101)

Castledykes IA & B: NS 9220 4475
NS 94 SW 7.02

Castledykes IIA & B: NS 9283 4460
NS 94 SW 7.03

Castledykes III: NS 9236 4455
NS 94 SW 7.04

Castledykes IV: NS 9315 4451
NS 94 SW 7.6

The fort of Castledykes lies just above the River Clyde, east of Lanark. It was extensively excavated from the 1930s to the 1950s and successive Flavian and Antonine forts were recognised (Robertson 1964a; RCAHMS 1978a: 124–7).

Annexes are visible to the south and west of the fort, and several lie to the east. One enclosure here was proposed as a labour camp for the Antonine fort, dated by its finds (Robertson 1964a: 150–1). It also appears to have been used as an annexe, possibly for an extra-mural settlement or working area (RCAHMS 1978a: 127).

Surrounding the fort, some four temporary camps have now been identified through cropmarks (two demonstrating at least two phases of occupation), with three further camps nearby, at **Cleghorn** and **Carstairs Mains**.

Camp I, lying north-west of the fort, has at least two phases of occupation (A & B), evidenced by reducing ditches on both the east and west sides of the camp. It was first discovered in 1946 by St Joseph from the air (1951a: 57), with its secondary use recognised in the 1960s. The camp measures some 548m from north-west

to south-east by 437m transversely, enclosing almost 24ha (59 acres). Additional linear cropmarks running NNE to SSW across the south-east and north-west end of the camp presumably represent a reduction in its size for a second phase, but it is unclear whether the two cropmarks relate to contemporary occupation or to successive phases of use. If contemporary, then the reduced camp measures 357m by 437m and enclosed 15.7ha (almost 39 acres).

The larger camp (IA) is equipped with Stracathro-type gates on its north-east and south-east sides. Excavations at the north-east gate in 1987 recorded that the ditch of the camp was 1.95m wide and 0.6m deep; that at the *clavicula* was 1.1m wide and about 0.5m deep; and the ditch extending across the west part of the gateway was 1.5m wide and 0.25m deep. The entrance itself was 10m wide. Three stake holes were dug into the end of the *clavicula* ditch, which were interpreted as evidence of fencing (Keppie 1996b: 81), and may relate to the field system clearly visible across the Castledykes area. It is assumed that a secondary use of the camp (IB) would have also utilised the north-eastern entrance, but there was no clear evidence of any recutting of the camp defences in the small area excavated (Keppie 1996b: 81).

Camp II lies to the north of the fort and also has two phases of occupation, with a reducing ditch on its west side. Another linear cropmark within the camp, east of centre, could indicate further phases of use. The camp was first recorded in 1952 by St Joseph from the air (1955: 85) with the secondary phases noted in the early 1960s (1965: 80). Phase one (camp IIA) measures 260m from north-west to south-east by 204m transversely, enclosing almost 5.2ha (13 acres). The reduced camp (IIB) probably measures 260m by 153m, enclosing almost 4ha (9.6 acres), but if the linear cropmark represents a further camp, then this could measure some 260m by 137m and enclose 3.5ha (8.6 acres). Entrances for the larger camp (IIA) are visible in its south-west and north-west sides, both protected

by *tituli*; that on the north-west lies in the centre of the reduced camp (IIB).

An extensive field system is visible in the vicinity, elements of which must be later than this camp, owing to the way that its defences are utilised by the fields (see above, section 7h).

Camp III lies within camp I with its perimeter intersecting a reducing ditch of camp IB, but the relationship between the two is unknown. First recorded in the mid 1950s by St Joseph from the air (1958: 89), it measures 122m from north-west to south-east by 81m transversely, enclosing almost 1ha (2.4 acres). No entrances are known.

Partially overlapping the eastern part of camp II, and possibly also the north-eastern corner of the fort, lies camp IV, the most recent discovery on the plateau (by RCAHMS in 1989; Frere 1990: 312). It is irregular in form, measuring about 440m from west to east by at least 320m, although its southern perimeter is unconfirmed. It therefore enclosed at least 14ha (35 acres). Keppie & Maxwell (1991) speculated that it could enclose in excess of 19ha (48 acres), but it seems likely on grounds of topography and its relationship to the fort location that it enclosed some 15.7ha (39 acres). An entrance gap is recorded in the north side where there is a change of alignment. Excavations on the ditch in 1991 recorded that it averaged 2.5m wide (Keppie & Maxwell 1991). The western side of the camp intersects camp II but their relative chronology is unknown.

Castledykes IA is usually interpreted as being the earliest feature on the site (St Joseph 1964: 257) owing to its Stracathro-type gates, but its relationship with camp III has not been determined. Keppie & Maxwell suggested that camp IV might be Flavian because of the potential overlap with the nearby fort (1991: 69); indeed, one of the ditches running eastwards from the north-east corner of the fort may be associated with this camp rather than one of the annexes. No dating evidence has yet been produced from any of the camps.

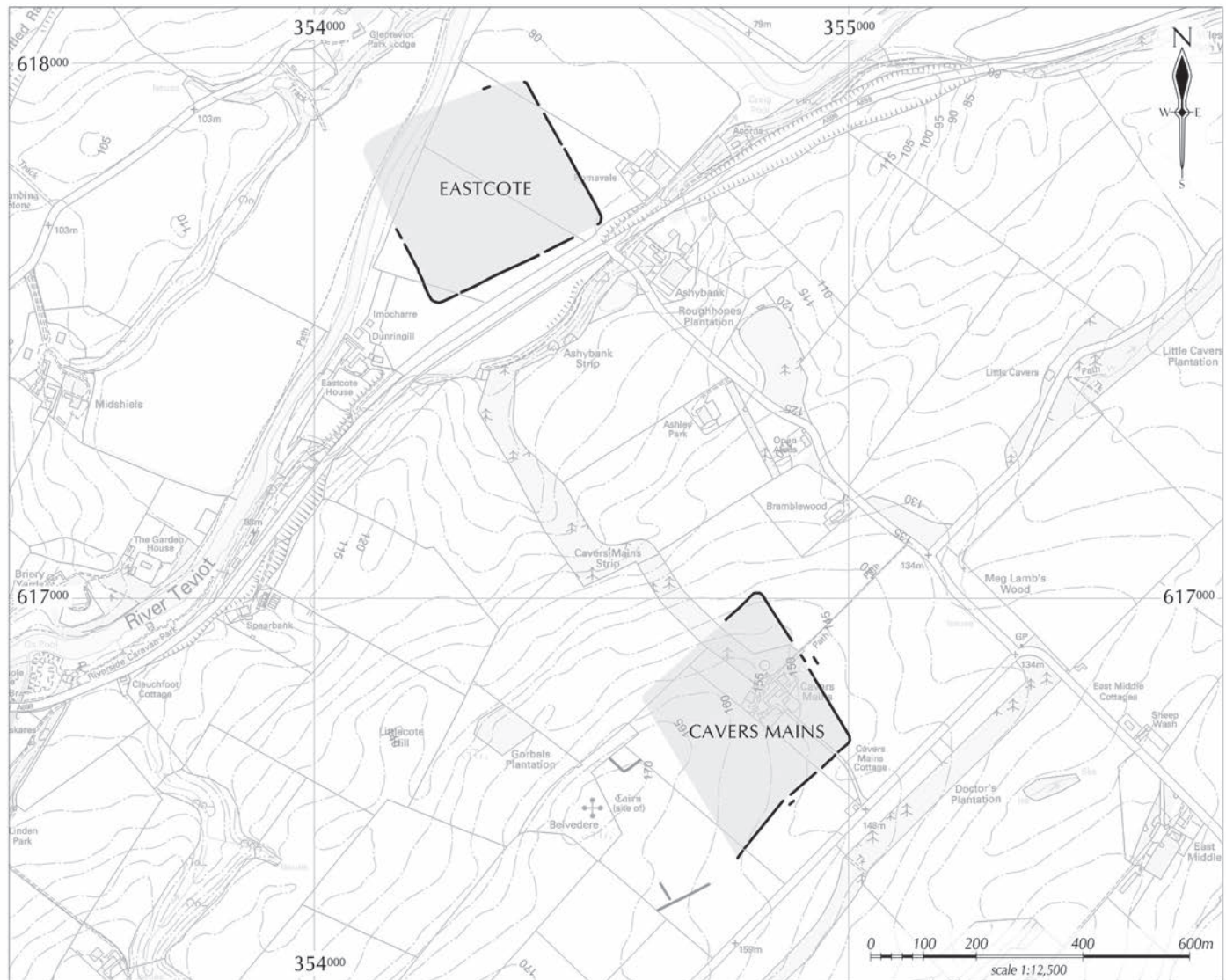


Illustration 102

Cavers Mains and Eastcote. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Cavers Mains (illus 47 & 102)

NT 5480 1675 NT 51 NW 25

First discovered from the air in 1962 by St Joseph (1965: 78), the camp at Cavers Mains lies on the eastern edge of a ridge above the River Teviot, just north-east of Hawick. The camp of **Eastcote** lies less than 1km to the north-west in a bend in the river. Parts of three sides of the camp are known through cropmarks, and it measures 328m from north-west to south-east by at least 321m transversely. Entrances protected by *tituli* are visible in the north-east and south-east sides. If that on the south-east side is close

to the centre of that side, the camp probably enclosed at least 11.5ha (28 acres).

St Joseph illustrated the possible south angle and south-west side of the camp (RCAHMS St Joseph Collection: DC 37307) but did not publish reference to additional sides being located. While some linear cropmarks are visible in this field, the south-west side of the camp could not be confirmed through air-photographic evidence.

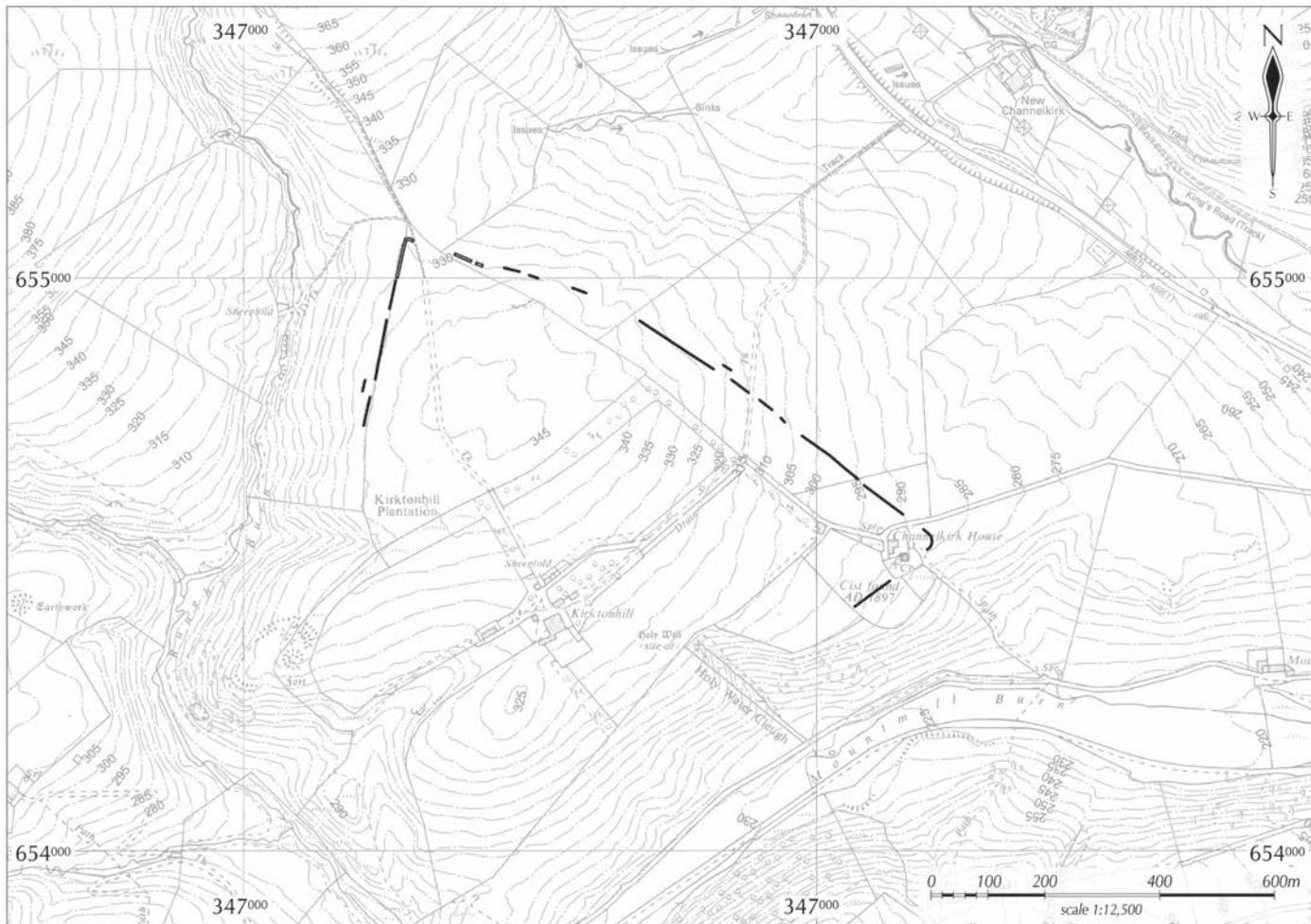


Illustration 103

Channelkirk. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Channelkirk (illus 47 & 103)

NT 4759 5460 NT 45 SE 2

The large Roman camp at Channelkirk was spotted by Sir John Clerk in 1724 (Keppie pers comm; in prep), and later also recorded by General Melville (1755) and subsequently planned by Roy in 1769 (Roy 1793: 61, Pl. VI; Macdonald 1917: 178–9). Further information was also provided by Chalmers (1807: i, 142). It lies on the line of Dere Street, with the fortlet and camps of **Oxton** a short distance to the east. Stretches of the camp's perimeter still survive as an earthwork, with a section of the western side surviving under a modern stone dyke. Parts of three sides have now been recorded as earthworks and cropmarks, suggesting that the camp was large but irregular in form. Its north-east side measures around 1058m and some 512m of its transverse dimension is known. Roy recorded that an additional line of earthwork connected the camp to a

'small post, or redoubt', now interpreted as an Iron Age fort, to the south on an extremely irregular route (1793: 61, Pl. VI). This line was excavated by Hewat-Craw, who noted that it ran in a straight line as shown by Roy, parallel to a plantation (1930: 324). However, he failed to give any dimensions that would confirm this feature as Roman, although he interpreted an earthwork across the fort as representing the Roman rampart constructed across the fort before turning to the east (1930: 324–5). There is no further information to support or deny this claim. The discovery of the east corner and a short stretch of the south-east side at Channelkirk Church confirmed the claim by Chalmers that the camp was now occupied by the 'church, churchyard and minister's glebe' (1807: i, 142). It also emphasised the large size of the camp, which enclosed

at least 47ha (117 acres), probably at least 55ha (136 acres) and is generally regarded to be closer to 66ha (165 acres), owing to its location and similarity with other camps on Dere Street (St Joseph 1969, 118; see also Chapter 9).

Entrances protected by *tituli* are visible on the WNW and NNE sides of the camp. That on the WNW side was excavated in 1921 by Hewat-Craw, and its ditch was just under 1m deep (1930: 324). Excavations on the

south-east side of the camp near the church revealed a ditch which measured some 2.6m wide and 1.4m deep (RCAHMS St Joseph Collection: Notebook 2). Other excavations on the north-east side in 1897 gave no dimensions (Allan 1900: 645). St Joseph reported excavating a line of cropmarks where the ditch was cut in rock, but it is unclear exactly where his excavations took place (St Joseph 1957: 13).

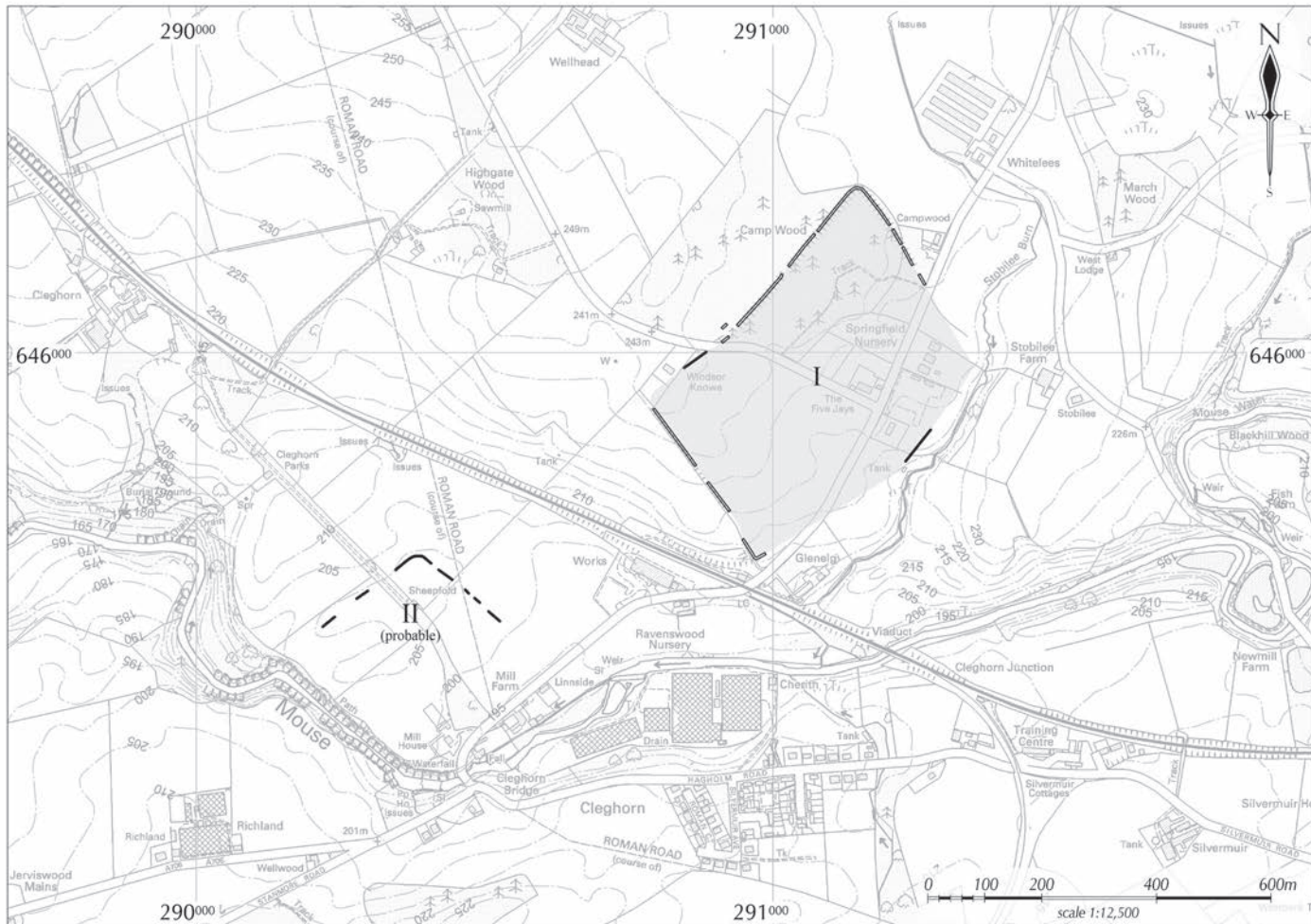


Illustration 104

Cleghorn I and probable camp Cleghorn II. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Cleghorn I (illus 47 & 104)

NS 9107 4596 NS 94 NW 2

The Roman camp at Cleghorn lies on a south-east facing slope on the north bank of the Mouse Water, close to the point where the Roman road is presumed to have crossed the river (at Cleghorn Bridge). The fort and camps at **Castledykes** lie 2km to the south-east. It was first recorded as an earthwork in 1764 by Roy (1793: Pl. IX) and stretches of three sides still survive in earthwork form.

The camp is parallelogram in form, measuring 509m from north-east to south-west by 389m transversely, enclosing 18.4ha (45.5 acres). Two *tituli* are still visible in Camp Wood on the north-west side, and Roy depicted a third on the north-east side. The upstanding rampart of the camp measures up to 0.7m in height and 4m in width, with an accompanying ditch up to 2m in width and 0.4m

in depth. Excavations in 1971 by RCAHMS recorded that the ditch was V-shaped, 2.9–3.2m in width and 0.75–0.9m in depth and was filled with natural silt (1971: 58–9). Later excavations (in 1977) by St Joseph recorded similar dimensions, with the ditch 3m in width and 1m in depth (RCAHMS St Joseph Collection: Notebook 7).

Seven Trajanic and Hadrianic coins were found at this camp after ploughing in 1986 (Bateson 1989: 167).

At Cleghorn Bridge, the presumed crossing by the Roman road, parts of a further probable camp have been identified (**Cleghorn II**), crossing the presumed line of the road (RCAHMS 1978a: 141–3). This may suggest a slightly different alignment for the road than has previously been assumed, or a significant timescale between the use of the camp and the use of the road.

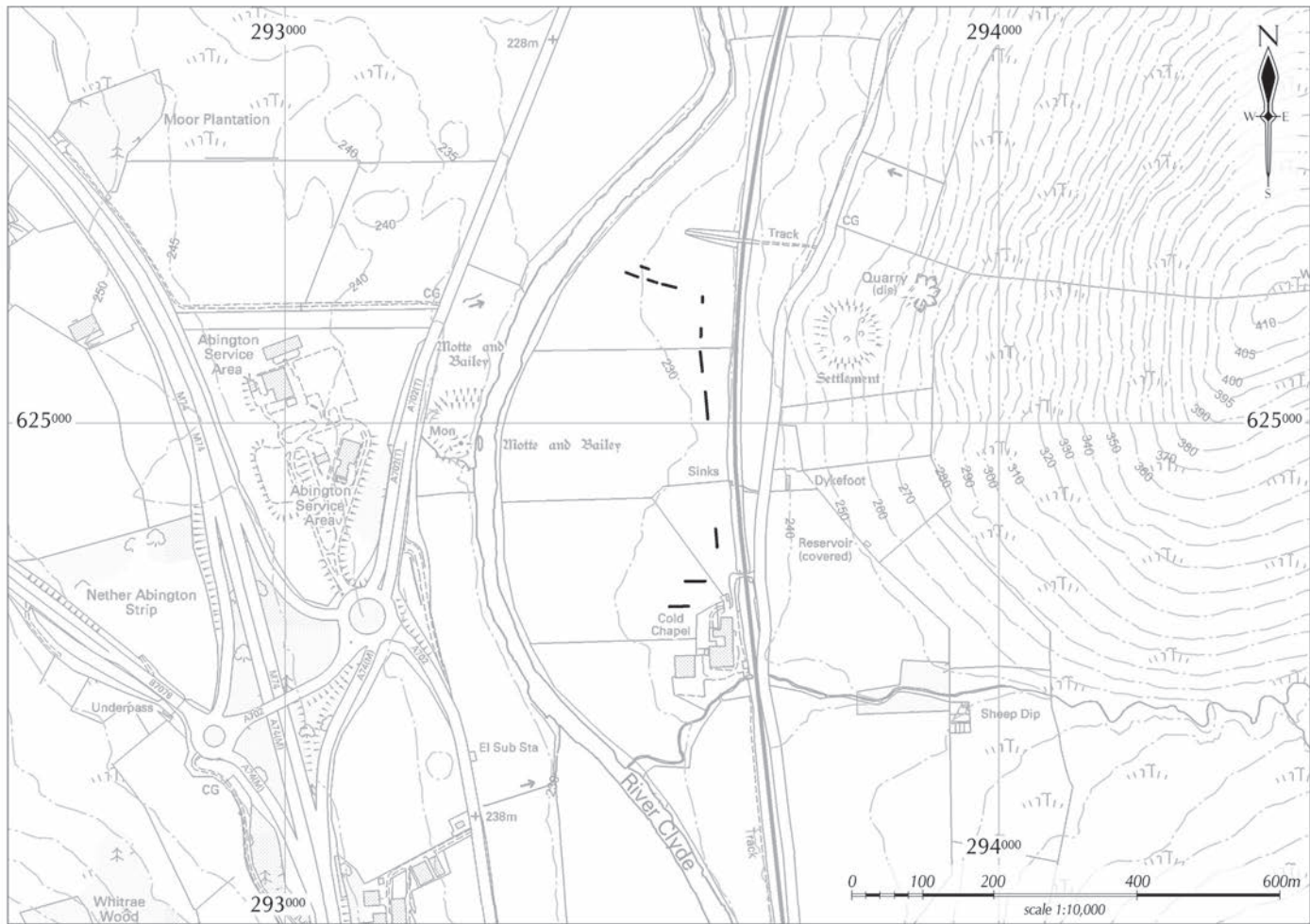


Illustration 105
Cold Chapel. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Cold Chapel (illus 105)

NS 9352 2490 NS 92 SW 38

Discovered in 1984 by RCAHMS from the air (Maxwell & Wilson 1987: 34), the camp at Cold Chapel lies on the east bank of the River Clyde, adjacent to the road which follows the presumed course of the Roman road connecting Annandale and the Upper Clyde Valley. Around 420m of the east side of the camp has been recorded together with at least 150m of the north side and a probable short stretch of the south side, although there are two possible cropmarks here; the north side

lies at an obtuse angle to the east side of the camp. An entrance gap protected by a *titulus* is visible in this northern side. If this *titulus* is central to this side, then it measures some 170m, which would take the camp right up to the modern course of the River Clyde. It would also enclose an overall area of up to 10.5ha (26 acres). There does not appear to be space for a 15ha camp as proposed by Maxwell & Wilson (1987: 34), unless the course of the Clyde has moved significantly.

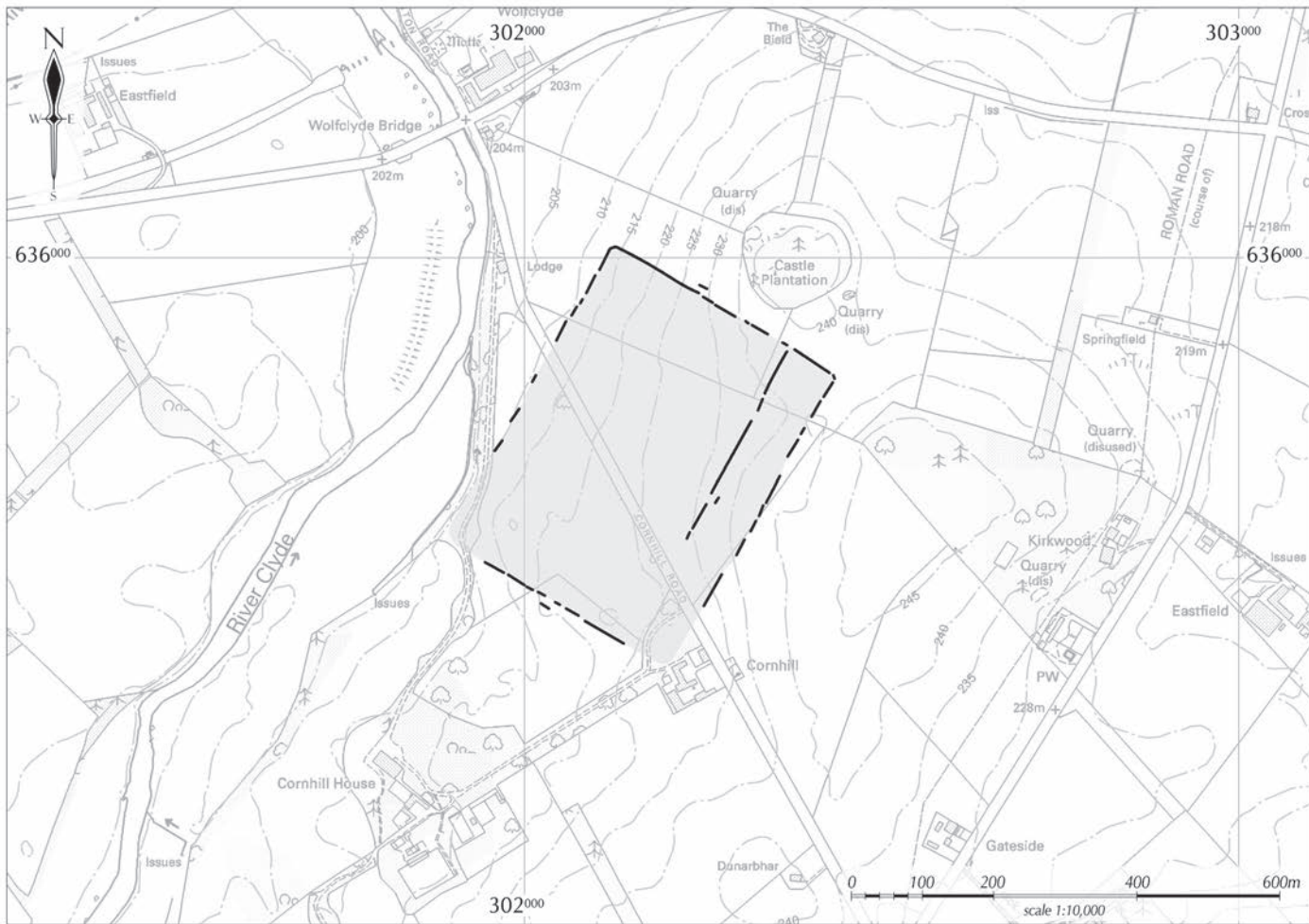


Illustration 106

Cornhill I–II. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Cornhill (illus 47 & 106)
(Coulter)

Cornhill I: NT 0215 3574 Cornhill II: NT 0215 3574
NT 03 NW 37 NT 03 NW 37

Sited on a west facing slope on the east bank of the River Clyde, the cropmark camps at Cornhill were first photographed in 1949 by St Joseph and fully recognised following further aerial survey in the 1970s (St Joseph 1976: 6–7; RCAHMS 1978a: 128). Camp I measures 474m from NNE to SSW by 365m and enclosed 17.1ha (just over 42 acres). Entrance gaps protected by *tituli* are visible in the NNE and SSW sides. The camp has

been reduced in a second phase of use, with the smaller camp measuring 474m from NNE to SSW by around 290m and enclosing 13.8ha (34 acres). An entrance gap with a *titulus* is visible in the reducing ESE earthwork, and it is likely that the camp shared the NNE and SSW entrance gaps with camp I, together with an, as yet unidentified, entrance gap in the WNW side of the camp.

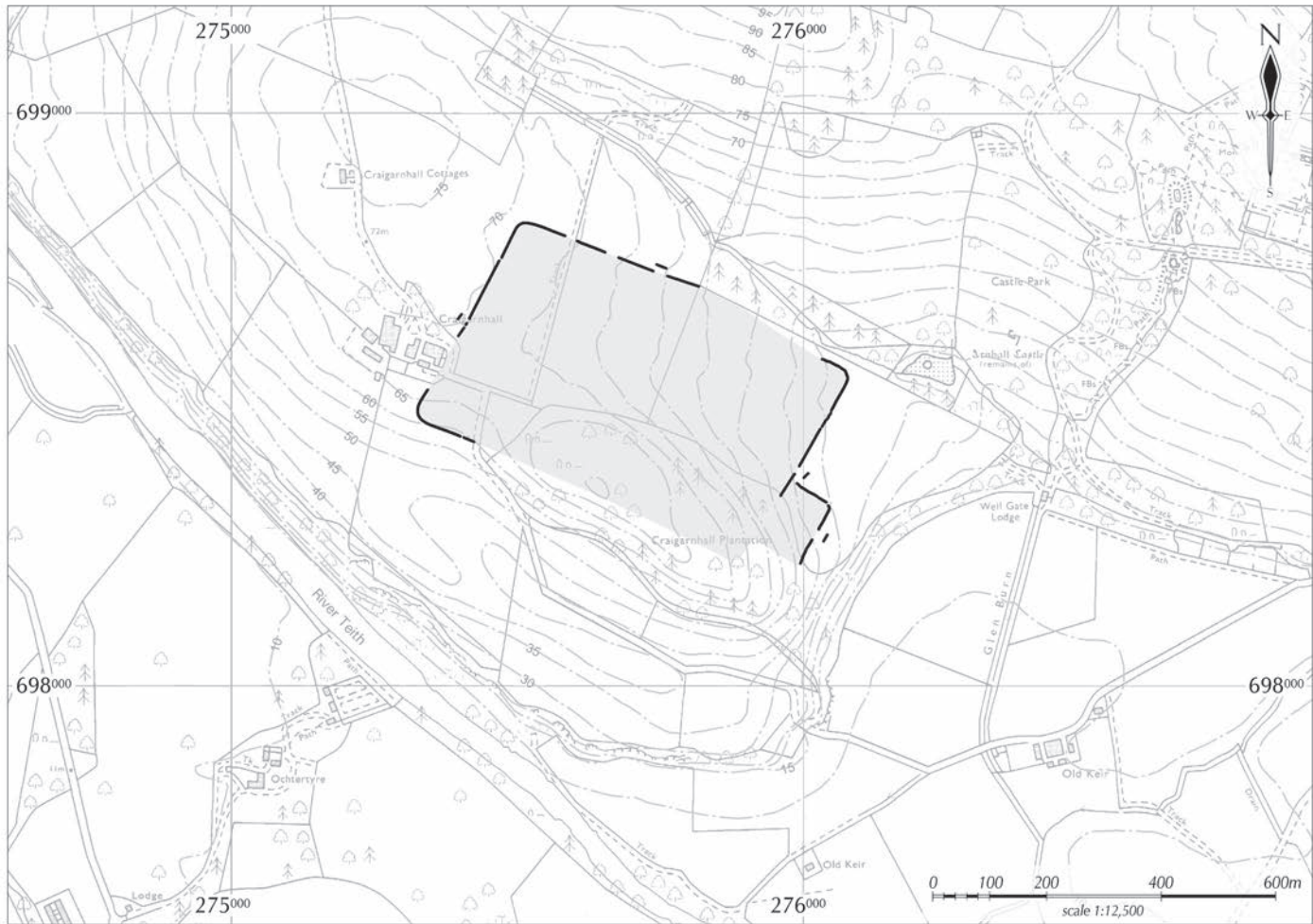


Illustration 107

Craigharnhall. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Craigharnhall (illus 47 & 107)

(Keir)

NS 7569 9852 NS 79 NE 20

Located on a north-east facing slope on the north side of the River Teith, the camp at Craigharnhall was first recorded in 1971 by St Joseph from the air (1973: 217–8). Parts of all four sides are visible through cropmarks and the camp measured about 630m from WNW to ESE by 395m transversely, enclosing almost 24.8ha (61 acres). Entrance gaps with *tituli* are visible in the centre of the WNW and ESE sides, and to the west of the centre of the NNE side. St Joseph placed numerous trenches through the camp in the 1970s, attempting to locate further stretches of ditch and recording wide variation in the ditch dimensions. On the WNW side the ditch was up to 3m in width and 1.5m in depth although at one point only measured 0.4m in depth. On the SSW side, where

it had been much ploughed away, the ditch was 1.8m in width and only 0.7m in depth. The western *titulus* ditch was 2.5m wide and 1.75m deep. In the ‘Icehouse Strip’ (which is not marked on any OS maps, but an Icehouse lies some way to the north-east of the camp) the ditch was relatively small, measuring only 1.7m in width and 0.8m in depth, but was cut into rock marl with a boulder in the east face of the ditch (RCAHMS St Joseph Collection: Notebooks 6 & 7).

There is a small annexe attached to the south part of the south-east side which measures 86m by at least 114m, thereby enclosing at least 1ha (2.5 acres). It has an entrance gap, possibly in the centre of its south-east side, protected by a *titulus*.

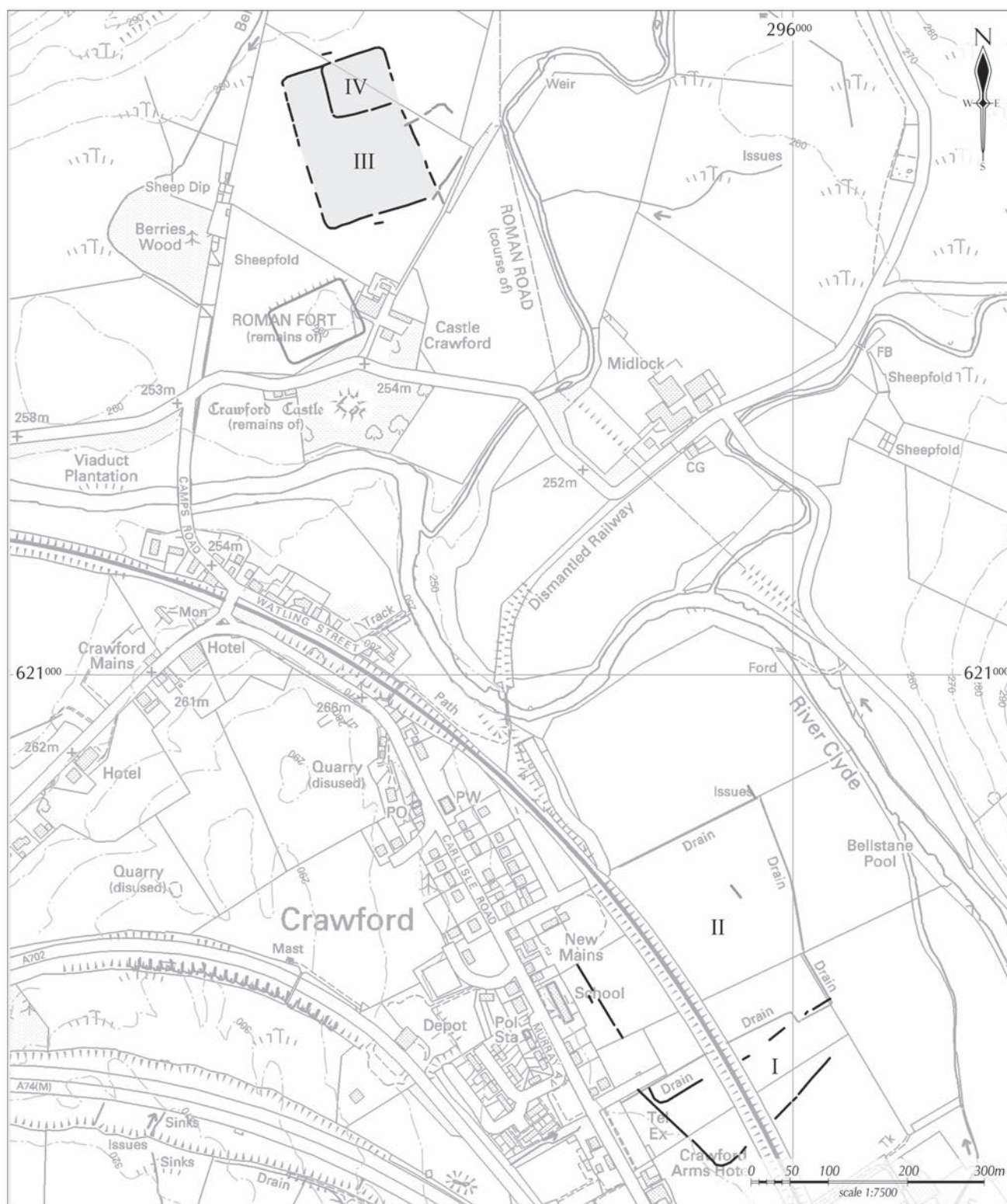


Illustration 108

Crawford I-IV and the Roman fort. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Crawford (illus 47, 72 & 108)

<i>Crawford I: NS 9592 2050</i>	<i>Crawford III: NS 9545 2170</i>
<i>NS 92 SE 14.0</i>	<i>NS 92 SE 17</i>
<i>Crawford II: NS 9584 2059</i>	<i>Crawford IV: NS 9545 2170</i>
<i>NS 92 SE 14.1</i>	<i>NS 92 SE 17</i>

Some four camps, all known from cropmarkings, lie within 1km of the Flavian and Antonine forts at Crawford, two partially overlapping one another in the village 1km to the south, and a third with a reduced phase (Crawford IV) less than 100m to the north of the fort.

Camps I and II lie on a terrace on the west bank of the River Clyde and were discovered in 1960 by St Joseph from the air (1961: 122). Some 200m of the south-east side of camp I has been recorded, together with the southern corner angle and 150m of the south-west side. A further linear cropmark lying in a field to the north of the known sectors may be part of the north-east side of this camp; this would give overall dimensions of 270m by at least 270m, enclosing at least 7.3ha (18 acres).

Just north of camp I, two stretches of a second camp have been recorded. This comprises about 260m of the SSE side together with the corner angle and 200m of the WSW side. A gate with a *titulus* is visible on the WSW side. If the *titulus* is in the centre of this side, then it would measure some 320m and the overall area enclosed could

be at least 8.3ha (20.5 acres), although there is space here for a camp of some 15ha (37 acres).

About 1km to the NNW of the camps, across the River Clyde and immediately north of the Roman fort on level ground lies a further camp with two phases of use. Recorded in 1977 and 1984 by Maxwell from the air (RCAHMS 1978a: 159; Maxwell & Wilson 1987: 40), camp III measures 200m from NNW to SSE by 143m transversely and encloses 2.85ha (7 acres). Gates with *tituli* are visible on the NNW and SSE sides. A further small camp (IV) is tucked into the north-east corner of this camp, sharing part of its NNW and ENE sides. This camp measures 84m from ENE to WSW by 73m and encloses 0.6ha (1.5 acres). The NNW entrance gap for camp III does not appear to have been closed, but this may be owing to the lack of clarity in the parchmark close to a field boundary. A linear cropmark on the east side of the camp may represent part of an irregular annexe (Maxwell & Wilson 1987: 40), although this seems unlikely.

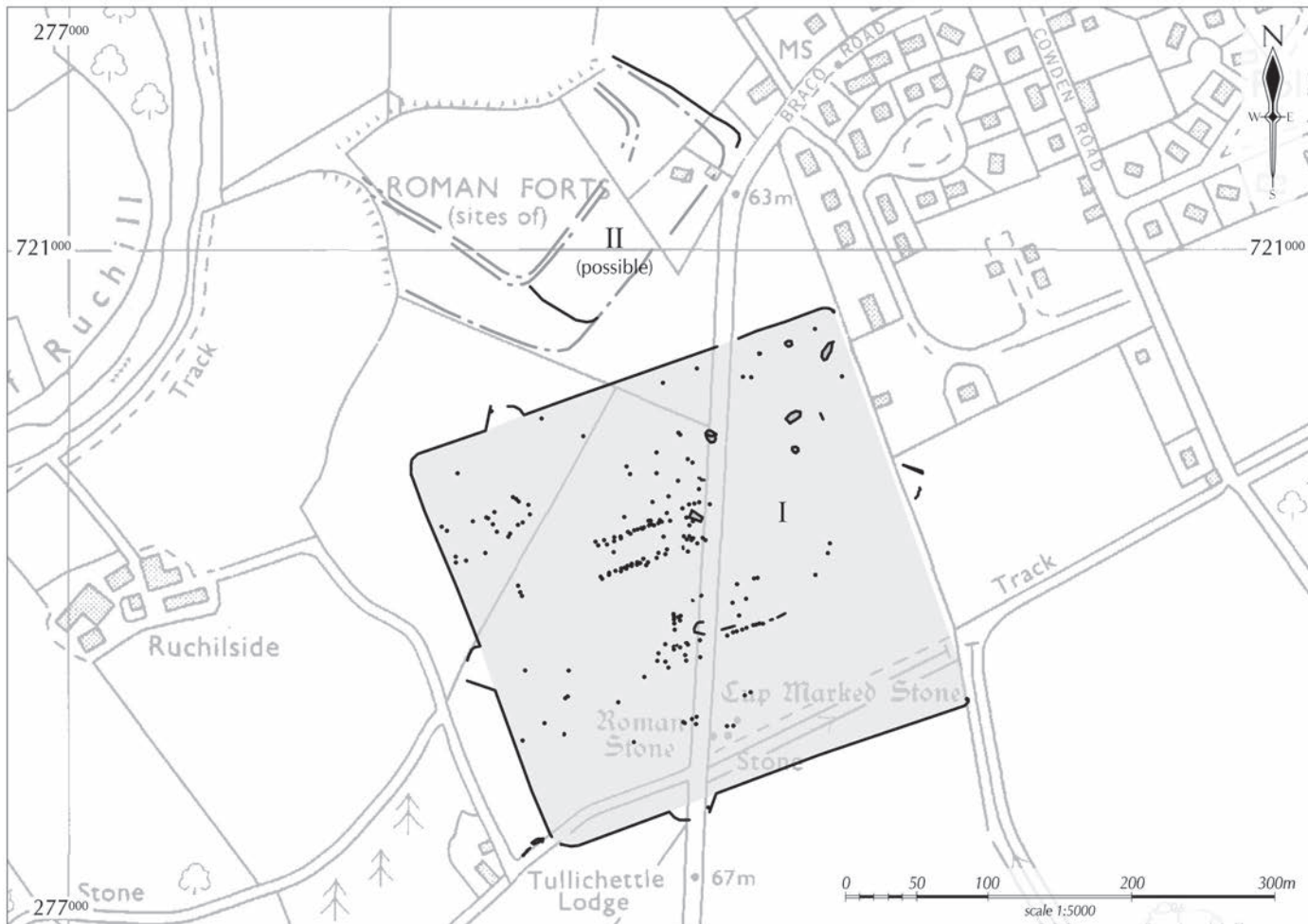


Illustration 109

Dalginross I and possible camp Dalginross II and the Roman fort and annexe. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Dalginross I (illus 13, 47, 53 & 109)

NN 7742 2078 NN 72 SE 1

The camp at Dalginross, lying on the plain to the south of the fort, was first recorded in 1755 by Roy (1793: 63–4, Pl. XI). He planned the camp as an earthwork, but it has since been ploughed and is only now known as a cropmark. It measures 318m from WSW to ENE by 293m, enclosing 9.2ha (almost 23 acres). Entrances are recorded on all four sides, all protected by Stracathro-type gates.

Excavations by St Joseph on the NNW side of the camp in 1966 recorded that the ditch was filled with silt and some large stones (RCAHMS St Joseph Collection: Notebook 4). Later excavations at the east *clavicula* recorded that the ditch was V-shaped with an ‘ankle-breaker’ and measured 1.9m in width and 1.8m in depth; it was recut to a shallower depth (1.7m wide and 0.8m deep). There

were traces of a rampart some 0.23m in height and 1.45m in width. The oblique traverse ditch was 2m wide and 0.75m deep and was recut with a U-shaped ditch, 2.55m wide and 0.9m deep (Rogers 1993: 277–86).

The excavations at the eastern gate suggested that the entrance ditches were backfilled with turves prior to recutting, signifying deliberate slighting on abandonment. There was an indeterminate period of time between the two phases of use. The excavations also recorded a single post-hole just inside the recut *clavicula*, which they suggested could have held a stake pushed into the bank (Rogers 1993: 286; see above, section 7a).

A series of pits is visible inside the camp. Some are larger pits which may represent quarrying activities, but

others run in rows within the camp and are reminiscent of the pits inside the camps at **Inchtuthil**.

Pennant noted a series of oblong hollows outside the north side of the camp, and excavations by the local schoolmaster revealed large quantities of wood-charcoal (1776: ii, 98). Crawford noted that these could be *lilia* rather than ovens because they were outside the camp (1949: 43), but ovens outside camps are not

unheard of (see **Carronbridge**, **Inchtuthil** and possibly **Drumlanrig II**).

There are numerous stray finds in the vicinity of the fort, including Antonine finds, and coins of Vespasian, Domitian and Alexander Severus (AD 222–35). A second possible camp (**Dalginross II**) lies in the annexe to the fort.

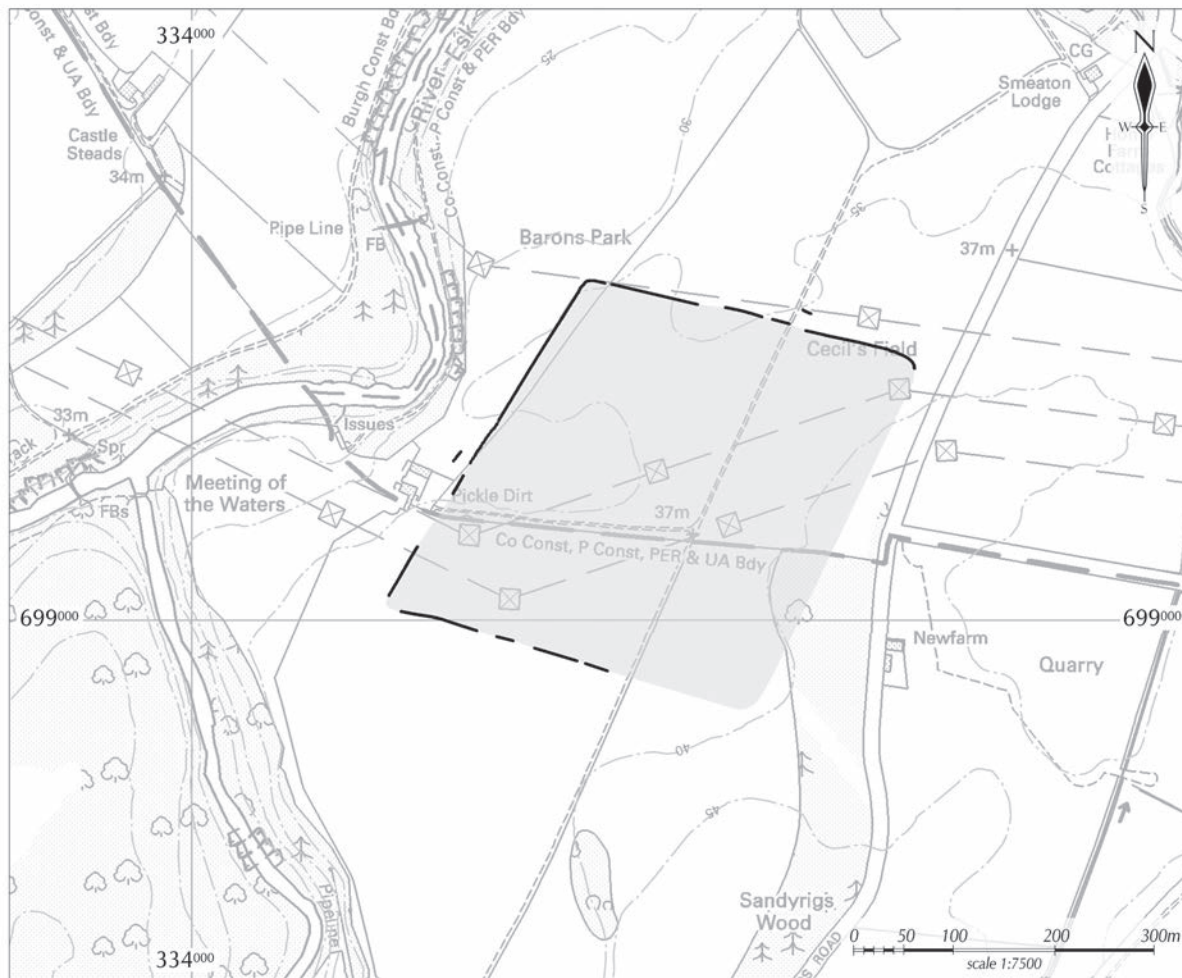


Illustration 110

Dalkeith. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Dalkeith (illus 47 & 110)

(Smeaton)

NT 3454 6916 NT 36 NW 33

First recorded in 1962 by St Joseph from the air (1965: 80), the camp at Dalkeith lies about 3km south of the fort and camps at **Inveresk** on fairly level ground east of the River Esk. Parts of three sides of the camp have been recorded through cropmarks, demonstrating that it was a parallelogram; a possible rounded corner at the eastern end of the NNE side may indicate the position of the fourth side. This suggests that it measures 385m from NNE to SSW by at least 340m transversely, enclosing a minimum of 13ha (33 acres). Entrance gaps protected by *tituli* are visible in the NNE and WNW sides. Various excavations of the camp in advance of the Dalkeith Northern Bypass have failed to locate its eastern side (Dunwell & Suddaby forthcoming), thus the

overall size of the camp remains unconfirmed, despite the identification of a ditch east of the road beside the camp; this was interpreted as probably of post-medieval origin. Elsewhere, the perimeter ditch on the WNW side measured up to 3.35m wide and up to 1.7m deep, with indications of a 'squared channel' at its base (Dunwell & Suddaby forthcoming).

Two possible field ovens were also identified during these excavations, one inside the camp, the second outside close to a further similar feature; these contained deposits of burnt cereal grain and charcoal; radiocarbon dating indicated a Roman date for the former and post-Roman dates for the latter. The presence of large quantities of cereal grain, primarily barley, was used to argue against the

oven having been used by the Roman military (Dunwell & Suddaby forthcoming), but the argument is weak given our lack of understanding of Roman ovens, particularly

from temporary camps. A piece of samian was found in the camp ditch. This was dated to the Antonine period, thereby giving a probable date for the occupation of the camp.

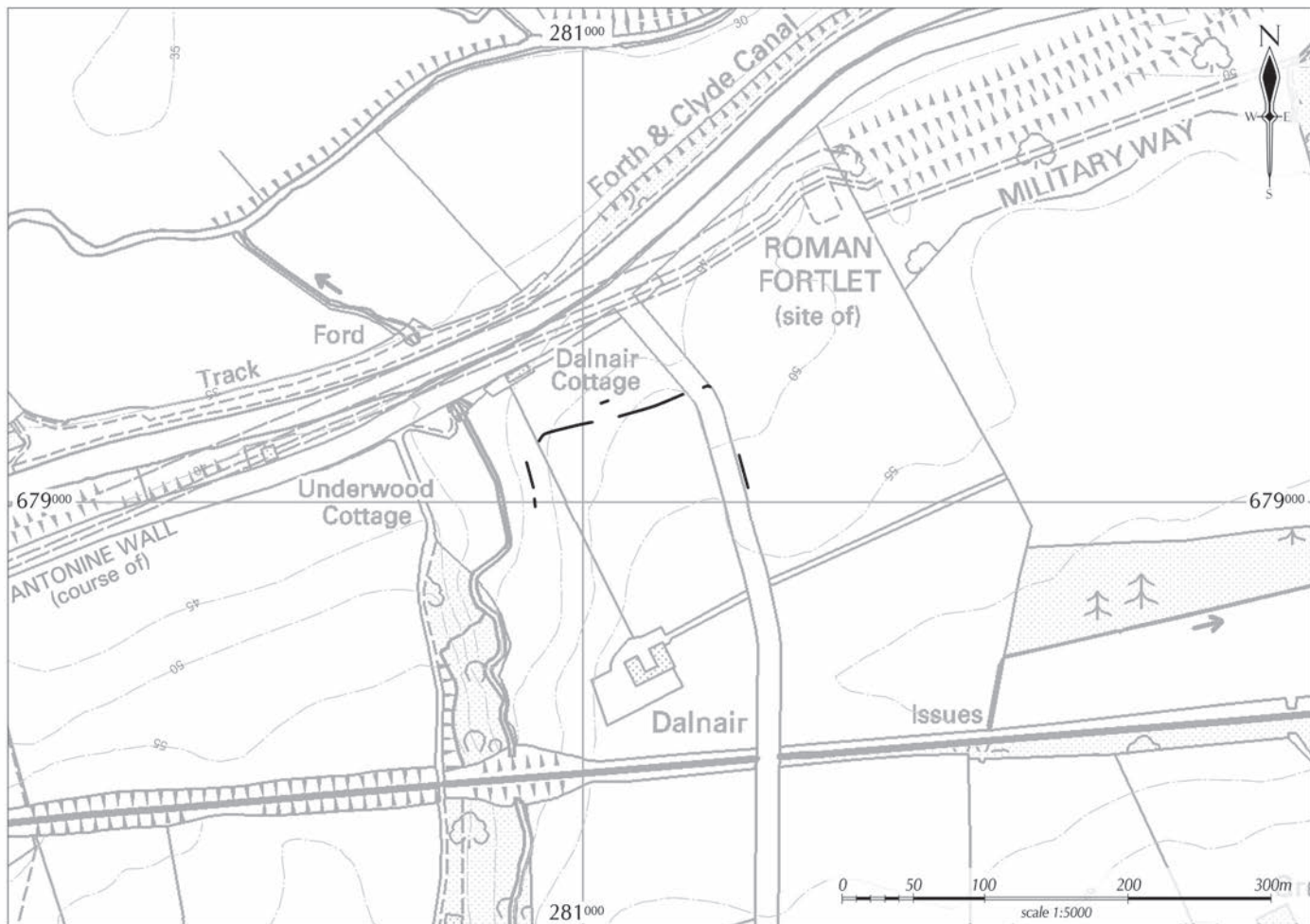


Illustration 111

Dalnair and the Antonine Wall. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Dalnair (illus 111)

NS 8104 7900 NS 87 NW 9

The camp near Dalnair farm was first recorded from the air by St Joseph in July 1957 (RCAHMS 1963: 107), lying less than 100m to the south of the Antonine Wall, some 200m south-west of the fortlet at Seabegs Wood. It is situated on ground that slopes gently down to the west to the Skipperton Burn, a tributary of the Bonny Water. The camp of **Milnquarter** lies some 1.5km to the east, and the fort of Castlecary just over 2km to the west.

The whole of the NNW side of the camp, about 145m,

has been recorded through cropmarks from the air, along with the rounded corner and a short length of the WSW side and the corner and up to 75m of the ENE side. No information on the likely position of the SSE side has been recorded, although if the camp has similar dimensions to nearby Milnquarter then part of this side could lie under Dalnair farmhouse. There is an entrance gap in the centre of the NNW side, protected by a *titulus*. The camp probably faced NNW, towards the line of the Wall.

GAZETTEER: KNOWN ROMAN CAMPS



Illustration 112

Dalswinton Bankfoot I-II, possible camp III, Ellisland I-II and the possible camp at Portrack House, also showing other cropmarks in the area including the Roman fort at Dalswinton Bankhead and the possible fort at Bankfoot. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Dalswinton (illus 47 & 112)

Dalswinton Bankfoot I: NX 9340 8400
NX 98 SW 12

Dalswinton Bankfoot II: NX 9365 8381
NX 98 SW 55

On the east side of the River Nith at Dalswinton a large number of cropmarks have been recorded: a Roman fort is known next to Bankhead farm and a second fort proposed on the floodplain below, at Bankfoot. The Bankhead fort, which is surrounded by annexes, was demonstrated on excavation to have been a two-phase Flavian fort (Richmond & St Joseph 1957). A nearby small enclosure at Butterhole Brae has also been proposed as a possible fortlet (St Joseph 1951a: 59). At Bankfoot, a further two-phased double-ditched site has been identified, and also proposed as being Flavian in date, possibly earlier than the Bankhead site (St Joseph 1973: 217). The possibility that there may have been four phases of Flavian occupation at this site means that it is critical for our understanding of the 1st-century conquest and occupation of south-west Scotland. However, geophysical survey in 2009 at the Bankfoot 'fort' failed to reveal any internal structures, suggesting that it may have been more temporary in nature (Hüssen *et al* 2009a). Until more work is undertaken, this site remains unclassified, but it may have only witnessed short-term occupation, despite having two ditches, which means that it is currently unlike any other identified temporary camp in Britain, with similar structures identified from air photographs often interpreted as 'vexillation fortresses'.

The site at Bankfoot appears to be almost entirely enclosed by camp I, although the south-western corner of both has been eroded by river movement. This camp,

first recorded in 1949 by St Joseph from the air (1951a: 59), measures about 540m from north-west to south-east by 468m, enclosing some 25ha (62 acres). A single entrance protected by Stracathro-type gates is visible in the south-east side; the entrance in the north-east side would lie under a railway embankment and part of the other two sides have been eroded through river action. Geophysical survey in 2009 revealed a line of pits, possibly ovens, running just inside to the north-west perimeter of the camp, and further anomalies scattered throughout its interior may represent further remains of ovens and pits (Hüssen *et al* 2009a; not depicted on illus 112).

Camp I intersects another camp exhibiting Stracathro-type gates. (This is the only known instance of two Stracathro-type camps overlapping, unless **Lochlands II** is a Stracathro-type camp). Also recorded in 1949, this camp is far smaller in size, measuring only 142m from WNW to ESE by at least 150m, enclosing at least 2.4ha (6 acres). A Stracathro-type gate is visible on its NNE side.

A possible third camp overlaps camp II, but only a single linear cropmark has been recorded, and no entrances are known. Across the Nith to the west, lie two small camps at **Ellisland**, one inside the other, with the east angle of camp I partly eroded by the river. Farther south-east, again on the west side of the Nith, another possible camp has been recorded at **Portrack House**, close to the point at which the railway line crosses the river.

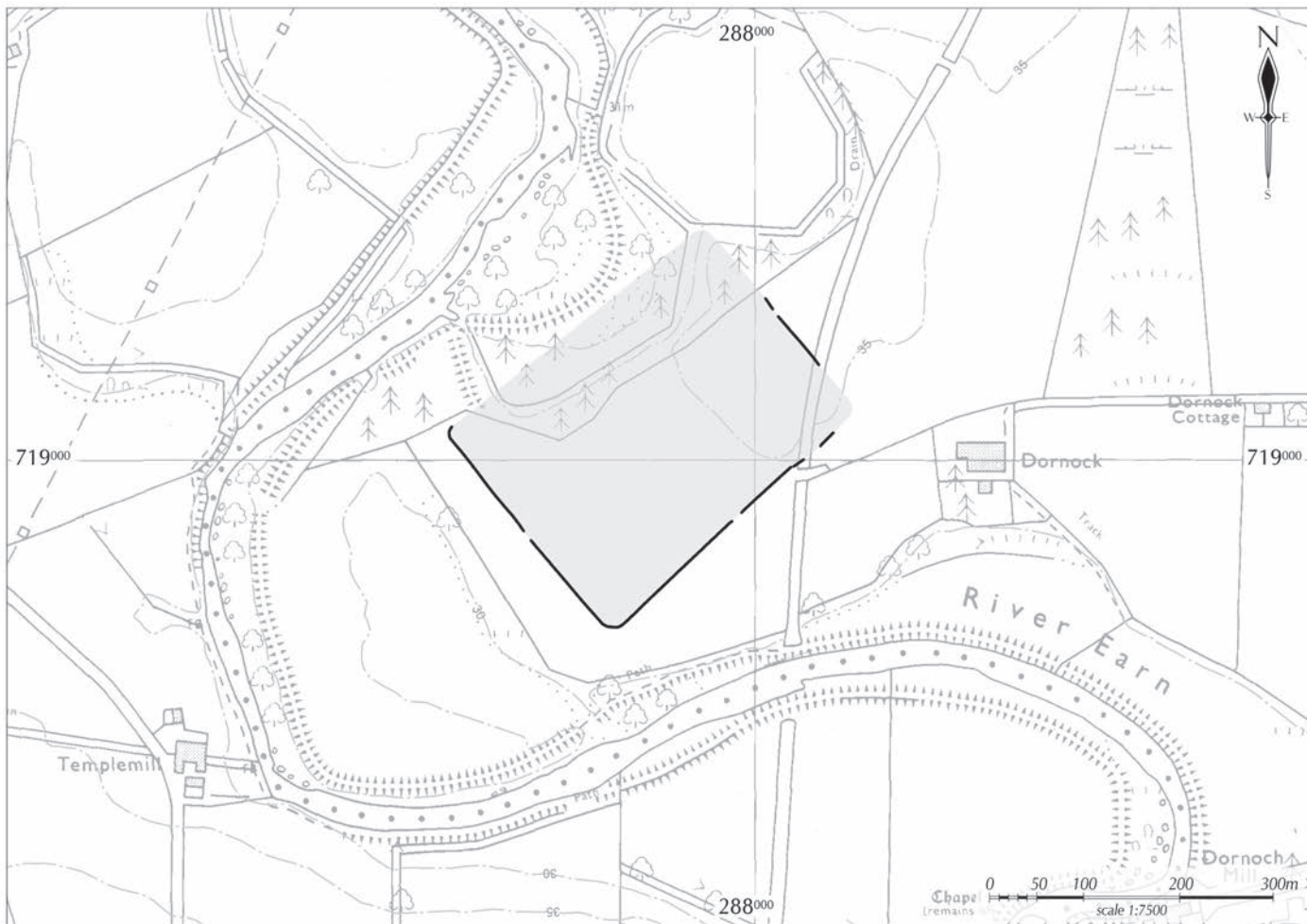


Illustration 113

Dornock. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Dornock (illus 47 & 113)

(Dornock Farm)

NN 8788 1895 NN 81 NE 14

This camp is situated some 2km north-west of the fort at Strageath, in a meander of the River Earn. First recorded in 1962 by St Joseph from the air as a cropmark (1965: 81), it sits on the axis of a ridge and measures 350m from north-east to south-west by about 274m transversely, although most of the north-west side and part of the north-

east have been removed by a steep scarp. The area enclosed is almost 9.5ha (23 acres). Entrance gaps are known in the south-east and south-west sides, with a possible further gap close to the centre of the north-east side. Excavations in 1962 recorded that the ditch was V-shaped, about 2.6m wide and 0.75m deep (St Joseph 1965: 81).

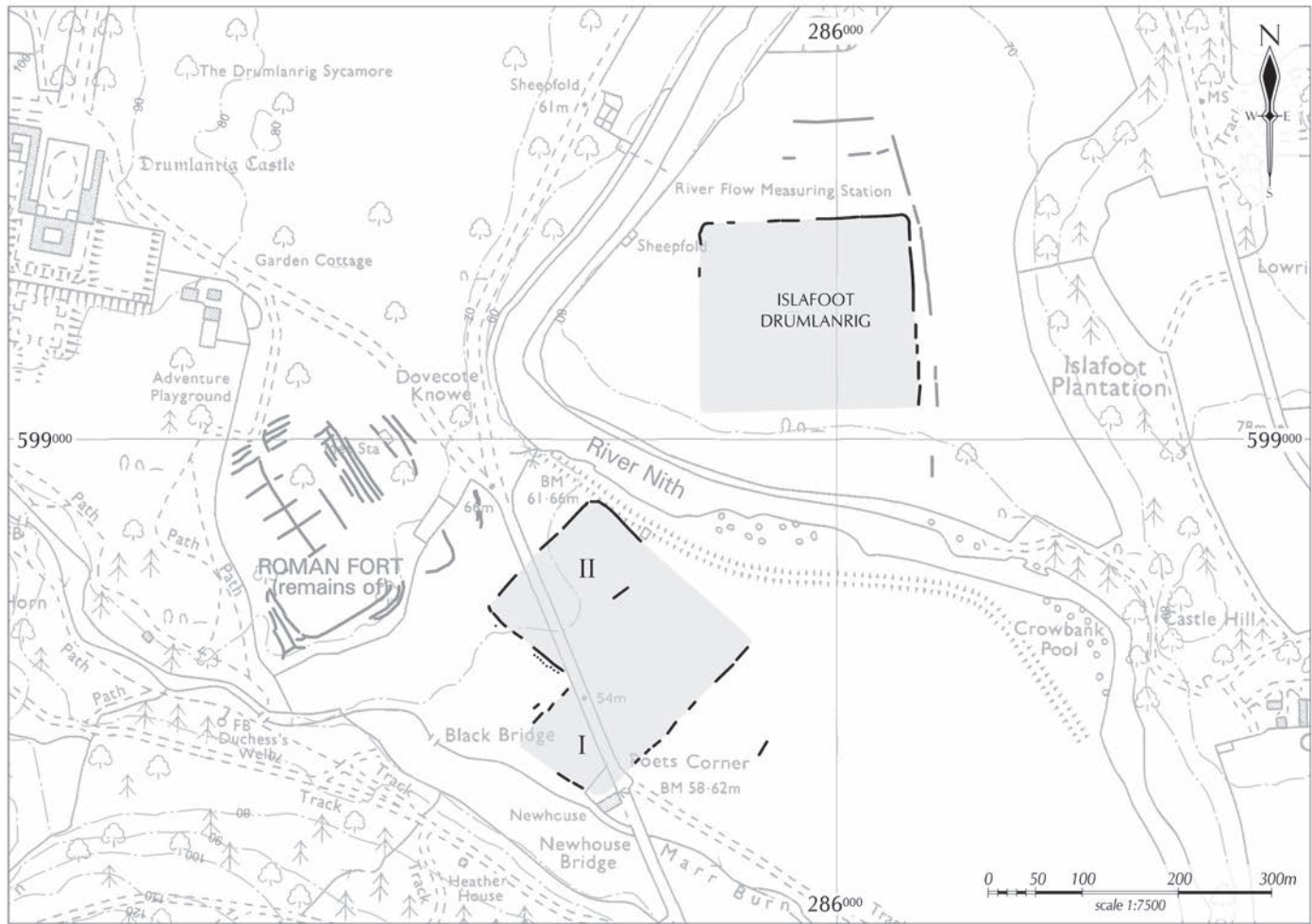


Illustration 114

Drumlanrig I-II and Islafoot Drumlanrig and the nearby Roman fort. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Drumlanrig (illus 47 & 114)

(Poets Corner)

Drumlanrig I: NX 8573 9867
NX 89 NE 62

Drumlanrig II: NX 8572 9884
NX 89 NE 66

Three camps are known close to Drumlanrig, on the River Nith, with two farther south on the east side of the river (**Carronbridge** and possibly **Waterside Mains**). Only parts of the two camps immediately south of the fort are known, with the camp at **Islafoot** lying across the river. The fort and camps I and II lie in the grounds of Drumlanrig Castle; because most of the area is in parkland, it is possible that more wait to be found. The fort is suspected to have Flavian origins (Maxwell & Wilson 1987: 19–20) and is known to have Antonine phases (Hunter 2005: 401–2; see above, Chapter 6).

Both the fort and camps were discovered in 1984 by RCAHMS as cropmarks from the air (Frere 1985a:

267). Camps I and II lie on a low terrace close to the river. Camp I measures about 105m from north-east to south-west by about 87m enclosing almost 1ha (2.4 acres). A *titulus* is visible in its north-west side. Camp II lies immediately west of this camp, and measures 229m by 159m, enclosing almost 3.5ha (8.6 acres). No entrances are known. The two camps may intersect one another, or camp I could represent an annexe to its larger neighbour.

A series of pits are visible running in a line parallel to and outside the south-west side of camp II. They have a slightly irregular appearance and may be the remains of ovens (see above, section 7f).

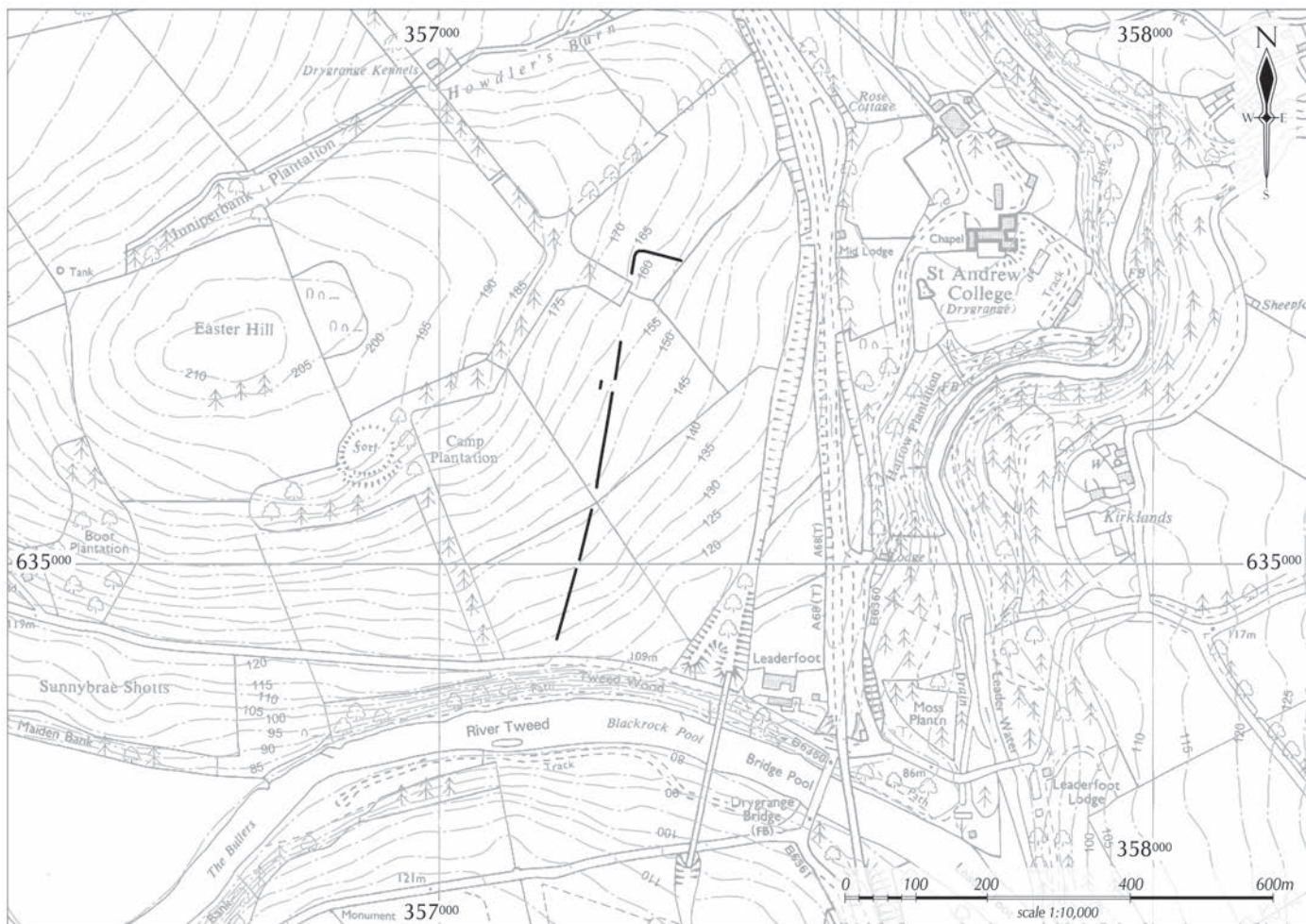


Illustration 115

Drygrange. The Roman complex at Newstead lies immediately to the south – see illustration 183. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Drygrange (illus 115)

(Newstead)

NT 5736 3520 NT 53 NE 33

First recorded in 1977 by Maxwell from the air (Maxwell & Wilson 1987: 37), the camp at Drygrange lies on the north side of the River Tweed, opposite the fort and camps at **Newstead**. Parts of two sides have been recorded as cropmarks, together with a rounded corner angle. Some 555m of the WNW side is visible, and it is unlikely to be much longer because beyond this point the ground drops away sharply to the river. Some 190m of the NNE side

is known. Maxwell & Wilson commented that its cross dimension could be more than 300m (1987: 37) and that there is room for at least 350m up to the Leader Water, although the ground drops away to east and south. If such an area is enclosed, then the camp could enclose as much as 19.6ha (48 acres). An entrance gap with *titulus* is visible on the WNW side.

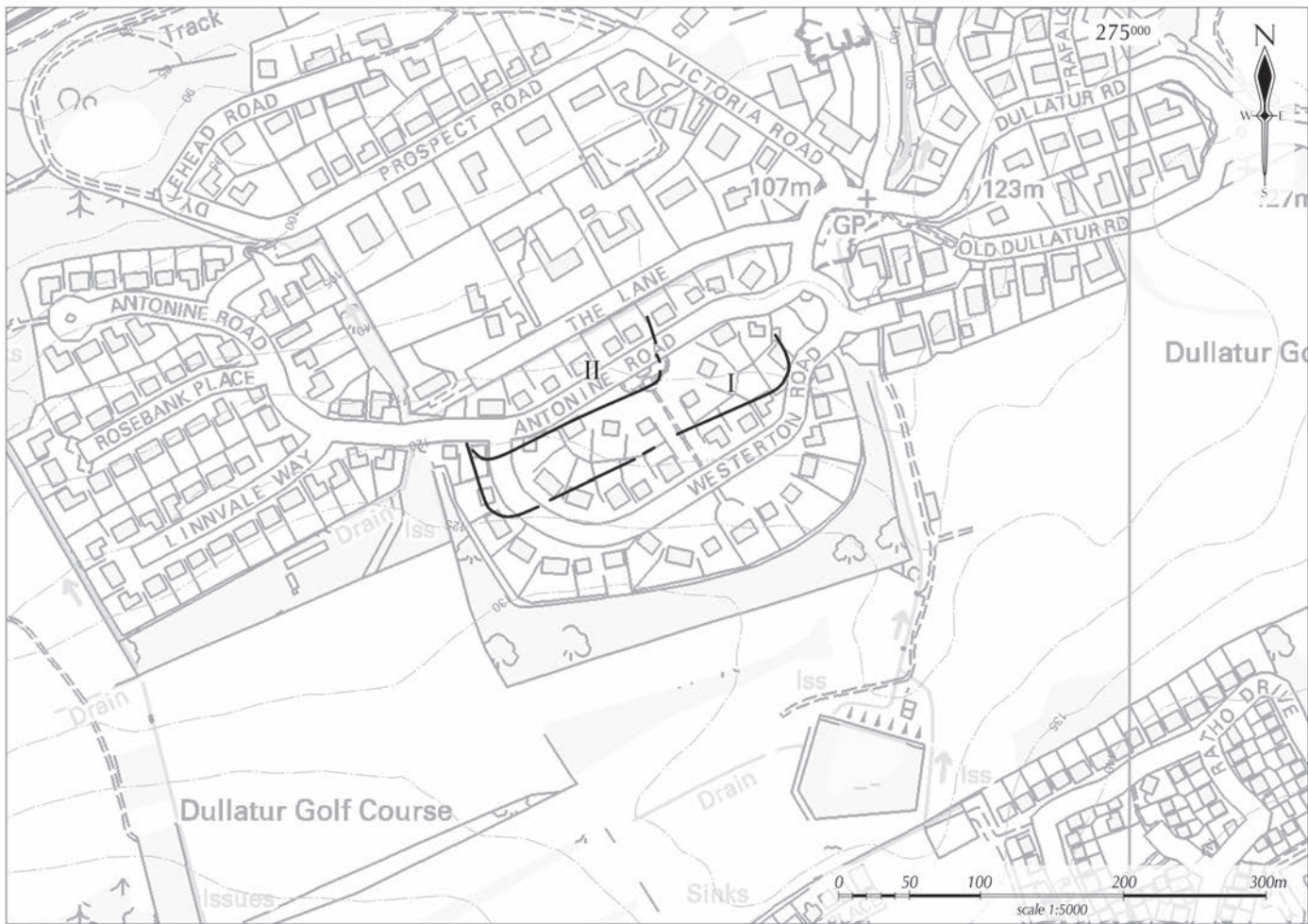


Illustration 116

Dullatur I-II. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Dullatur (illus 116)

Dullatur I: NS 7465 7670
NS 77 NW 22

Dullatur II: NS 7465 7670
NS 77 NW 22

The two Roman camps at Dullatur were first recorded from the air in 1961 as linear cropmarks by St Joseph, but it was several years later that the evidence was sufficient to classify the cropmarks as Roman (St Joseph 1969: 108–9). The camps lie on a north-facing slope, 400m south of the Antonine Wall, between Westerwood and Croy Hill. Only the south part of the two camps is known, with one inside the other, sharing part of the south-west side. The north part of the camps disappears under The Lane, a modern road.

The larger camp (I) measures about 230m along its south-east side, with over 60m of the north-east and south-west sides recorded. Of the inner camp, (II), its south-east

side measures some 146m, with 44m of its north-east side known.

The camps have been excavated on two occasions; in 1975–6 Keppie undertook trial excavations (Keppie 1978); and in 1998 a large area of the camp was excavated prior to the site being developed as a housing estate (Lowe & Moloney 2000). The 1975–6 trial excavations determined the relationship between the two camps. The smaller, inner camp (II) reuses the south-west perimeter of the outer. Keppie suggested that the area of the camps was 4ha and 1.7ha. The 1998 excavations uncovered the known perimeter of the camps, confirming their relationship, but, significantly, the entrance on the north-

east side, recorded by Keppie (1978: 9), could not be confirmed because the ditch continued unbroken. The entrance on the south-east side was reconfirmed east of the centre, and measured 6.5m in width; no traverse was located.

The ditch of the outer camp was V-shaped and measured up to 2m wide and up to 1m deep, with an 'ankle-breaker' slot, 0.3m wide, sometimes recorded at its base (Lowe & Moloney 2000). The inner camp was of similar dimensions, but its profile was more rounded and U-shaped.

Roman pottery was found in the ditch of camp I and dated to the late Hadrianic–early Antonine period, therefore suggesting that the camp dated to the time of the Antonine conquest and construction of the Wall (Swan 2000). In addition, there were two well-defined turf stabilisation horizons in some areas, suggesting fairly rapid silt formation. The outer camp appeared to have silted up to a natural point of rest before the defences of the inner camp were recut. The presence of the two turf horizons in other sectors of the camp could suggest that the minimum time lapse between the construction of the second camp after the first was abandoned could have been as little as two years. However, this argument rests on the assumption that the south-east and south-

west sectors silted up at the same rate (Lowe & Moloney 2000: 248).

The failure to relocate Keppie's north-east entrance in the later excavations led to the suggestion that it may be represented by the line of the modern road, The Lane, because this changes direction at the point at which it enters the camp from the east. This suggestion could mean that The Lane represents the centre point on this side, as the entrance gap on the south-east side was slightly towards the north-east side, and possibly, therefore, a side gate. This would mean an increase in the size proposed for the camp, now measuring about 230m from north-east to south-west by up to 200m transversely, enclosing an area of up to 4.3ha (10.6 acres) (slightly more than the 4.2ha suggested in 2000 (Lowe & Moloney 2000: 249)).

The dimensions of the inner camp are less easy to determine because, while it utilises the south-west side of the larger camp, it need not necessarily utilise its north-west side (for example, **Hillside Dunblane** – *illus 143*). However, if the location of the north-west side of the outer camp is correct, and if the inner camp did reuse it, the camp would be almost square in shape, measuring about 146m from north-east to south-west by up to 150m, enclosing a maximum area of 2.18ha (5.4 acres).

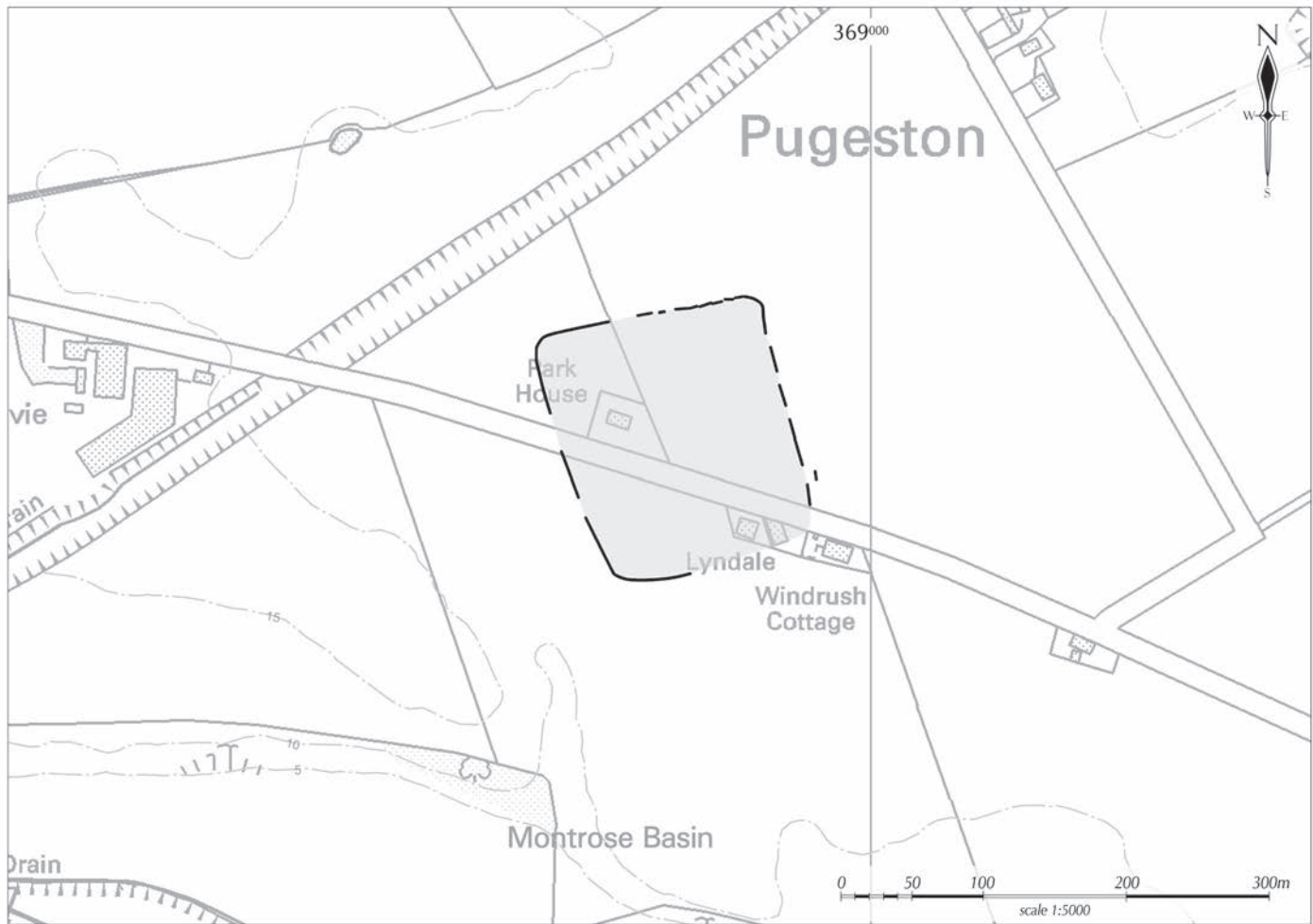


Illustration 117

Dun. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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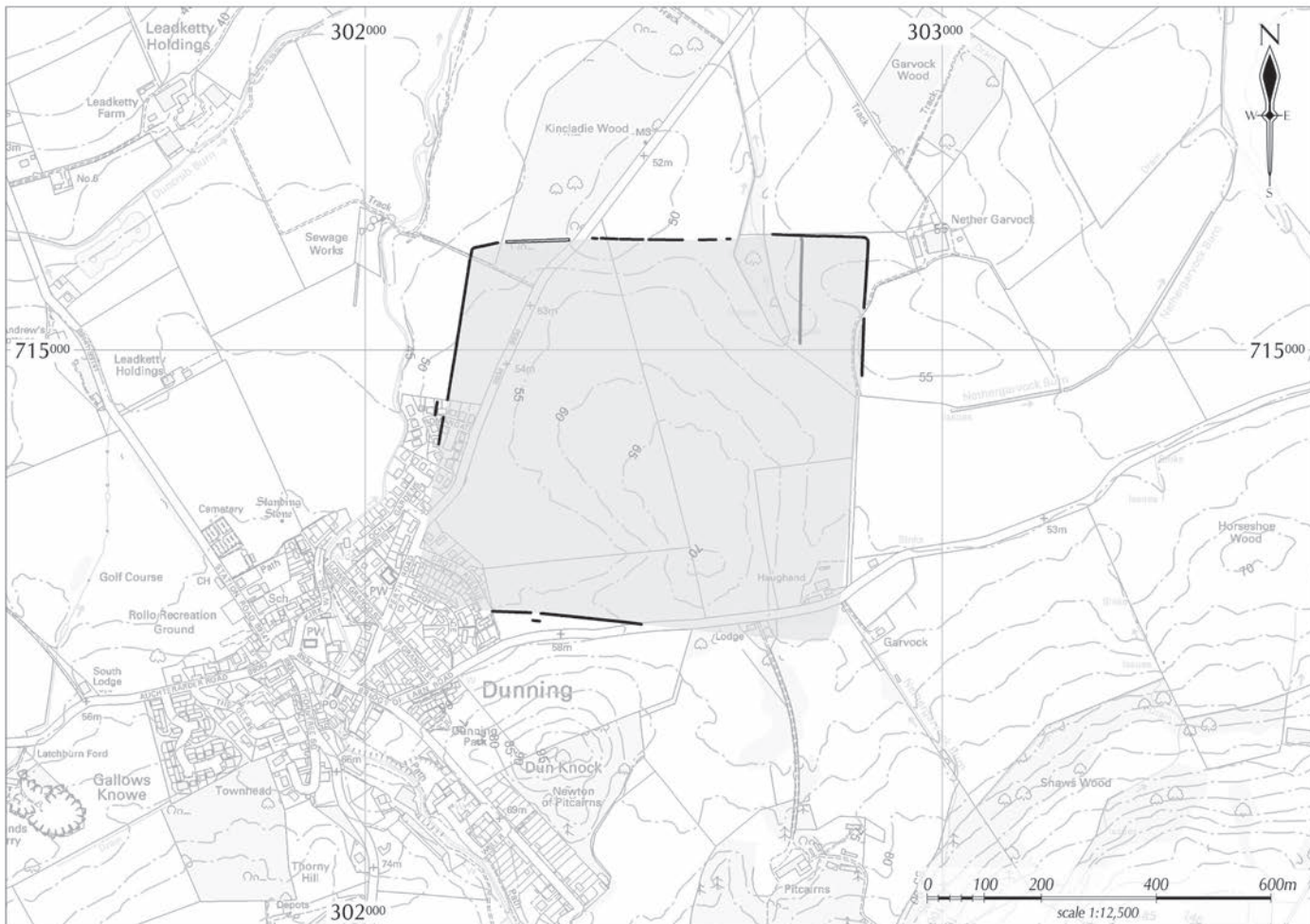
Dun (illus 47 & 117)

NO 6890 5959 NO 65 NE 21

This camp, situated on level ground on the north side of the Montrose Basin, was first discovered by St Joseph from the air through cropmarks in 1970 (1973: 225). It measures about 185m from NNW to SSE by around 160m transversely, enclosing 2.8ha (7 acres). An entrance gap protected by a *titulus* is visible towards the south end of the ENE side, and there is a corresponding break in the opposite side.

St Joseph placed trenches on the SSE and WSW

sides in 1970, recording that the ditch was 2.3m wide and 1.2m deep. A small piece of samian recovered from these excavations was dated to AD 70–90 (1973: 225). Further excavations were made by Rogers in 1990, in advance of the replacement of a gas main alongside the road. These recorded that the ditch was V-shaped, and measured up to 1.5m wide and about 1m deep. The excavators noted that the ditch had silted rapidly (Rogers 1993: 287–8).

*Illustration 118*

Dunning. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Dunning (illus 47 & 118)
(Kincladie Wood; Duncrub)

NO 0249 1500 NO 01 NW 7

Macfarlane noted a 'trench capable to contain several thousands of men' just to the north-east of Dunning, which he presumed to relate to the battles in the 14th century (1726, in Mitchell 1906: 121). This was noted by Crawford, who, following Macfarlane's reference, also recorded a small stretch of upstanding bank and ditch in Kincladie Wood, commenting that it could be a fragment of a Roman camp (1949: 59). Feachem and officers of the OS archaeology division re-examined the site in 1970, and suggested that the remaining stretch in the wood was the remains of the north side of a camp of Stracathro-type (Wilson 1970: 274).

Parts of four sides of the camp were subsequently recorded as cropmarks from the air, with further information recorded through excavation (St Joseph 1973: 218–19). It lies on undulating ground immediately north-east of the village of Dunning, with housing covering the south-west angle and parts of the west side. The Dunning Burn, a tributary of the River Earn, lies immediately to the west. The camp is rhomboidal in form, measuring about 705m from west to east by 660m transversely, enclosing some 47.3ha (117 acres). The surviving stretch of rampart in Kincladie Wood on the north side of the camp is about 120m in length, and about 3m in width and up to 0.6m

in height; its accompanying ditch is about 3.4m in width and 0.3m in depth.

An additional linear cropmark is visible in the north-east corner of the camp and may also be Roman, potentially representing a reduction in the length of the camp to some 565m, reducing the overall area to about 39ha (95 acres). This may be the same linear cropmark noted by St Joseph (Dunwell & Keppie 1995: 61n).

An entrance gap protected by a *titulus* has been recorded, and excavated, in the centre of the west side, and a further *titulus* is visible in the western portion of the south side. In addition, a *titulus* has also been recorded in the west part of the north side in Kincladie Wood (RCAHMS St Joseph Collection: Notebook 6; not depicted on ill. 118).

The camp has been subject to excavations on several occasions, with St Joseph recording, in the 1970s, that the ditch measured about 2.7m in width and 1m in depth on the west side and up to 1.5m in depth on the north and east. The north *titulus* ditch was up to 0.6m in depth (RCAHMS St Joseph Collection: Notebooks 5 & 6).

Further excavations just east of the north entrance recorded a U-shaped shallow ditch, some 3m wide and 0.75m deep, that had possibly been narrowed and reused

(Dunwell & Keppie 1995: 53). Subsequent excavations at the western entrance also suggested recutting at the main camp ditch termini, although not of the *titulus* ditch. There was a further break in the ditch *c.* 11.75m north of the gate. The *titulus* ditch (some 14.5m in length) was up to 3.3m in width and 1.6m in depth. Eleven sherds from a BB2 bowl, probably dating to the Antonine period, were recovered from the fill of this ditch (Dunwell & Keppie 1995).

Dunning lies close to the place named 'Duncrub', which Watson first linked with Mons Graupius (1926: 56). Feachem took this reference further, proposing the area as the site of the battle, and publishing an inaccurate plan of the site, complete with Stracathro-type gateways (1970). This argument has recently been supported by Fraser, who unfortunately fails to correct the assertion that the camp had Stracathro-type gateways and also stated that it faced the Cairnie Braes to the north (2005: 72–6) ignoring the evidence for the traverse gateways and the likelihood that the camp probably faced east or west (the latter towards Duncrub). The evidence that Fraser advances is insufficient to assert that the site related to the battle with any confidence. (For further discussion of postulated sites for Mons Graupius, see Chapter 3.)

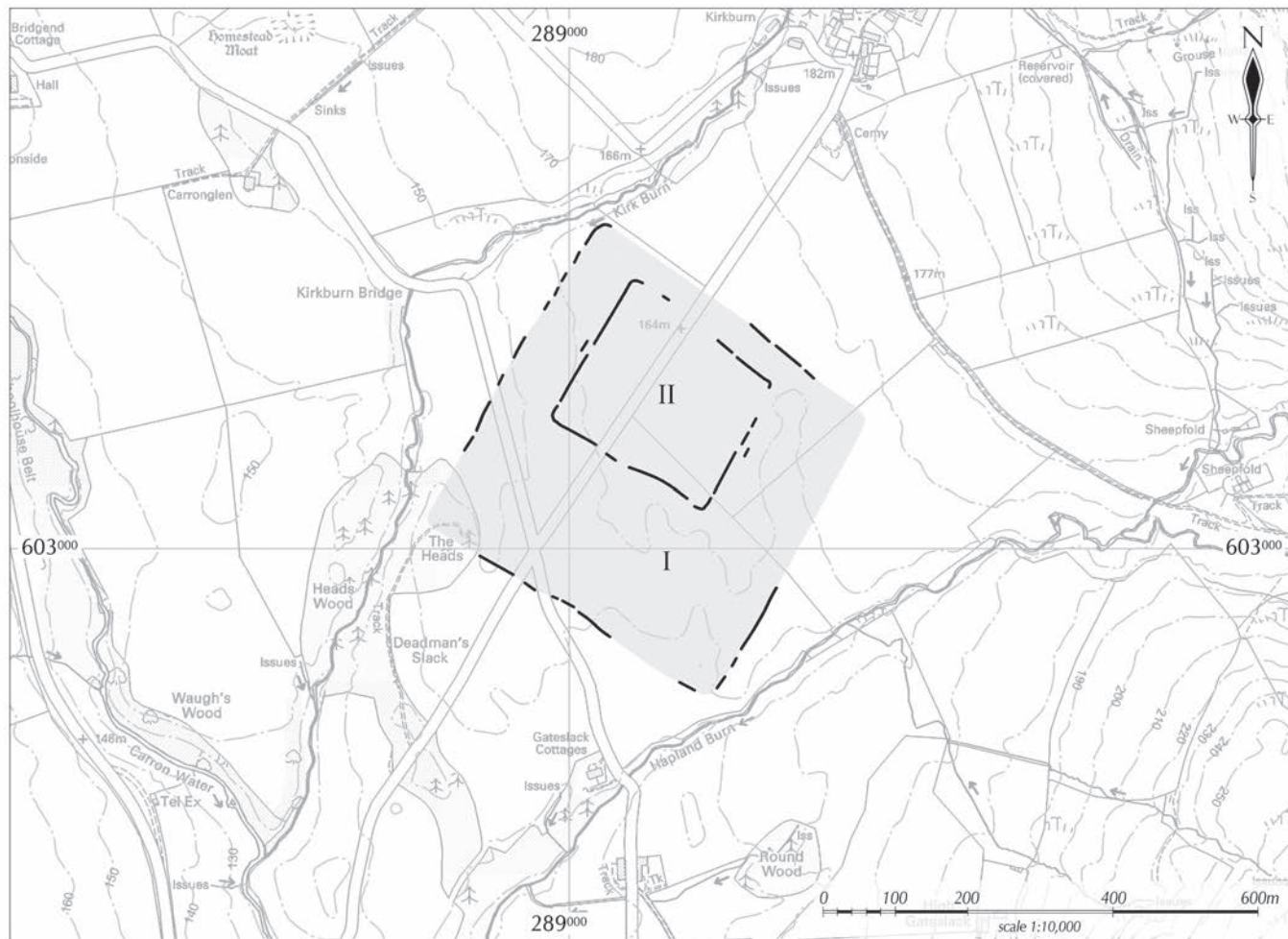


Illustration 119

Durisdeer I-II. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
Ordnance Survey Licence number 100020548.

Durisdeer (illus 47 & 119)

Durisdeer I: NS 8917 0314
NS 80 SE 8

Durisdeer II: NS 8917 0314
NS 80 SE 8

Discovered in 1949 by St Joseph from the air, the two camps at Durisdeer lie in pasture fields on a south-west-facing slope on the south-west side of the Lowther Hills, on the Roman road running from **Drumlanrig** in Nithsdale towards **Crawford** in Annandale. An Antonine fortlet lies some 2km up the Roman road to the north-east. Camp II is wholly enclosed within camp I, and the modern road on the presumed line of the Roman road runs through both.

Camp I is almost square in form, measuring 474m from south-west to north-east by 460m enclosing 21.7ha

(53.7 acres). No entrances are known, but the cropmarks of the perimeter ditch are patchy because the camp has been recorded only in pasture.

Camp II measures 246m from north-west to south-east by about 210m transversely, although the north-west end is wider than that to the south-east. Some 5.1ha (12.7 acres) are enclosed, and entrance gaps protected by *tituli* are visible in the centre of north-west and south-east sides. A further entrance gap is visible in the centre of the south-west side.

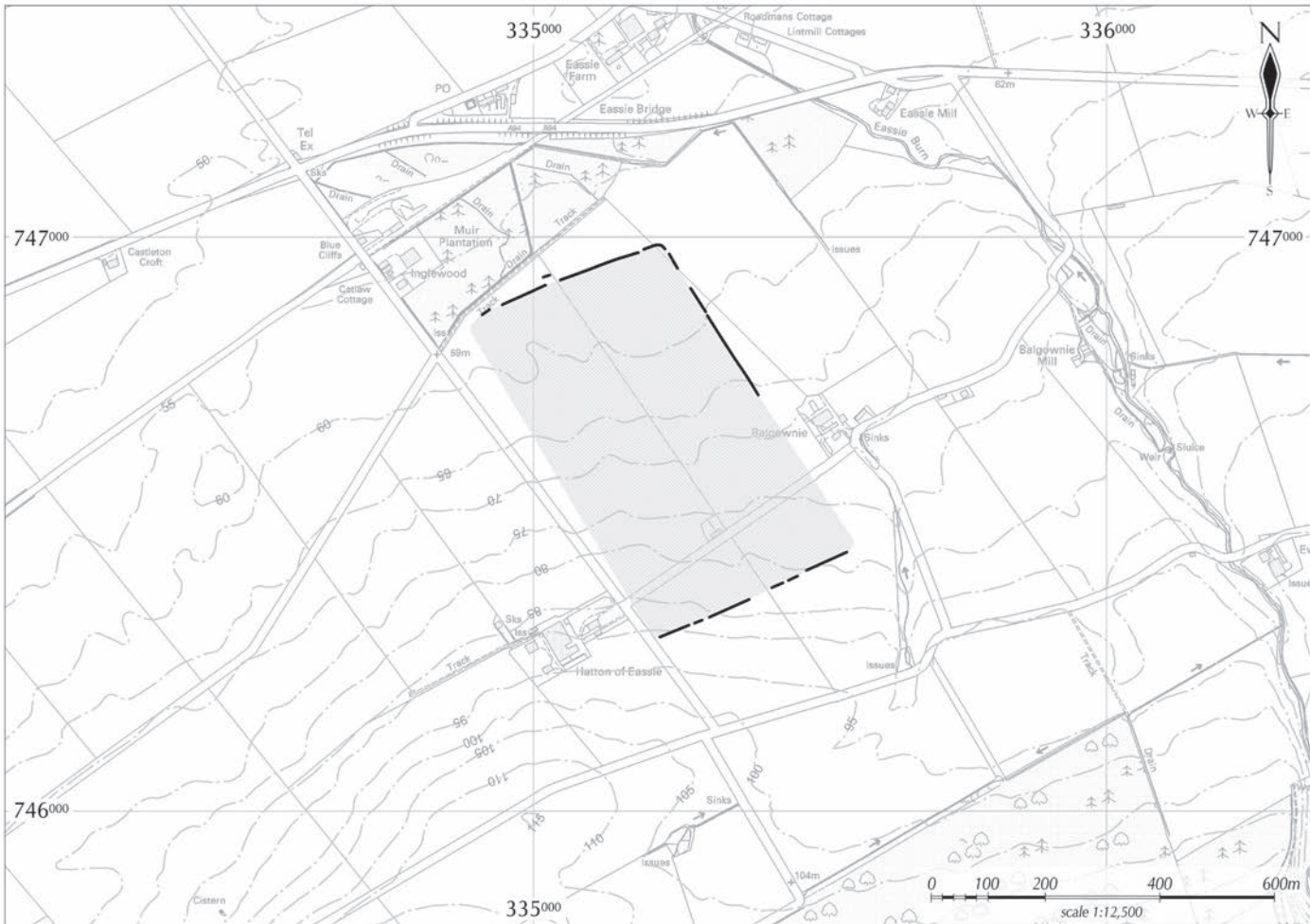


Illustration 120

Eassie. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Eassie (illus 47 & 120)

NO 3515 4665 NO 34 NE 26

The camp at Eassie was first discovered from the air by St Joseph in 1968 (St Joseph 1969: 111). It lies in Strathmore, 5km east of the camp and fort at **Cardean**, on land that slopes northwards to the Dean Water.

Parts of three sides have been recorded through cropmarks, and the camp measures about 650m from north-west to south-east by at least 365m transversely. An entrance with *titulus* is visible on the north-west side. If this is central, this would suggest that its transverse

dimension is about 400m, and the camp would enclose some 25ha (63 acres). There appears to be a corresponding entrance gap in the south-east side. St Joseph placed a trench through the north-west side in 1968, recording that the ditch was a very gentle V-shape, some 2.4m wide and 0.6m deep (RCAHMS St Joseph Collection: Notebook 5; DC 37354). Robertson also placed a trench through the camp in 1970, recording that the ditch had an irregular profile (Robertson 1970b: 4).

Eastcote (illus 47 and 102)

(Cavers; Denholm)

NT 5430 1774 NT 51 NW 23

First recorded from the air in 1960 by St Joseph (1961: 122), the camp at Eastcote lies in a bend in the River Teviot, just north-east of Hawick. The camp of **Cavers Mains** lies on a ridge less than 1km to the south-east. Parts of all four sides have been recorded through

cropmarks, but its north-west portion has been eroded by the river. The camp measured 348m from NNE to SSW by 322m transversely and enclosed just over 11ha (27 acres). Gaps in the cropmark on three of the sides may represent entrances.

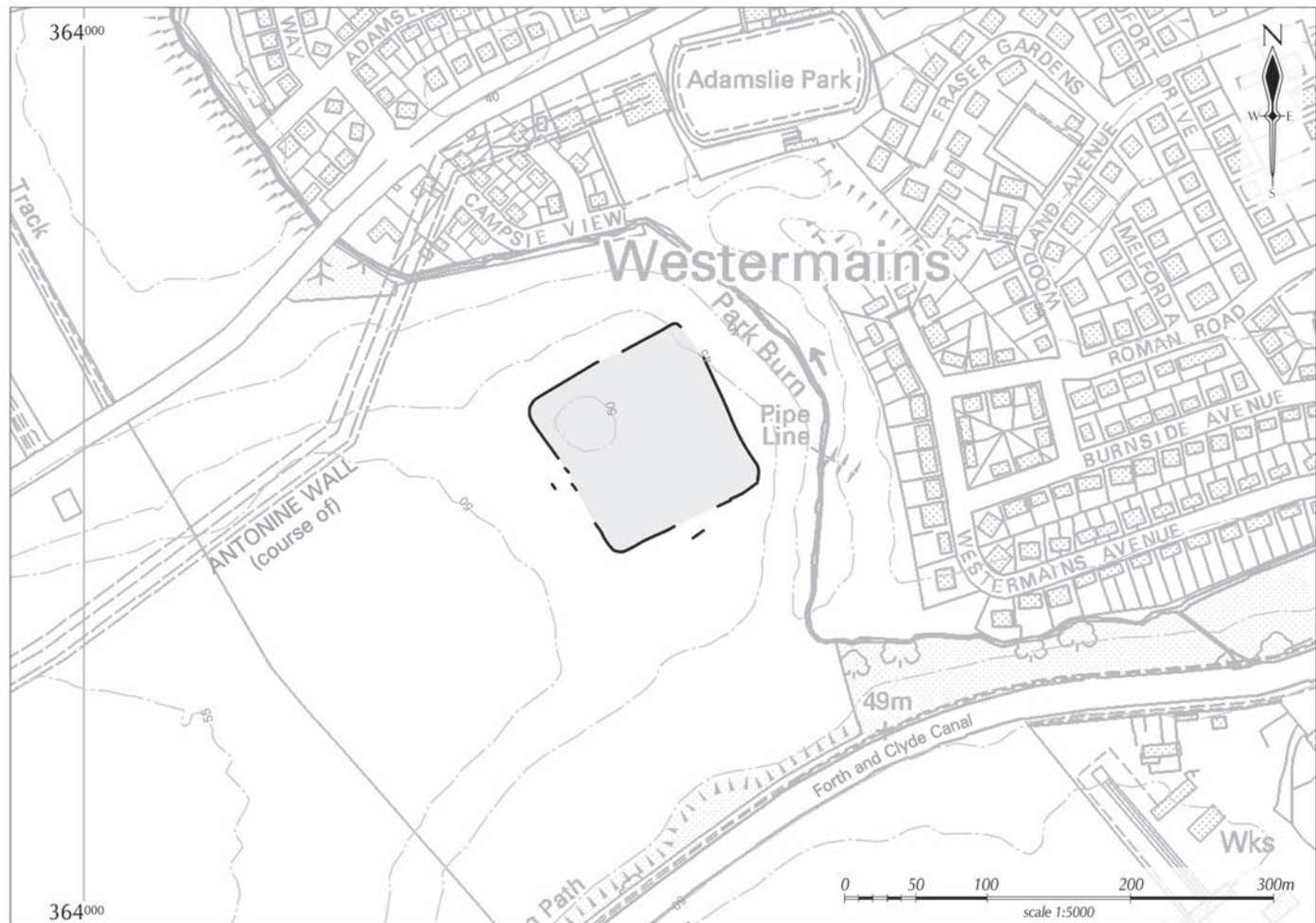


Illustration 121

Easter Cadder and the Antonine Wall. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Easter Cadder (illus 47 & 121)

(Adamslie; Adamslee)

NS 6440 7347 NS 67 SW 4

This camp lies just to the south of the Antonine Wall, midway between the fortlet at Glasgow Bridge and the

fort at Kirkintilloch. It was first discovered from the air by St Joseph in 1957 (1958: 89–90), and is situated in a

cultivated field on a low ridge to the west of the Park Burn (north of the Forth and Clyde Canal).

The camp is almost square, measuring about 125m from NNW to SSE by 120m transversely and encloses an

area of some 1.5 hectares (3.7 acres). Entrance gaps with *tituli* are visible in the centre of the WSW and SSE sides, with a further entrance gap in the NNW side. It is not possible to detect an entrance in the ENE side.

East Carmuirs (Lochlands: illus 167)

NS 8592 8065

South of the Lochlands Three Bridges area (see Lochlands, below), and now wholly under a housing estate, lies the camp of **East Carmuirs**, first recorded in 1949, prior to the construction of the houses (St Joseph 1951a: 62). It measured 163m from north to south by about 325m transversely, potentially enclosing around 5.5ha (13.6ha). It was originally believed to be small in size owing to a

NS 88 SE 22

possible slight arc on the ditch on the north side possibly suggesting the north-east corner, which would mean that the camp enclosed some 2.1ha (5.1 acres) (Feachem 1958: 336–7; RCAHMS 1963: 111–2). However, reappraisal of the air photographs suggests a continuation of the south side, implying that the camp enclosed a much larger area. A gap on the west side may represent an entrance.

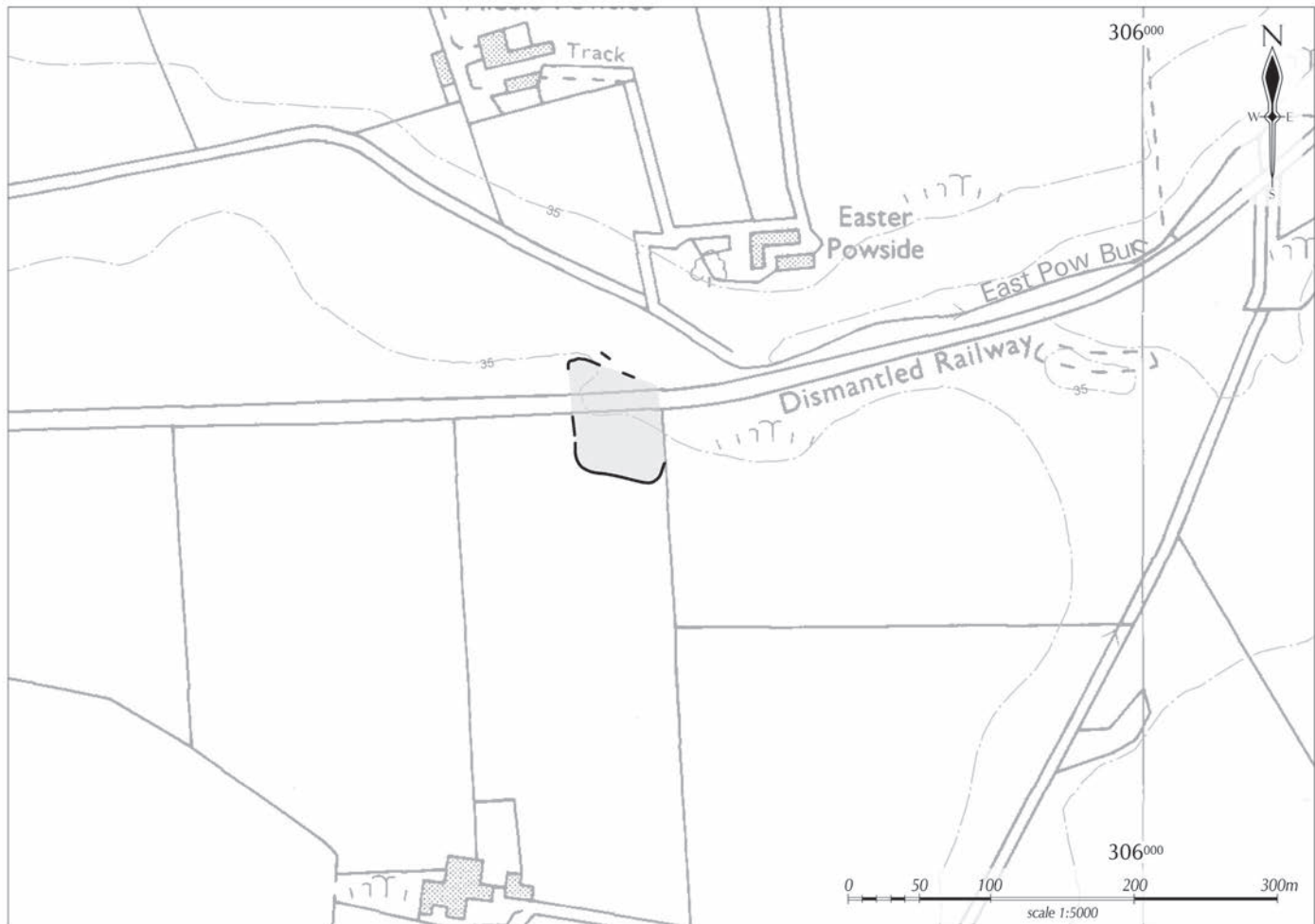


Illustration 122

Easter Powside. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Easter Powside (illus 47 & 122)

NO 0563 2457 NO 02 SE 52

The camp at Easter Powside was first discovered from the air by RCAHMS in 1979. It lies on slightly undulating ground north of Strathearn and the Gask Ridge, and just to the south of the East Pow Burn. The dismantled railway line from Perth to Crieff bisects the camp from east to west. Parts of all four sides of the camp have been recorded through cropmarks, and it is rhomboidal in form with a flattened northern side. It measures around 75m from north to south by 62m transversely, enclosing

about 0.45ha (just over 1 acre). There is a break in the north side, outside which is an apparent stretch of ditch offset at a slight angle, which may be the remains of a *titulus*. The corresponding south side continues unbroken, and the railway line has destroyed part of the other two sides. Woolliscroft placed a trench through the south-east corner in 1998, revealing a V-shaped ditch, 1.9m wide and 0.85m deep, which appears to have silted up naturally (Woolliscroft *et al* 2002: 29–31).

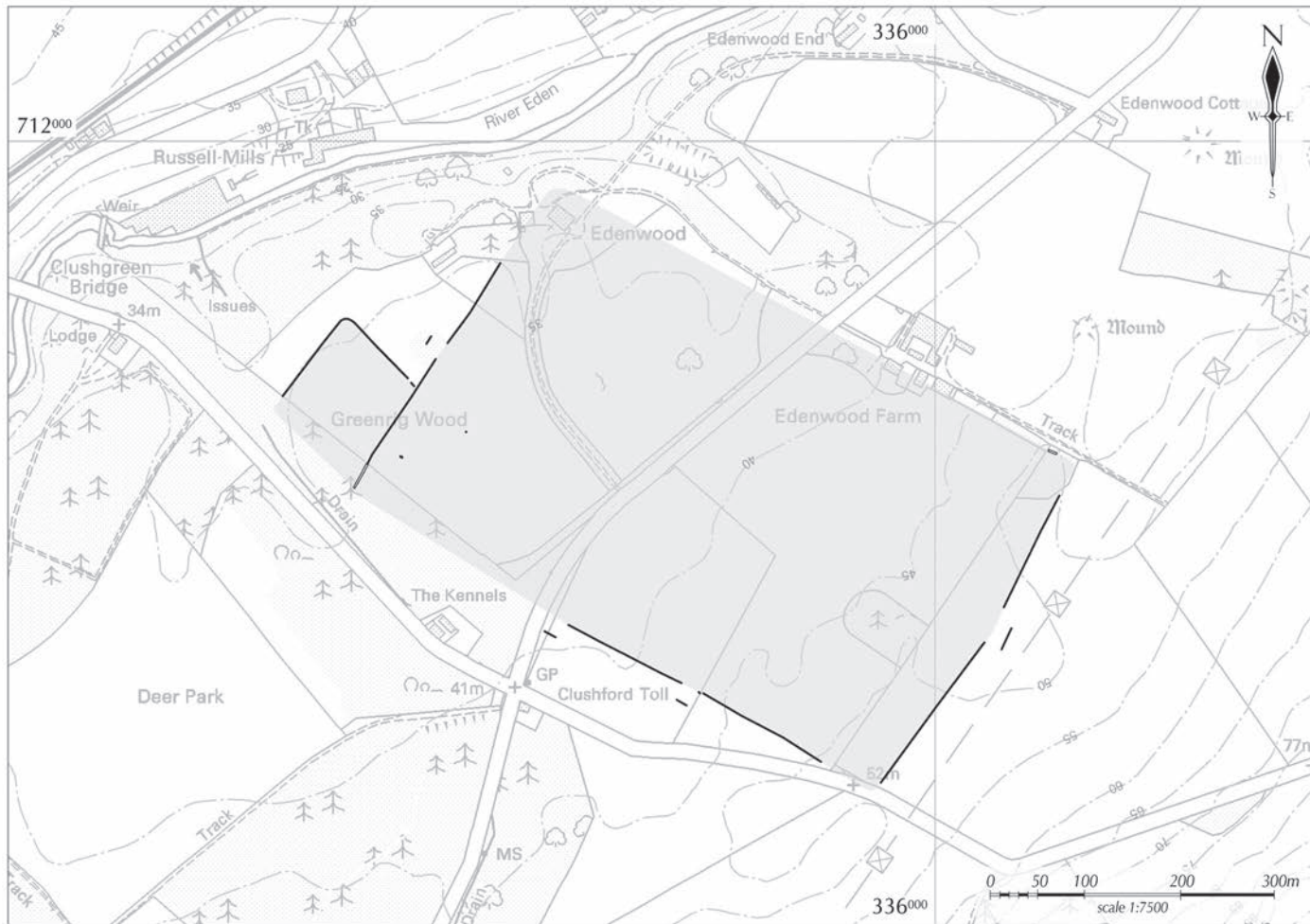


Illustration 123

Edenwood. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Edenwood (illus 47 & 123)

(Cupar; Eden Wood)

NO 3570 1170 NO 31 SE 39

The camp at Edenwood was first discovered from the air in 1978 by both St Joseph and Maxwell independently (Goodburn 1979: 274; RCAHMS 1978b: 37). It lies some 2km south-west of Cupar on relatively flat land on the north-west side of the Hill of Tarvit, close to the River Eden.

The camp measures 635m from north-west to south-east by 400m, enclosing almost 25ha (61 acres). Entrances protected by *tituli* are known on the north-west and south-east sides, with two on the south-west side; there were probably six in total. An annexe is visible on the north-west side, measuring 106m by at least 106m enclosing a further probable 1.1ha (2.8 acres). Although the camp is mostly known from cropmark remains, two small earthwork stretches have survived in woodland: on

the north-east side close to the east corner, and on the north-west side in Greenrig Wood running towards the west angle. The rampart on the north-east side is 0.3m high and spread about 4.4m wide.

Excavations by St Joseph and Maxwell in 1978–9 recorded that the ditch was up to 3.8m wide and 2.1m deep on the north-east side, but elsewhere its depth averaged *c* 1m. The ditch of the annexe was up to 3.3m wide and 1.3m deep (RCAHMS St Joseph Collection: Notebook 8).

Excavations by MacGregor in 1995 recorded the V-shaped ditch on the south-west side measuring up to 3m wide and 0.8m deep, possibly backfilled with rampart material. However, excavations on the south-east side

close to the south corner appeared to record a natural break in the ditch. Three pits were also revealed, two of

which showed evidence of burning, although no dating evidence could be obtained (MacGregor & Leslie 1998).

Ellisland (illus 47 & 112)

Ellisland I: NX 9285 8420
NX 98 SW 6

Ellisland II: NX 9285 8420
NX 98 SW 6

Situated across the River Nith from the forts and camps at **Dalswinton**, the two camps at Ellisland were recorded as cropmarks in 1949 and 1960 by St Joseph from the air. Camp I measures 101m from NNE to SSW by 65m transversely, enclosing 0.66ha (1.6 acres), although the eastern corner of the camp has been eroded by the river. An entrance gap

protected by a *titulus* is visible in the centre of the SSW side. In the south-west portion of the camp lies camp II, which uses part of the SSW and WNW sides. This camp measures 61m from NNE to SSW by 53m and encloses 0.32ha (less than 1 acre). It may share the same entrance gap and *titulus* in its SSW side as camp I.

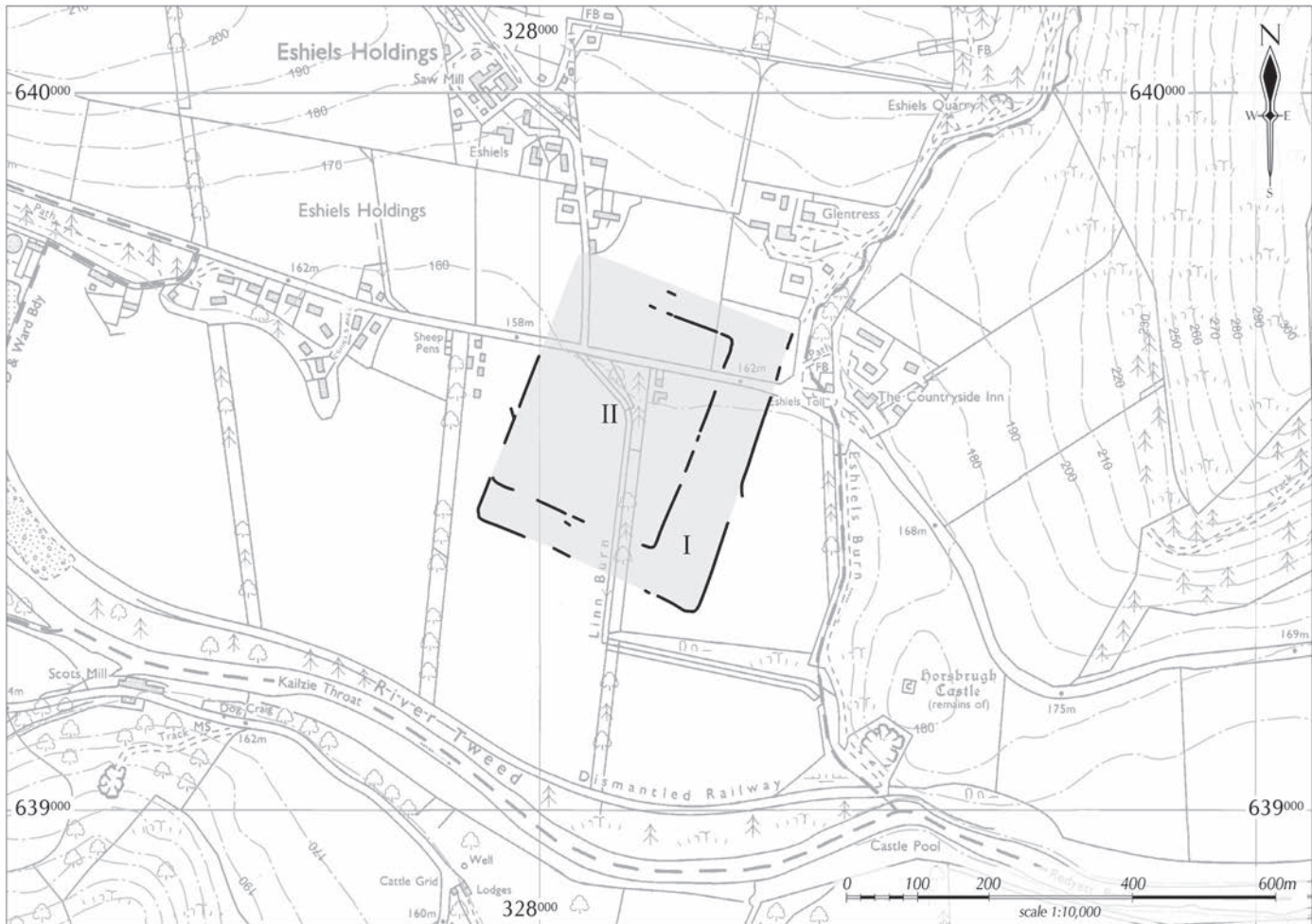


Illustration 124

Eshiels I-II. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Eshiels (illus 47 & 124)

*Eshiels I: NT 2815 3953
NT 23 NE 27*

*Eshiels II: NT 2815 3953
NT 23 NE 27*

The two camps at Eshiels lie on a level terrace on the north bank of the River Tweed. First recorded through cropmarks from the air in 1962 by St Joseph (1965: 79), the camps share part of their WNW sides. The full extent of camp I, the larger of the two, is not known, but 414m of the ESE side has been recorded, and, on topographic and morphological grounds, it is unlikely to have been much longer. It measures 327m from WNW to ESE, and it is likely that some 13.6ha were enclosed (almost 34 acres). Traces of a Stracathro-type entrance are recorded on its ESE and WNW sides: an oblique traverse is visible on the ESE side and that on the WSW may even have oblique traverses on either side of the gap; there are slight hints of an external *clavicula* on the south side (not depicted on illus 124).

Camp II, the inner camp, shares part of its WSW side with camp I. It measures 313m from NNE to SSW by 247m and enclosed 7.7ha (19 acres). Entrances in the centre of the NNE and SSW sides are visible, and both are protected by *tituli*. It is not possible to state whether it utilised the same entrance on the WNW side as camp I, because of the differing form of entrance protection.

RCAHMS probed the site in the early 1960s. It is unclear exactly where the probing took place on the camp, but a combination of probing and air photographs led them to construct much of the circuit of a camp, which by plan and dimensions must be camp II (1967: 171).

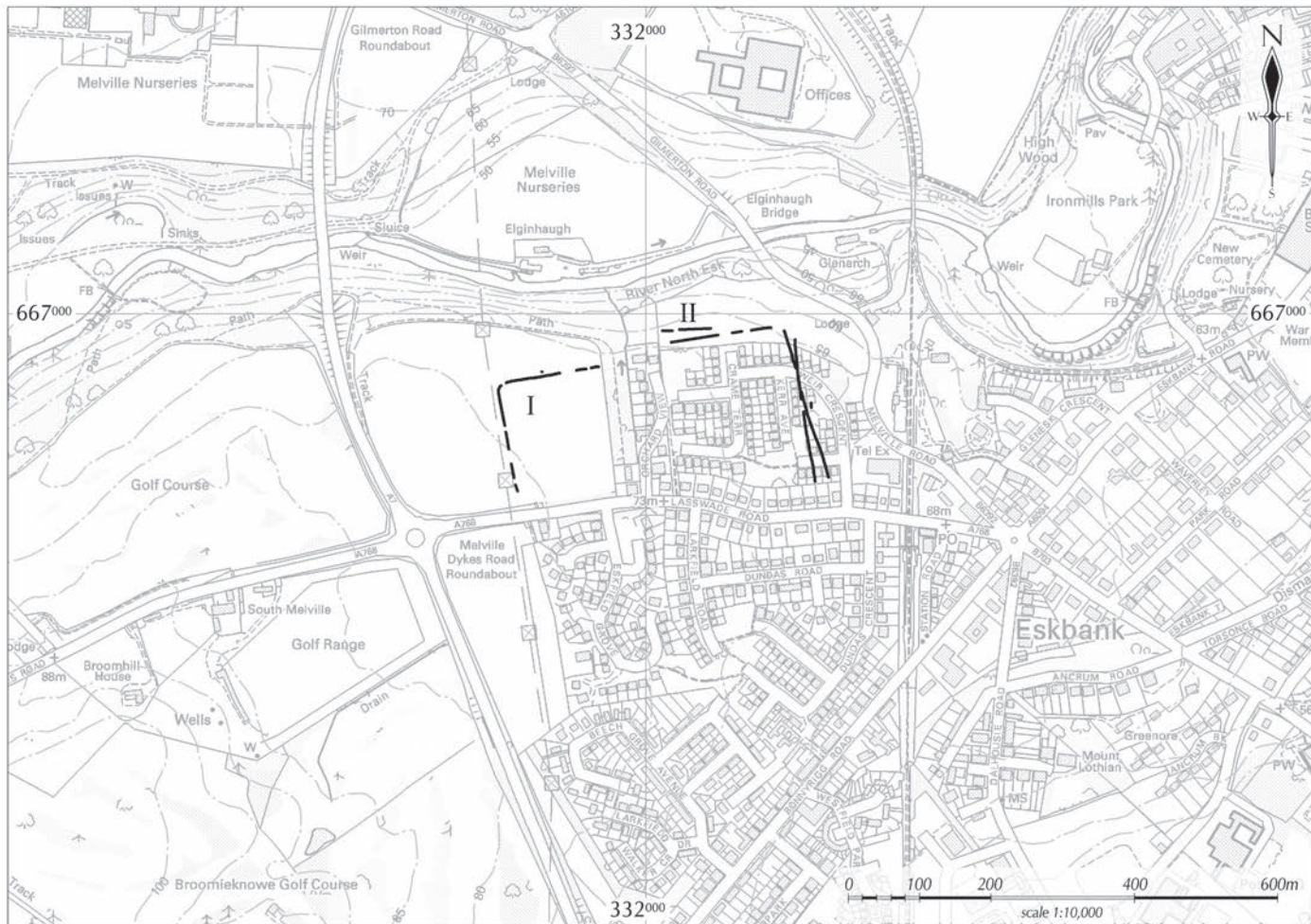


Illustration 125

Eskbank I-II. The Roman fort of Elginhaugh lay under the 'offices' to the north. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Eskbank (illus 125)

Eskbank I (A): NT 3213 6681
NT 36 NW 34

Eskbank II (B): NT 3213 6681
NT 36 NW 34

First recorded in the 1960s by St Joseph from the air (1965: 80), the overlapping camps at Eskbank lie on gently sloping land on the south side of the River North Esk, across from the Flavian fort of Elginhaugh (marked as 'Offices' on illus 125; Hanson 2007). Although originally recorded as cropmarks from the air, much of the area of the camps is now covered by a housing estate, which led to excavations on the camp ditches in 1972 (Maxfield 1975) and 1981 (Barber 1985).

The whole of the NNW side of camp I has been recorded, measuring 414m, together with stretches of the ENE and WSW sides. The southern side of the camp is unknown, but a field boundary running

parallel to the north side is visible on the 1st edition OS map (Edinburghshire 1854: sheet vii) and survives as a boundary in the modern housing estate. If this represented the south side of the camp then its north to south dimension could be 465m, suggesting that some 19ha (47 acres) were enclosed, although this is purely speculative. St Joseph undertook small-scale trenching on the WSW side of the camp in 1963, and he recorded that the ditch was V-shaped, around 2.1m wide and 1.2m deep (1965: 80). Maxfield's excavations on the ENE side revealed an irregular ditch, U- to V-shaped, measuring up to 3.1m wide and 0.9m deep (1975: 145), similar dimensions to those later recorded by Barber on the

NNW side (1985: 151). A *titulus* is visible in the ENE side of the camp; this was excavated and measured some 10.6m long, up to 3.2m wide and 0.8m deep. Running between the ditch terminals at the entrance was a 'flat-bottomed V-shaped trench', some 0.55m wide and 0.25m deep. This was interpreted as a probably belonging to the Roman occupation of the camp, and possibly to hold temporary hurdling (Maxfield 1975: 145–7; see above, section 7a).

Both excavations on the NNW and ENE side indicated fairly rapid infilling. The camp ditch is cut by the ditch of camp II and is therefore earlier in date (Maxfield 1975: 147–8). The construction of a later camp at the same location but on a slightly different alignment might explain the apparent slighting of the ditch.

Only stretches of the north and east sides of camp II have been recorded, indicating that the camp measured at least 220m by over 180m; no gates are known. Excavations by Maxfield on the eastern side recorded that the ditch was U- to V-shaped, up to 2.35m wide and 1.15m deep (1975: 147). She interpreted the cropmarks in the west field as relating to this camp, partly because of the excavated dimensions and also because of the lack of an entrance in the WSW side (1975: 147). However, gaps are visible in the cropmark evidence for this WSW side, and although none can be clearly interpreted as an entrance, it is apparent that it was not an entirely continuous line. This feature is interpreted here as belonging to Eskbank I, owing to the position of the cropmarks.

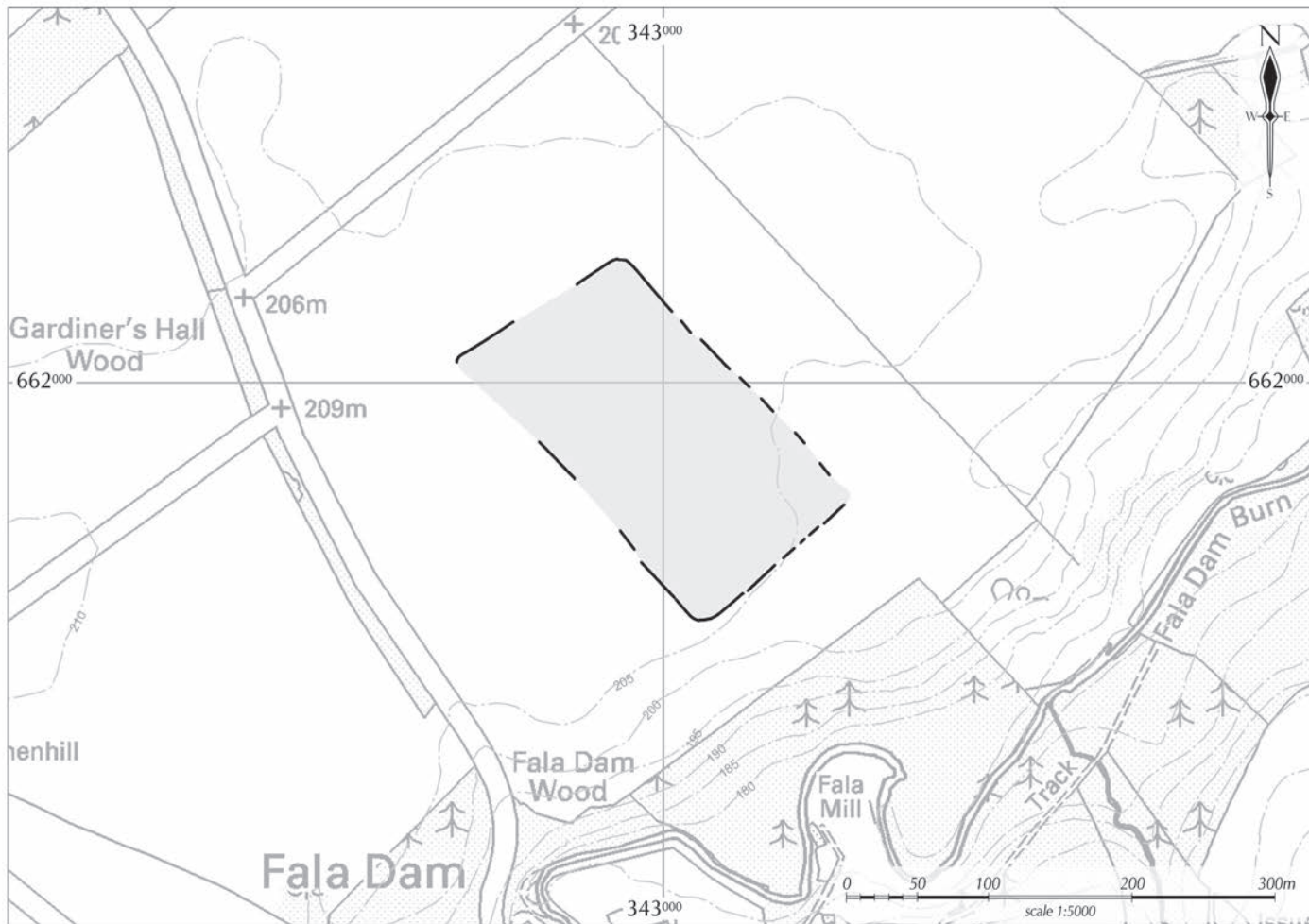


Illustration 126

Fala Mill. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Fala Mill (illus 47 & 126)

(Fala)

NT 4304 6200 NT 46 SW 28

The camp at Fala Mill was discovered from the air by Cambridge University in 1977 (Maxwell & Wilson 1987: 38). It lies about 1km north-west of the village of Fala and some 800m east of the modern A68, the presumed line of Roman Dere Street at this point. It lies on fairly level ground that slopes gently to the south-east towards the

Fala Dam Burn. Parts of all four sides have been recorded through cropmarks, and it measures about 248m from north-west to south-east by 136m transversely, enclosing an area of some 3.3ha (8.1 acres). No entrances are known.

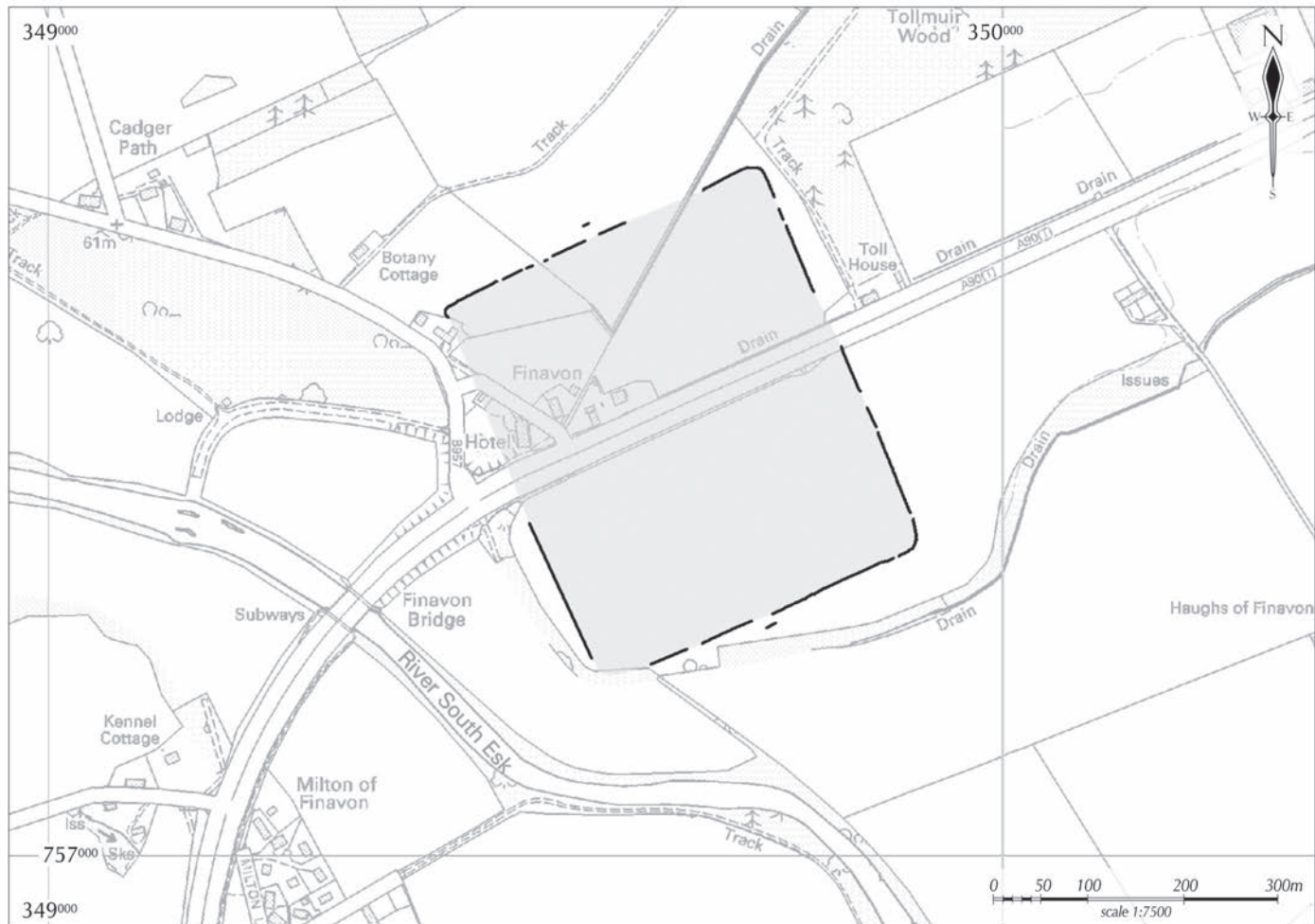


Illustration 127

Finavon. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Finavon (illus 47 & 127)

NO 4965 5745 NO 45 NE 21

The camp at Finavon was first discovered through cropmarks from the air by St Joseph in 1962 (1965: 83), lying on a terrace to the north of the River South Esk, only 1km WSW of the camp at **Marcus**.

It measures 435m from NNW to SSE by 370m transversely, enclosing an area of 16ha (39.5 acres). Entrance gaps are visible in the centre of the NNW and SSE sides, both protected by *tituli*. A further entrance gap is visible in the ENE side, south of the A90 road that crosses the camp.

St Joseph carried out several excavations on the camp, publishing that the ditch was 1.4m wide and

0.8m deep (1965: 83, although his notebooks suggest a level of variation across the sections that he excavated – RCAHMS St Joseph Collection: Notebooks 3 & 4). Further trenching on the ENE side in 1987, in advance of road widening, recorded a shallow ditch, with one steep side and flat bottom (the other side had been truncated), measuring about 2m in width and 0.3m in depth. Later features cut through the ditch, including an almost V-shaped ditch, 0.8m wide and 0.3m deep. Both ditches were believed to have been deliberately backfilled (Halpin 1992: 173–5, 178–9).

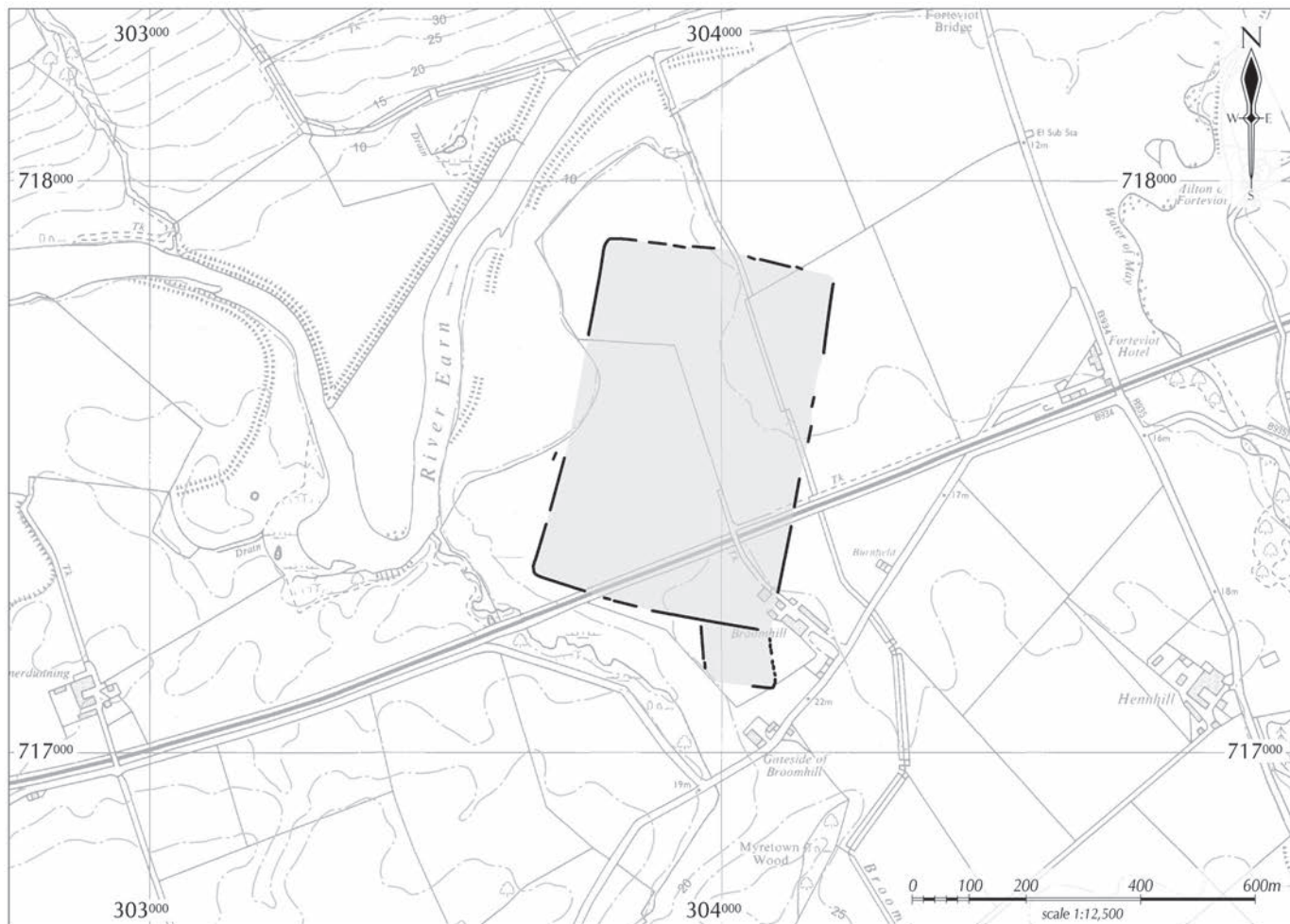


Illustration 128

Forteviot. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Forteviot (illus 47, 63, 73, 128 & 129)
(Broomhill)

NO 0394 1753 NO 01 NW 1

The camp at Broomhill Farm, Forteviot, was first discovered through cropmarks on air photographs by Feachem in 1951, with parts of the ditch confirmed by probing (1952: 217); the majority has now been recorded from the air (illus 129). It lies on a level terrace close to a

meander in the River Earn, with the camp at **Dunning** some 2.5km to the SSW, and the Gask Ridge across the Earn to the north. It measures 640m from NNE to SSW by 410m transversely, enclosing 26ha (64 acres). There is a small annexe on the eastern part of the SSW side,



Illustration 129

Aerial view of the west side of Forteviot, taken from the south in 2001. © Crown copyright: RCAHMS. SC1164180.
Licensor www.rcahms.gov.uk.

measuring 98m by 120m enclosing a further 1.2ha (3 acres). Probable entrances are recorded in the centre of the NNE and SSW sides and one in the WNW side is protected by a *titulus*. The position of these entrances suggests that the camp had six gates.

Trenches were placed through the camp in 1952 by Aitken, locating the western entrance, but no further information was provided (Taylor 1953: 105–6). A gold coin of Hadrian was found on Broomhill farm in 1829 (Bateson 1989: 166).

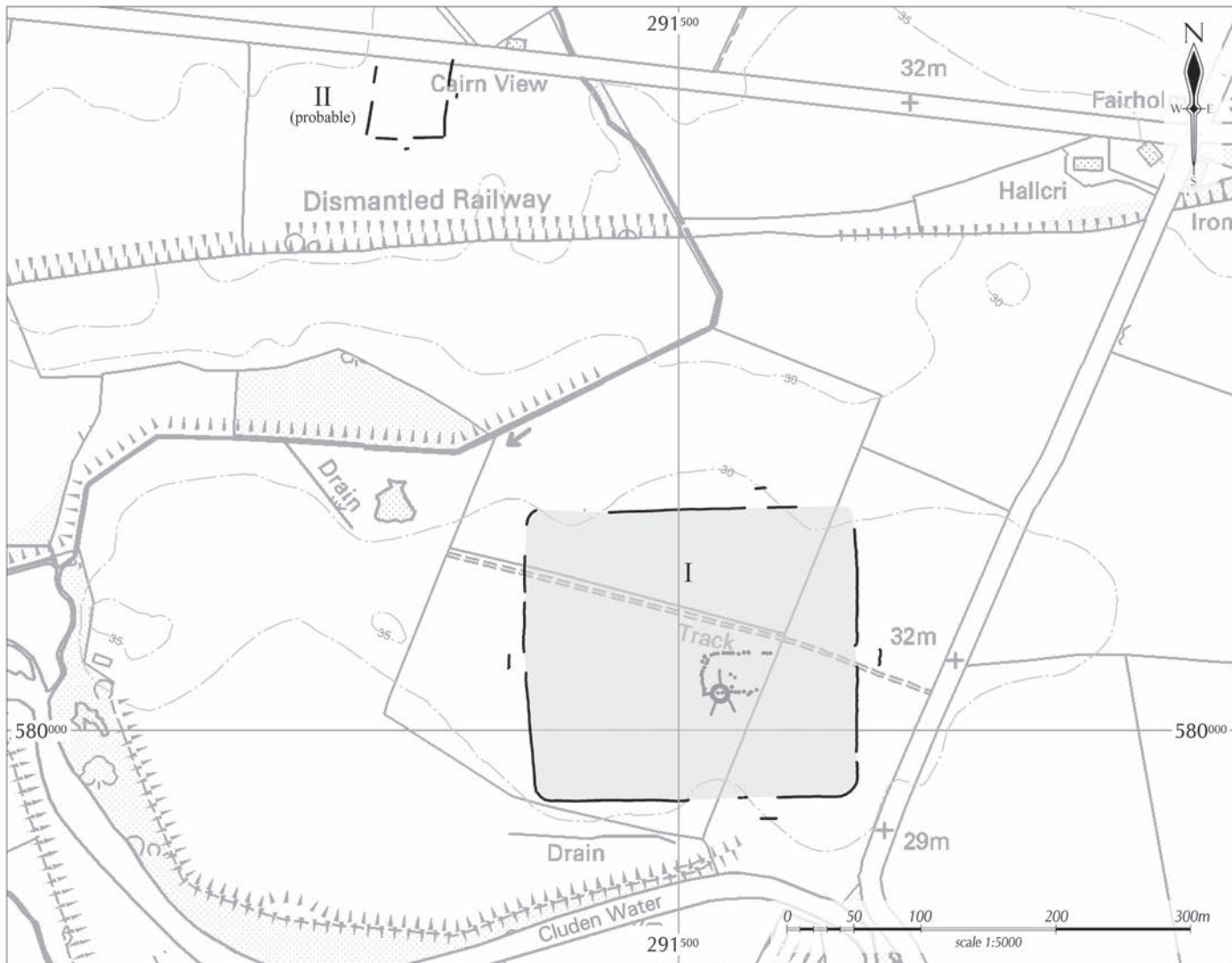


Illustration 130

Fourmerkland I and probable camp II. The Neolithic pit-defined cursus lies within camp I. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Fourmerkland I (illus 47 & 130)
(Burnside of Baltersan)

NX 9150 8005 NX 98 SW 5

Discovered in 1949 by St Joseph from the air as cropmarks (1951: 60), the camp at Fourmerkland lies on level ground above the Cluden Water, a tributary of the River Nith. The camp measures 245m from west to east by 215m transversely, enclosing 5.2ha (almost 13 acres). Entrance gaps protected by *tituli* are visible in all four sides, with

the position of the side gates suggesting that it faced in an easterly direction.

A pit-defined Neolithic cursus is visible in the interior of the camp, and a further probable camp lies just under 300m to the north (**Fourmerkland II**).

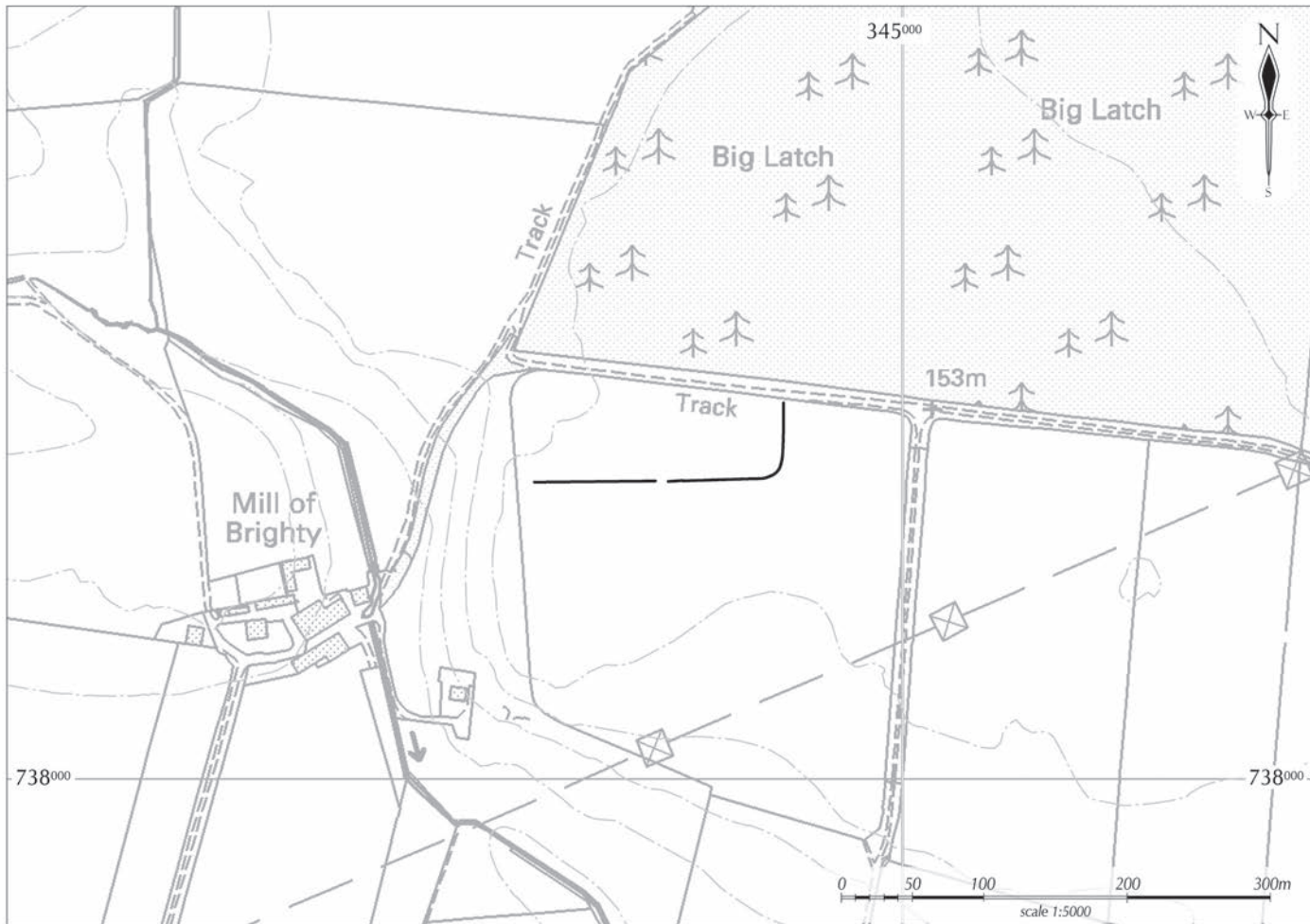


Illustration 131

Gage. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Gage (illus 131)

NO 4481 3830 NO 43 NW 23

The camp at Gage was first recorded through cropmarks by St Joseph in 1970 (1973: 224). It lies on gently sloping ground north of Gage House, with the Sweet Burn running to the south-west. Stretches of the south and east sides (173m and 53m respectively) have been recorded as cropmarks, together with the rounded south-east angle.

St Joseph conducted excavations on the east side in 1970, recording that the ditch measured up to 1.45m in width and 0.7m in depth, but was flat-bottomed at one point (1973: 224; RCAHMS St Joseph Collection: Notebook 5).



Illustration 132

Gallaberry and other cropmarks in the area. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Gallaberry (illus 14, 47 & 132)
(West Gallaberry; Galloberry)

NX 9636 8272 NX 98 SE 4

Discovered in 1939 by Crawford on one of his seminal flights into Scotland (see Chapter 4), the cropmark camp at Gallaberry lies on level ground about 1km east of the River Nith and less than 3km south-east of the fort and camps at **Dalswinton**. The camp is a parallelogram in form, measuring 109m from south-west to north-east by 61m, enclosing 0.67ha (1.7 acres). An entrance gap

is visible in the south-west side and a further break can be seen in the south-east side, but this is not clearly an entrance. Excavations in 1939 by St Joseph recorded that the ditch was V-shaped, about 3.35m wide and 1.4m deep (Taylor 1940: 162; St Joseph 1952b: 120–2). The site overlies a probable Neolithic cursus monument and is close to a small prehistoric fort.

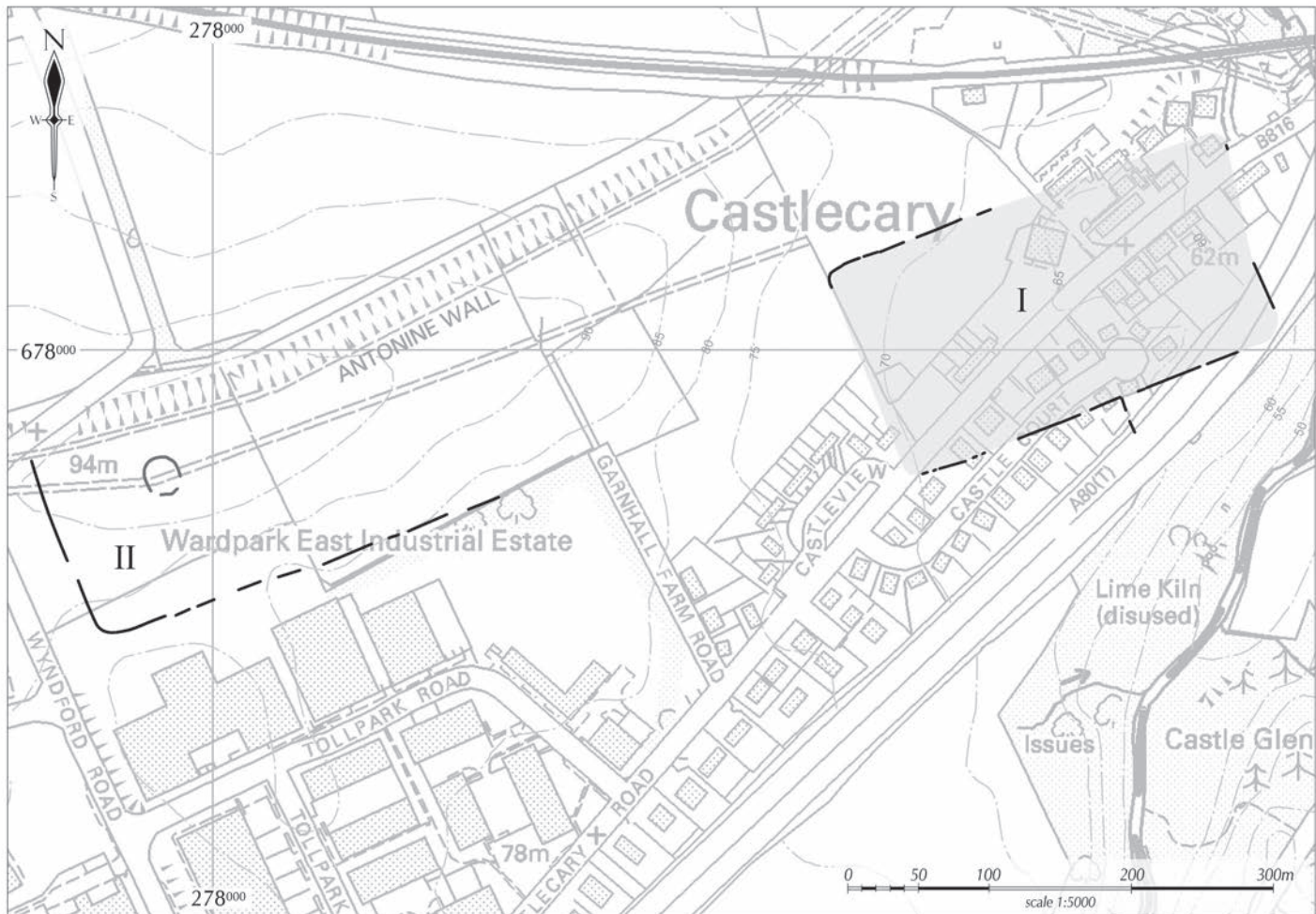


Illustration 133

Garnhall I-II and the Antonine Wall. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Garnhall (illus 47 & 133)

(Castlecary; Tollpark)

Garnhall I: NS 7850 7803
NS 77 NE 14

Garnhall II: NS 7805 7791
NS 77 NE 30

The remains of two camps at Garnhall were discovered from the air by St Joseph, the first in 1952, with a second, nearby, recognised as a camp in the early 1960s (St Joseph 1955: 86; 1965: 80). A third camp lies nearby at **Tollpark** (St Joseph 1951a: 62). The camps lie to the south of the Antonine Wall, between the forts of Castlecary and Westerwood, near the farm at Garnhall.

The ground on which both camps lie slopes gradually from west to east towards the Red Burn, across from which lies the fort of Castlecary. Both lie in areas of former agricultural fields now subject to considerable development, camp I on land formerly occupied by

Castlecary House, now the village of Castlecary; camp II in improved pasture with the Wardpark North and East Industrial Estates in the immediate vicinity. Both camps have been subject to recent excavation, the former through the gradual development of Castlecary Village; the latter in relation to a research programme looking at potential watchtowers on the Wall, because a circular enclosure is located inside the camp's perimeter (Woolliscroft 2009).

Camp I measures about 290m from ENE to WSW by around 160m transversely, enclosing an area of some 4.5ha (just over 11 acres), although the final size cannot

be determined with certainty, partly owing to problems with transcription of the cropmarks (as a result of major landscape changes since the aerial photographs were taken and the need to use less accurately geo-referenced earlier maps), and partly owing to the findings from excavations. An entrance gap has been located on the SSE side, east of centre.

Sections of the camp have been excavated on five occasions, mostly owing to the gradual development of the village. That in 1990 suggested that the south-west corner was farther west than had previously been supposed (Keppie 1990). The results of the various excavations demonstrated that the camp ditch had a fairly typical V-shaped profile, measuring, at best, 1.3m in width and up to 1m in depth (Keppie 1990) and had a single construction phase. A small ditch appears to run due SSE at right angles from the west side of the entrance gap on the SSE side. This was excavated in 1994 and appeared to be contemporary with the camp ditch, the excavator suggesting that it acted as a gully to aid drainage down the slope to the Red Burn (Speller 1994).

The rampart of the camp was not recorded in the excavations, although turves were present in an anaerobic area of ditch in 1994. This area was interpreted as being close to a springhead, causing the waterlogging. The excavator proposed that the presence of turves could be due to possible rampart repairs necessary following subsidence caused by the springhead. This hypothesis was used to argue for possible extended occupation of the camp as a construction camp (Speller 1994: 17). While this argument has much to commend it, the possibility remains that the turves could be present owing to natural erosion, and were preserved in this section because of the boggy conditions.

Camp II is situated some 500m west of camp I. Only parts of two sides, the SSE and WSW, are known of this camp, lying in the two fields west of Garnhall Farm. The SSE side measures at least 300m, and the WSW some

133m before reaching the Antonine Wall. The elongated shape of this camp and the location of shorter WSW side, running up to the Wall and crossing the Military Way, led St Joseph to suggest that the camp probably continued to the north and therefore pre-dated the Wall (1965: 80). No entrances have been located.

In the interior of the camp lies a circular enclosure, excavated in the 1990s and interpreted as a watchtower (Woolliscroft 2009). In addition, a small excavation trench was opened up on the west side of the camp ditch and demonstrated that the ditch was V-shaped, measuring 1.73m in width and 1.27m in depth with the hint of a slot at the base. A trench at the potential intersection of the camp with the Antonine Wall located a rounded butt end terminal that was stratigraphically later than a stone platform protruding south from the Wall. This stone platform itself was later than the initial building phase of the Wall, and was slightly damaged by the construction of the camp, but not then repaired, suggesting that the platform had gone out of use by the time the camp was constructed (Woolliscroft 2009). However, because the function of the platform is uncertain, it is not possible to assess whether the Wall itself was abandoned by the time the camp was constructed, and the possible intersection with the Military Way was not explored. A further trench north of the Wall failed to locate any evidence for the continuation of the camp ditch.

Therefore, camp II post-dates a feature that is secondary to the Wall construction and does not fit in with the series of construction camps for the Antonine Wall. If the camp post-dates the occupation of the Wall, then it could have utilised the rampart of the Wall as its north side although it still represents an unusually elongated shape for a camp. If it represents an enclosure for a body of troops while the Wall was in operation then this begs the question of why a ditch was required, rather than just demarcate the area necessary, because presumably the immediate vicinity south of the Wall was a secure area.

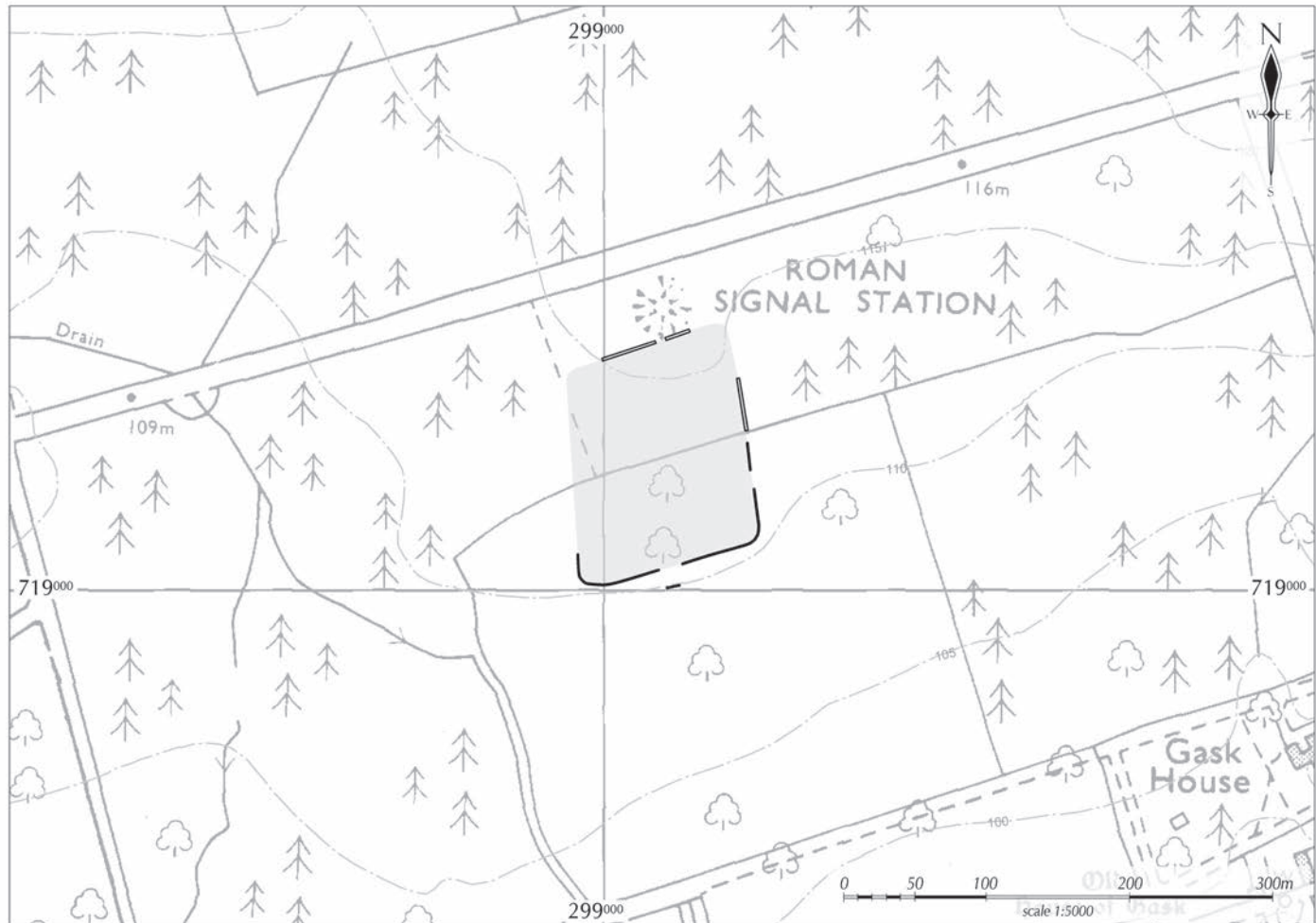


Illustration 134

Gask House and its adjacent signal station. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Gask House (illus 47 & 134)
(Gask Ridge)

NN 9905 1909 NN 91 NE 9

This camp on the Gask Ridge was first recorded in an anonymous manuscript (with plan) of 1789 (Christison 1901: 35–6). It lies immediately south of the Gask House watchtower on the Gask Roman road. Christison recorded slight traces of it on the surface, observing that the south part had been ploughed. He placed various trenches through the camp in his attempt to relocate it, noting the number of drainage ditches in the area. He recorded the ditch measuring only 0.9m in width and 0.45m in depth.

The camp was ‘rediscovered’ by St Joseph in 1960, with its northern part visible as a low earthwork in a

plantation belt, and the southern half revealed through cropmarkings (1965: 81–2). The camp measures about 152m from north to south by 129m transversely, enclosing almost 2ha (4.8 acres). The 1789 plan indicates that the camp had four entrances: in the centre of the north and south sides, and towards the north in the other two sides; all except the south are recorded with *tituli*. More recent air photographs reveal a *titulus* protecting this southern entrance. The counterscarp bank is still visible in places in the north half of the camp, measuring some 4m wide and 0.3m high.

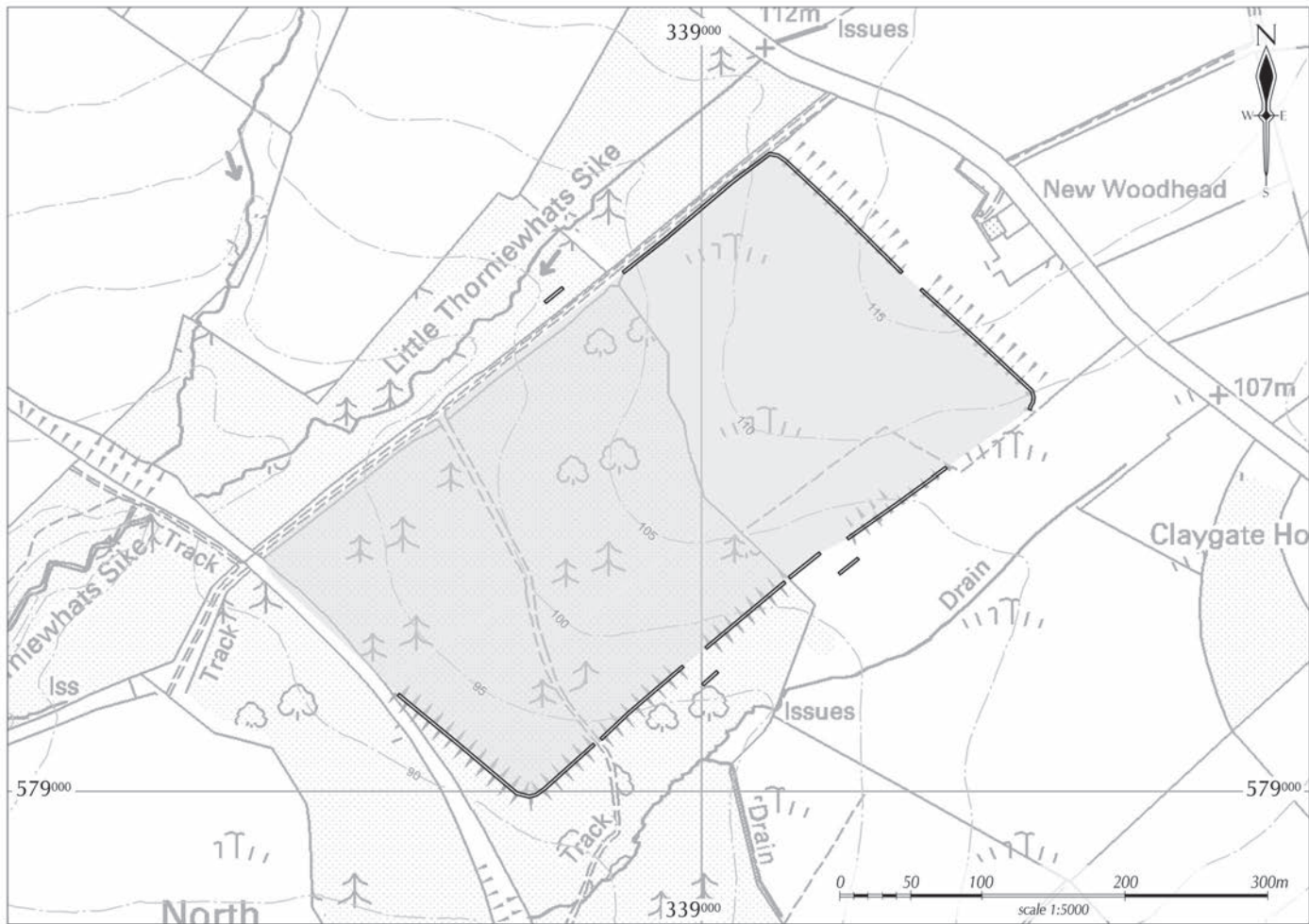


Illustration 135

Gilnockie. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Gilnockie (illus 47 & 135)

NY 3895 7922 NY 37 NE 2

This earthwork was depicted as a 'camp' on the 1st edition of the Ordnance Survey map (Dumfriesshire 1862: sheet liii) but was first properly recorded in 1912 by RCAHMS during field survey (1920: 27–8). It lies on a slope that faces south-west above the River Esk, about 2km south-east of the Roman fort at Broomholm. Stretches of the camp survive as an earthwork, partly in woodland, with a track occupying the line of the north-west side. A now dismantled railway line has destroyed part of its south-west side, and the camp measures 465m from south-west

to north-east by 251m transversely, enclosing 11.3ha (28 acres). Two *tituli* are visible in the south-east side and a further *titulus* in the north-west; the camp probably had six entrances.

The upstanding rampart survives to a height of about 1.1m and is spread some 6.5m wide. The accompanying ditch is shallow and about 5m wide. The *tituli* on the south-east side survive to a height of 1m above a shallow ditch, with their ramparts spread some 7m wide.

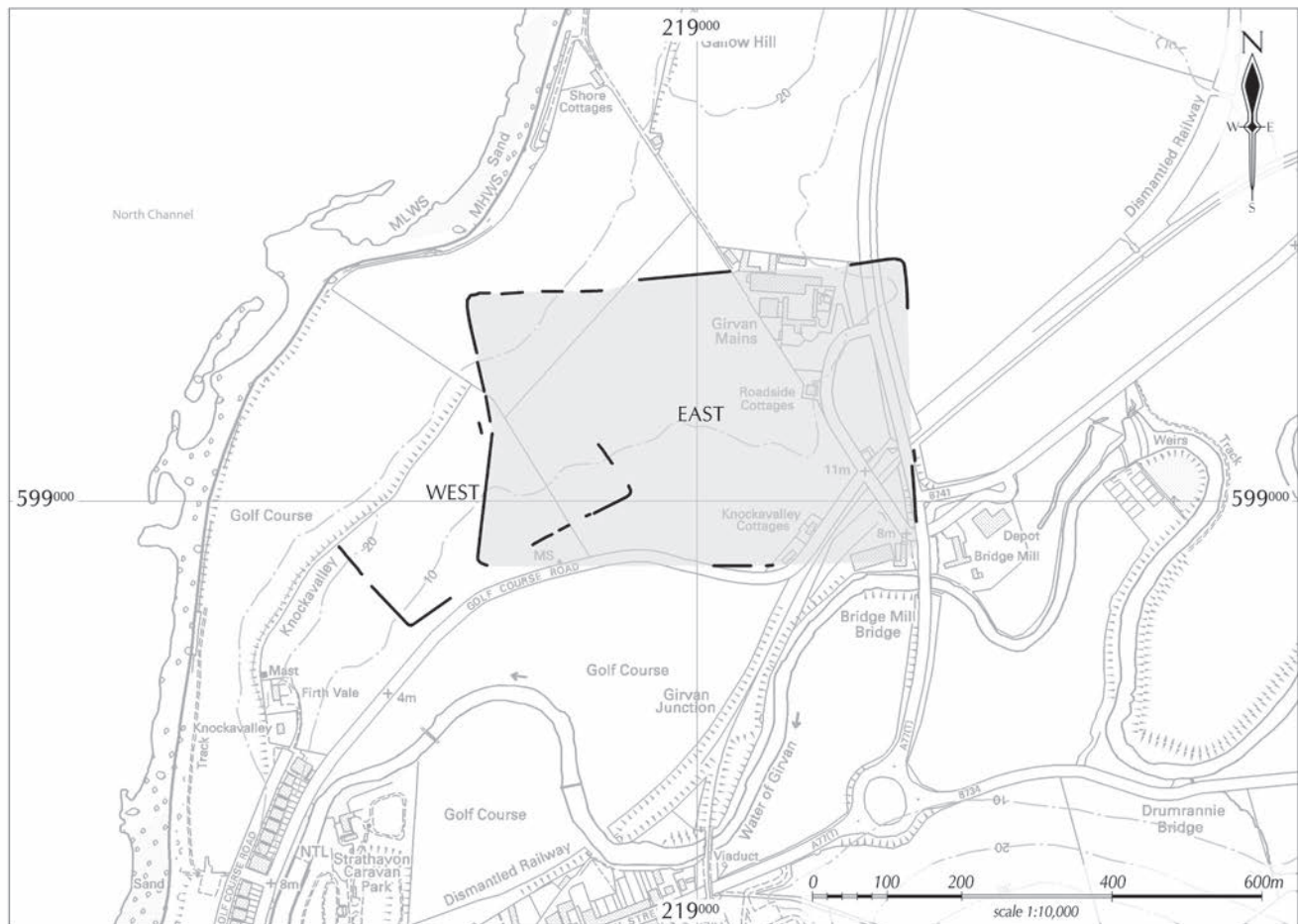


Illustration 136

Girvan Mains East and West. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Girvan Mains (illus 47 & 136)

*Girvan Mains East: NX 1900 9915
NX 19 NE 24*

*Girvan Mains West: NX 1870 9900
NX 19 NE 47*

On the north bank of the Water of Girvan, overlooking the North Channel, lie two intersecting camps recorded in the 1970s as cropmarks by Cambridge University (St Joseph 1978b; Maxwell & Wilson 1987: 34). The eastern of the two measures about 560m from west to east by 390m transversely and enclosed 22ha (54.5 acres). The western side bows inwards at its centre towards an entrance gap protected by a *titulus*. Various excavations and watching briefs have been conducted on the camp, and the ditch has been recorded as measuring up to 3.05m in width and 1.25m in depth (St Joseph 1978b: 397). St Joseph reported that he had recovered the north-west corner of the camp on excavation (Maxwell & Wilson 1987: 34–5; RCAHMS St Joseph Collection: DC37383), but this claim was

refuted when more of the camp was recorded from the air (Frere 1991: 230). It has been suggested that a gate lay at the position where the north-west corner was originally assumed to lie (Cox 1993).

West of this camp and intersecting it at its south-west corner lies a further camp, which measures 353m from south-west to north-east by at least 140m; the position of the north-west side is unknown. Alongside its neighbour, various excavations and watching briefs have been undertaken, and the excavated ditch of this camp has been recorded as measuring up to 1.37m in width and 1.06m in depth. A glass vessel dated to the late 1st century AD was recorded in the primary ditch fill of this camp (Maxwell & Wilson 1987: 34–5).

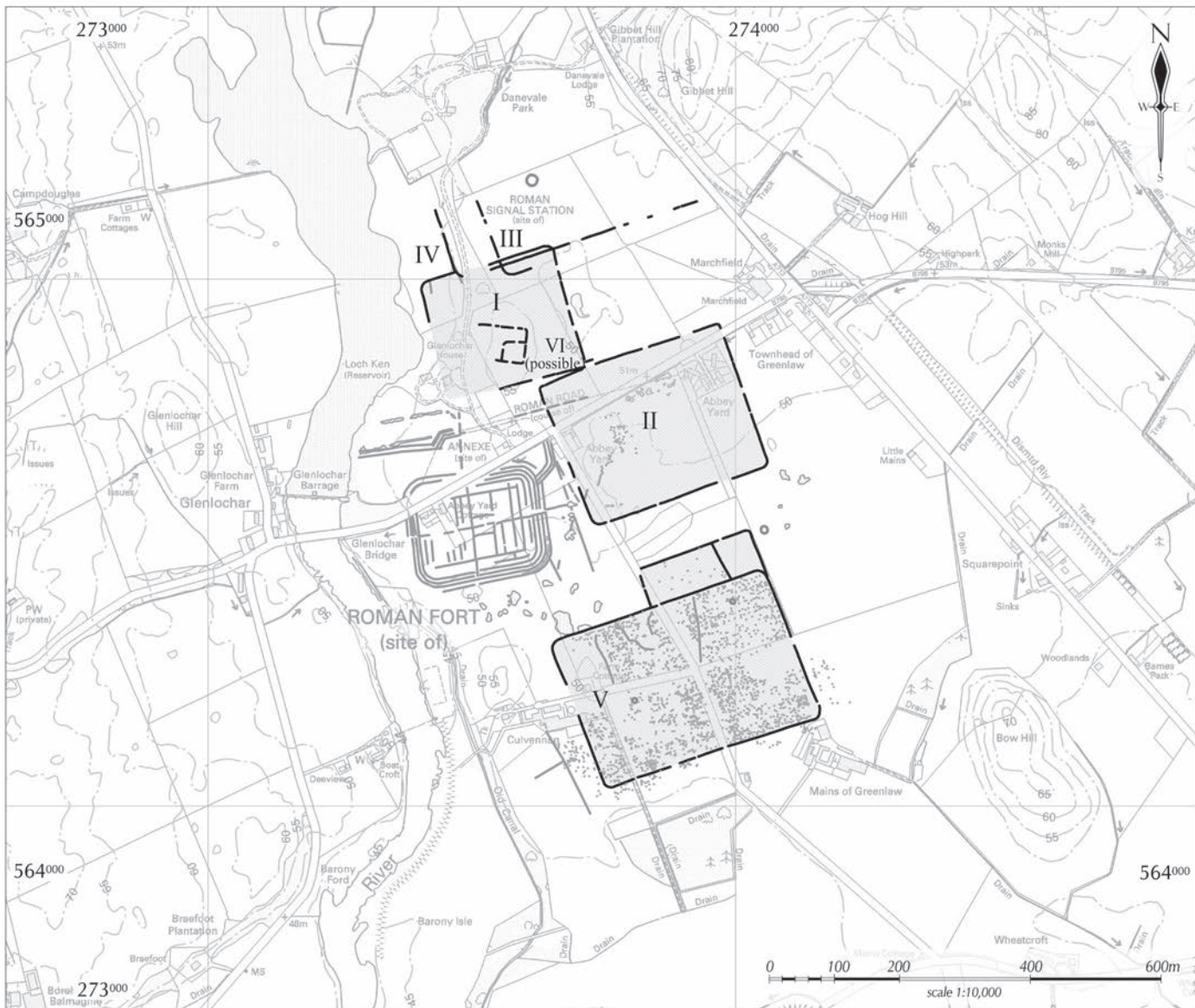


Illustration 137

Glenlochar I–V and possible camp VI and other cropmarks including the Roman fort and its annexes. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Glenlochar (illus 47, 54 & 137)

Glenlochar I: NX 7355 6495
NX 76 NW 3

Glenlochar II: NX 7382 6470
NX 76 SW 6

Glenlochar III: NX 7360 6507
NX 76 NW 3

Glenlochar IV: NX 7355 6505
NX 76 NW 4

Glenlochar V: NX 7390 6424
NX 76 SW 5

A series of camps has been recorded outside the Roman fort at Glenlochar on the east bank of the River Dee, all discovered as cropmarks by St Joseph in 1949 (1951a:

60–1). Excavations at the fort have identified three phases: one Flavian and two Antonine, with a further earlier Flavian (Agricolan) fort suspected just to the

north of the main fort site (Richmond & St Joseph 1953).

At least five camps are known at Glenlochar, one (V) exhibiting an annexe with an internal partition. St Joseph recorded a further possible two-phase camp in the interior of camp I (Glenlochar VI, see St Joseph 1958: 89; RCAHMS St Joseph Collection: DC 37387–8; and below, possible camps), but this enclosure is probably not Roman in origin.

Camp I lies to the north of the fort and measures 260m from WSW to ENE by 238m transversely, enclosing 6ha (almost 15 acres). No clear entrance gaps have been recorded. It intersects camps III and IV and therefore could not have been contemporary with either of these camps, and is extremely close to the perimeter of camp II.

Camp II lies south-east of camp I, immediately ENE of the fort. It measures 355m from WSW to ENE by 294m, enclosing 10.2ha (25 acres). A short length of linear cropmark north of the NNW side may be the remains of a *titulus*. The course of the Roman road cuts through the northern portion of the camp and a number of quarry pits can be seen in this area. A number of other pits are visible in the interior of the camp, but they do not seem to have much regularity in their structure.

Camp III lies to the north of camp I, and intersects both this camp and camp IV, although the relationship between the three is unknown. Only parts of two sides have been recorded, at least 150m of the WSW

side, a rounded southern corner angle and at least 85m of the SSE side. Visible in the interior of the camp is a ring-ditch, which is possibly the remains of a Roman tower.

Camp IV lies to the west of camp III. Only parts of two sides of this camp are known, intersecting camps I and III, and running parallel just inside the NNW side of camp I.

Some 345m of the SSE side has been recorded, together with at least 85m of the WSW side.

To the south of the group of camps lies camp V, south-east of the fort. Measuring 434m from ENE to WSW by almost 300m, it enclosed 12.9ha (almost 32 acres). Possible entrance gaps are visible in the perimeter but none confirmed. An annexe is attached to its NNW side, measuring some 229m by 78m and enclosing an additional 1.74ha (4.3 acres). This has an internal partition, dividing the internal area to 1.2ha (3 acres) and 0.54ha (1.3 acres) areas. There are a couple of linear cropmarks within the camp but none appears to represent a reduction in the camp, and it is possible that the linear cropmark in the annexe was demarcating different activities in the annexe rather than two phases of use. Alternatively, the cropmark may not be Roman in date, and may represent later use of the annexe enclosure. This camp exhibits a considerable amount of pits in the interior (see section 7f), and more pits are visible in the area between it and the fort.

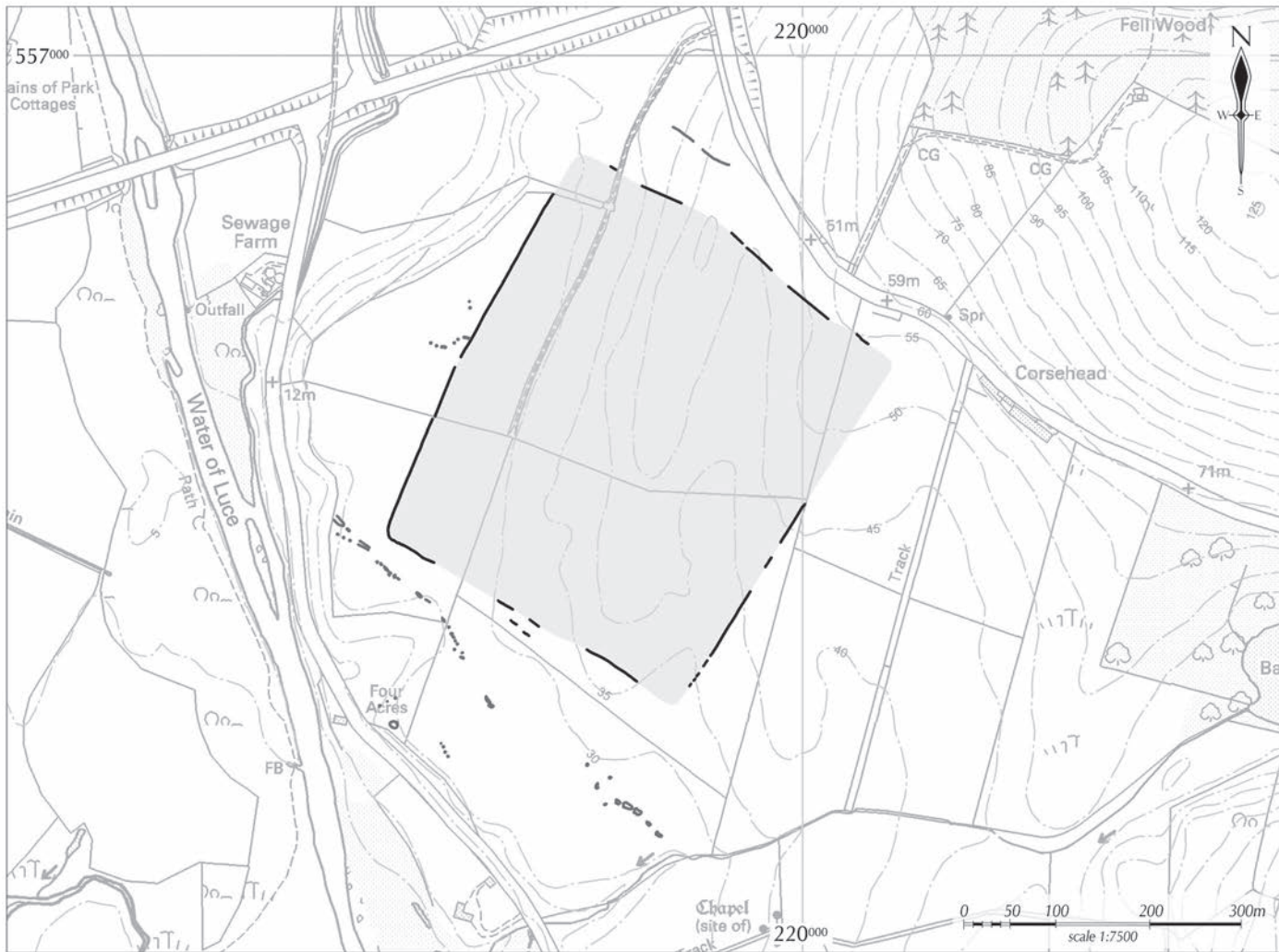


Illustration 138

Glenluce. The quarry pits of the Roman road run along the south-west side of the camp. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Glenluce (illus 20, 47 & 138)

NX 1985 5665 NX 15 NE 72

First recorded through cropmarks in 1992 by RCAHMS, the camp at Glenluce lies on sloping ground east of the Water of Luce, close to its confluence with the Solway Firth at Luce Sands. It lies immediately north of the Roman road from Glenlochar to Loch Ryan, evidenced

by the cropmarkings of quarry pits. The camp is slightly irregular in form, but measures about 465m from north-east to south-west by almost 400m transversely, enclosing 17.9ha (44 acres). An entrance gap protected by a *titulus* is visible in the south-west side.



Illustration 139

Gogar Green and Millburn Tower (probable) and other cropmarks in the area. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Gogar Green (illus 139)

(Millburn Tower II)

NT 1765 7175 NT 17 SE 24

First recorded from the air in 1980, together with the probable camp at Millburn Tower (Maxwell & Wilson 1987: 38–9), only stretches of two sides of this camp have been recorded as cropmarks immediately west of the Edinburgh city bypass. The air photographs show only some 175m of the WNW side and c 85m of the south. Maxwell noted that more of the camp was recorded by aerial photography (Rankov 1982: 340), but this could not be confirmed through the available images. Following excavations, the camp was recorded as measuring 300m from north to south by c 250m (Frere 1985a: 265), thereby

suggesting that some 7.5ha (18.5 acres) were enclosed. A possible entrance gap is visible in the cropmark of the WNW side.

Maxwell recorded that the ditch was extremely slight, just over 1m wide and 0.5m deep (Maxwell & Wilson 1987: 39), although it was deeper and wider with a vertical channel at the bottom on the north side. Three small sherds of Roman coarseware were found (Maxwell 1984a; Frere 1985a: 265). Most of the camp has probably been destroyed by the A720 Edinburgh city bypass and the modern Edinburgh Park development.

GAZETTEER: KNOWN ROMAN CAMPS



Illustration 140

Grassy Walls and Scone Park. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Grassy Walls (illus 46, 47 & 140)

(Grassy Well)

NO 1050 2800 NO 12 NW 8

The camp at Grassy Walls was first planned by Roy in 1771 (1793: Pl. XII), and was also recorded and planned, not as accurately, by the Rector of Perth Grammar School (J McOmie) in 1778 (Callender 1919: 141). However, by the 1850s, the Ordnance Survey were able to record only the site location on the 1st-edition map because the surrounding landscape had changed quite dramatically and the farm of Grassy Wells had vanished (Perthshire 1867: sheet lxxxvi). Callender noted some remains of the north part of the camp in Drumshogle Wood and Donald's Bank on the ground in 1917 (Callender 1919: 138ff); Crawford also noted the upstanding remains in Drumshogle Wood (1949: 64–7), having recorded the site from the air (1930: 276).

The camp lies on undulating ground on the east side of the River Tay, north of Perth, and across the river from the Roman fort of Bertha. The camp of **Scone Park** lies only 300m to the south. The northern part of the west side of the camp lies along the mound known as Donald's Bank, and from this point the ground drops away steeply to the river. The ground also drops away through Sheriffston Wood in the southern part of the camp.

Parts of all four sides are visible as cropmarks or earthworks, and the camp measures around 790m from north to south by about 700m transversely, enclosing 55.5ha (137 acres). Gates protected by *tituli* are visible in the centre of the north side and in the northern half of the east side; at both entrances the camp bows inwards. In Drumshogle Wood, the camp rampart survives as a low mound about 6m in width and up to 0.6m in height above an external ditch, which measures some 3m in width.

Crawford produced a map of the camp from the available evidence (1949: fig. 13), including a pronounced south-east corner, south of Sheriffston Wood. This was recorded as a cropmark on a photograph taken by Bradley in 1941 (1949: Pl. XI). A similar photograph was also taken by Bradley in 1943. Although the protruding corner is not stranger than the north-east corner at **Raedykes**, other similar marks in the same field raise questions over the Roman attribution of the feature (and it is not included in illus 140).

There are no recorded excavations in the camp, but a stray Roman coin, probably Trajanic, was recovered from the interior in 1907 (Macdonald 1918: 232–3).

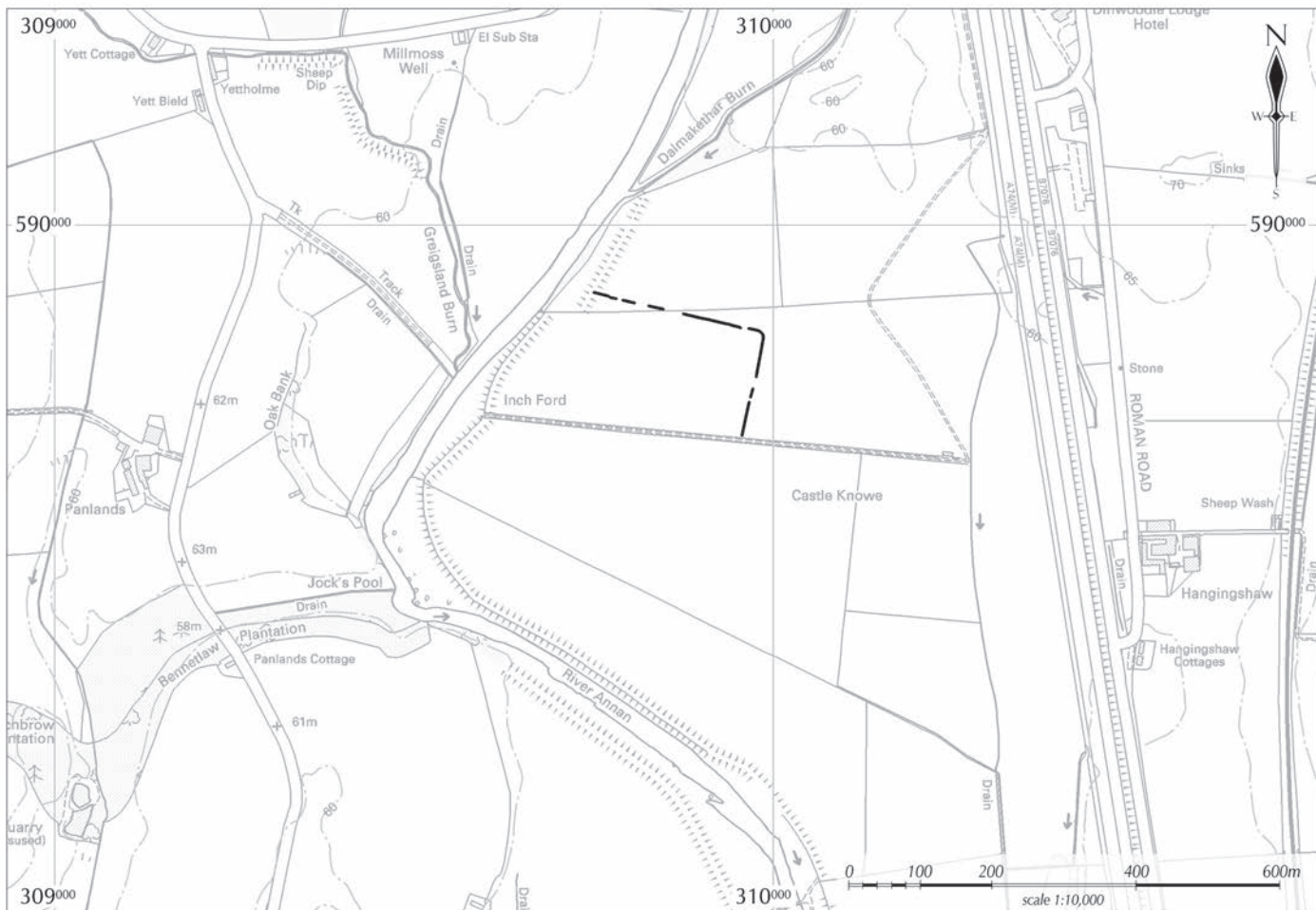


Illustration 141

Hangingshaw. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Hangingshaw (illus 141)

(Dinwoodie; Applegarth)

NY 0979 8975 NY 08 NE 12

Discovered in 1969 by St Joseph from the air on level ground on the east side of a bend in the River Annan, the camp at Hangingshaw lies close to the Annandale Roman road. Parts of two sides have been recorded through cropmarks: at least 245m of the NNE side together with

a rounded eastern angle and 150m of the ESE side. Given the position of the river, the camp is unlikely to measure more than about 250m from WNW to ESE. No entrances are known.

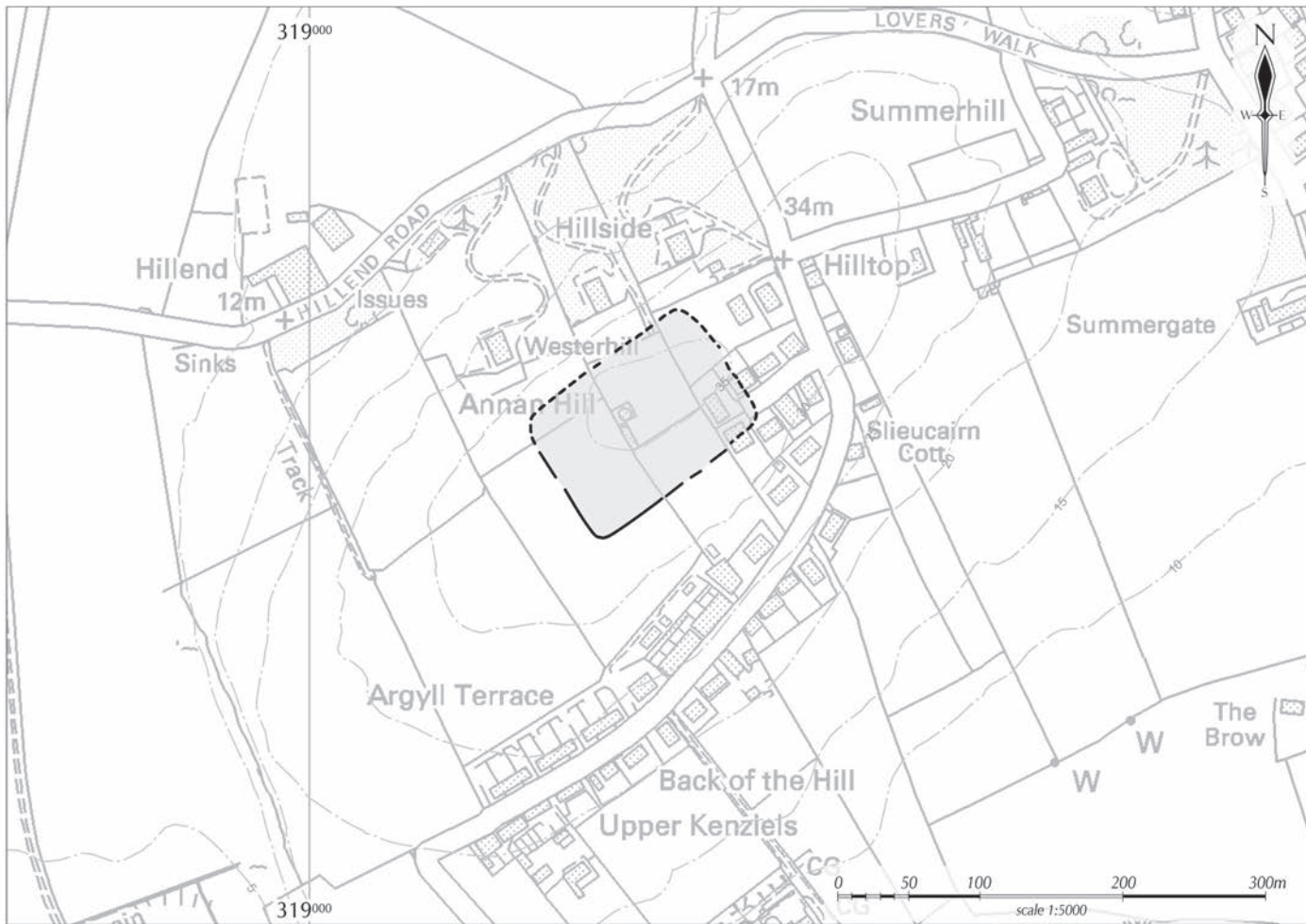


Illustration 142

Hillside Annan. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Hillside Annan (illus 47 & 142)
(Annan Hill)

NY 1925 6547 NY 16 NE 6

First recorded in 1958 by St Joseph as cropmarks, this camp lies on the summit of a small hill to the east of the River Annan, close to its confluence with the Solway Firth, just over 1km east of the camp at **Annanfoot**. Stretches of two sides of the camp have been recorded, the remainder having been located during excavations (illustration 142 takes into account these results (Keppie 1988)). It is believed to measure 146m from north-east to south-west by about 100m transversely, enclosing about 1.4ha (3.6 acres). An entrance gap in the south-west side is visible on the air photographs, and a further gap on the north-east side has been identified through

excavation. Trenches on the ditch in 1966 recorded that it was about 1.5m wide and 0.9m deep (Gibbs 1966), but later excavations revealed that it was up to 2.2m wide and 1.1m deep in places with a counterscarp bank some 1.3m wide and up to 0.3m high (Keppie 1988: 15–16). A further 18m of V-shaped ditch was recovered during a watching brief in 2002; this measured around 1.75m in width and 0.6m in depth (Brann 2002: 5; 2003). Light cobbling and post-holes/post-hole depressions were identified in the interior of the camp (Keppie 1988: 16; Brann 2003). A Roman glass-paste melon bead was recorded, unstratified, from the 1985 excavations (Keppie 1988: 16).

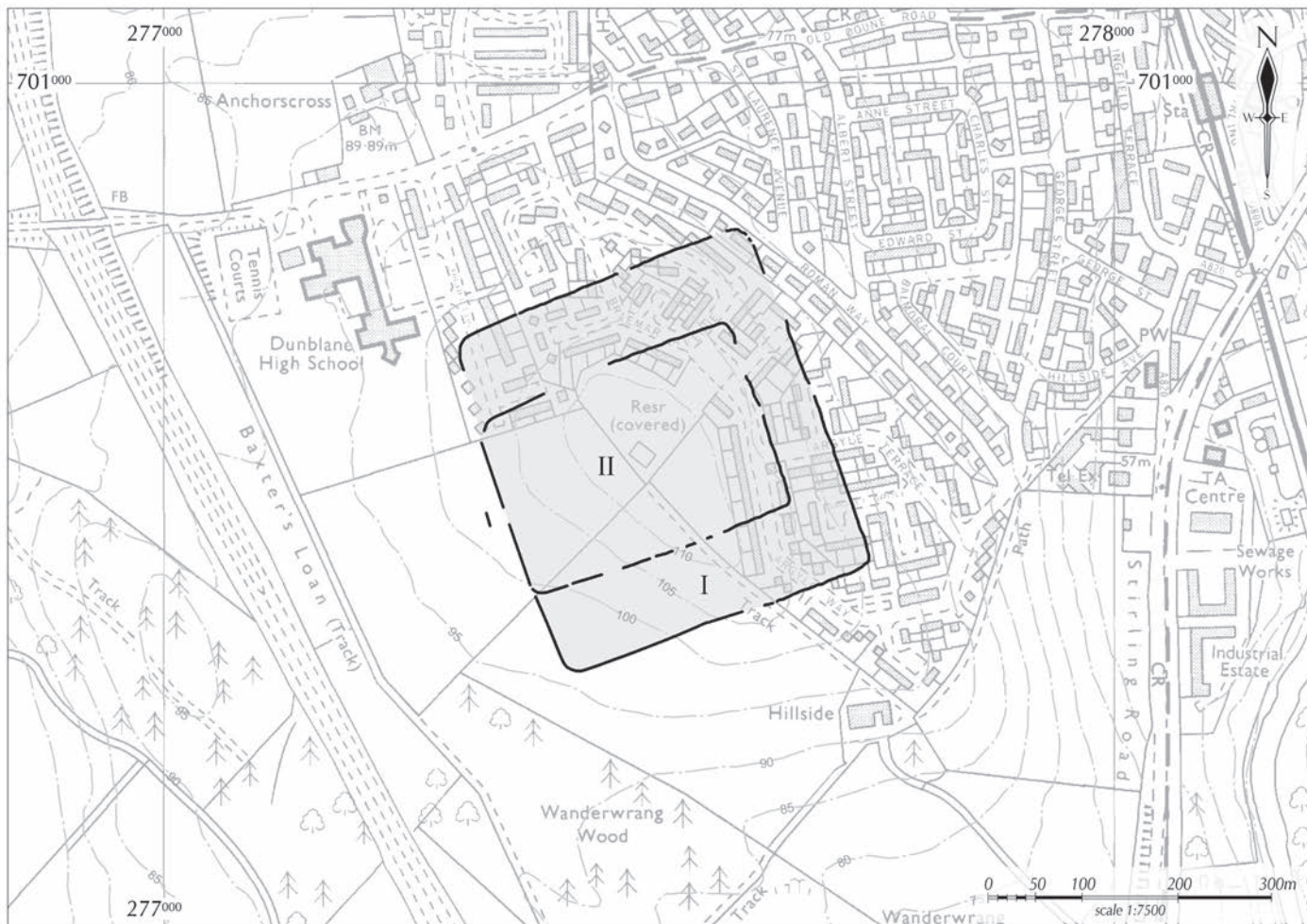


Illustration 143

Hillside Dunblane I-II. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Hillside Dunblane (illus 47 & 143)
(Hillside Farm)

Hillside Dunblane I: NN 7755 0059
NN 70 SE 11

Hillside Dunblane II: NN 775 005
NN 70 SE 11

Discovered in 1945 by St Joseph from the air (1951b), the majority of the two camps at Dunblane is now covered by housing. They are sited on the crest of a hill about 500m west of the Allan Water. Camp I, the outer and larger of the two, measures 376m from NNW to SSE by 345m transversely and enclosed 12.9ha (almost 32 acres). Probable entrance gaps have been visible in the cropmark record on all four sides; that on the WSW side is protected by a *titulus*. The second camp sits within the first, sharing part of its WSW side (and entrance with *titulus*). This camp measured 289m from ENE to WSW by 198m and enclosed 5.9ha (14.5 acres). St Joseph

recorded that this camp possessed a *titulus* on its north-east side (1951b), but this could not be confirmed on the available air photographs at Cambridge and RCAHMS, nor was it located through trenching by Robertson (1969: 35).

Excavations in the 1960s recorded that the ditch of both camps was rock-cut in places, and that of camp I measured about 0.9m deep and 1.8m wide. Later excavations recorded that the ditch on the WSW of camp I was V-shaped, and measured up to 2m in width and 0.6m in depth. The entrance on this side was probably originally 12m wide but was reduced to 5m in its second phase. The

titulus was set 10m from the entrance and measured 3.2m in length, 1.8m in width and 0.34m in depth (Mackenzie 1995; Keppie 1996a: 398).

Robertson proposed contemporary occupation of the two camps (1969: 36), but the suggestion of the later excavations that the entrance on the west side was reduced in its second phase of use argues against this theory (Mackenzie 1995; Keppie 1996a: 398). A possible

post-hole was recorded close to the south-east entrance of camp II (Robertson 1969: 36). The NNW and SSE ditches of this camp do not appear to completely join up with the WSW side of camp I, and this was confirmed by excavation (Robertson 1969: 36). While this may represent some of the space left by the presumably upstanding rampart of camp I, it is curious that the ditches do not join.

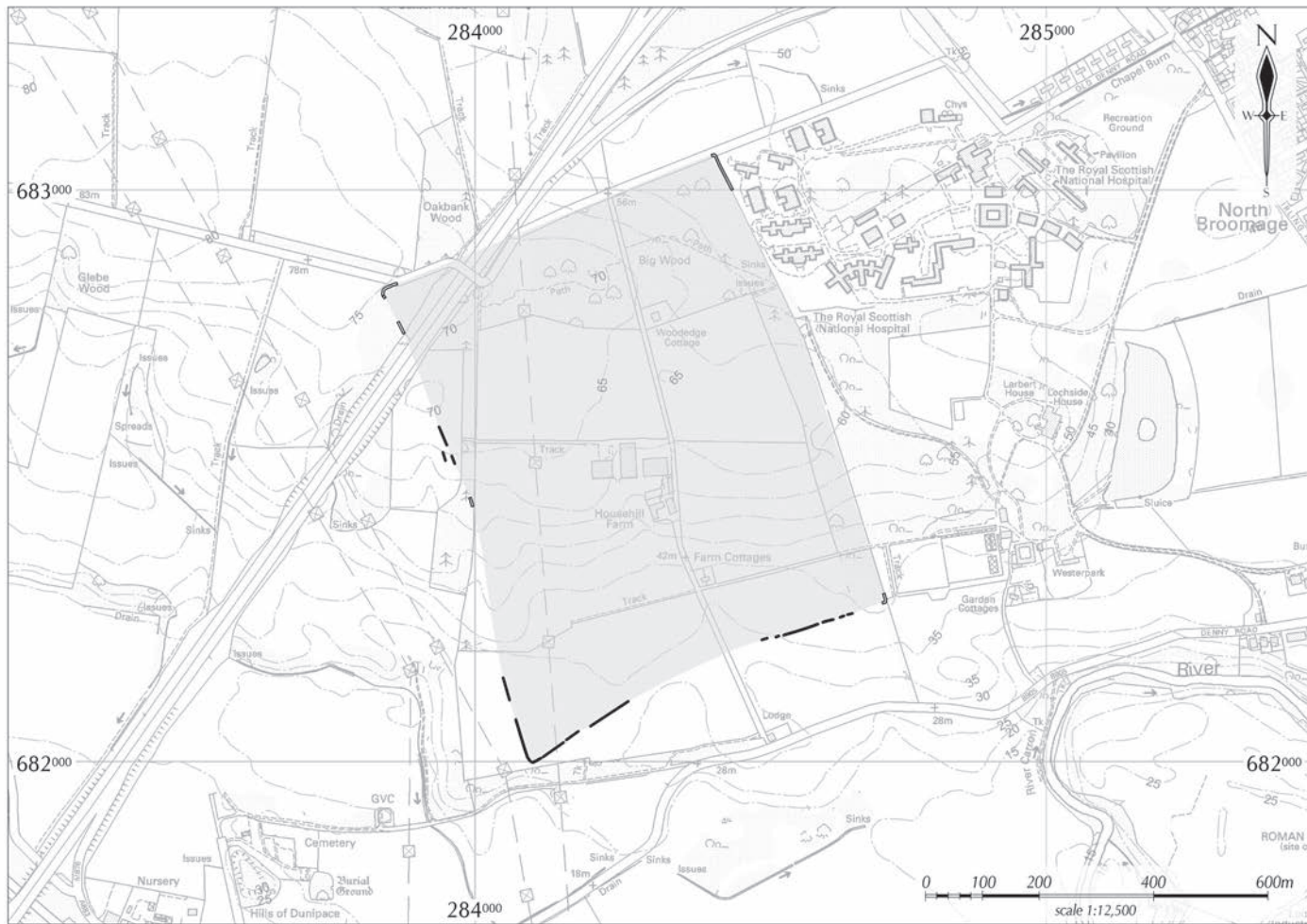


Illustration 144

Househill Dunipace. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Househill Dunipace (illus 47 & 144)
(Dunipace)

NS 8430 8252 NS 88 SW 9

The large camp at Househill Dunipace lies on undulating ground on the north side of the River Carron, some 600m north-west of the concentration of camps at **Lochlands**, just north of the Antonine Wall. Part of the camp survives in earthwork form, with further stretches of two sides recorded as cropmarks. The north-western corner was first surveyed as 'indeterminate remains' by RCAHMS in 1954 (RCAHMS 1963: 446 No. 580). Cropmarks recorded during aerial survey in the 1980s led to the various pieces being put together and interpreted as a camp by Maxwell in 1988 (Frere 1989: 312). The camp measures just over 800m from NNW to SSE by almost 650m transversely and enclosed around

54ha (134 acres). An entrance gap with *titulus* is visible in the cropmarks of the WSW side. Parts of the north-west, north-east and south-east corners survive as slight earthworks in woodland, along with a short stretch of the WSW side (Frere 1989: 271; Frere 1991: 230). The west corner rampart survives to a height of 0.9m and is spread 5.4m wide (RCAHMS 1963: 446). Its original width may have been some 5m set on a clay footing (Aitchison 1981). Excavations on the ditch by Maxwell & St Joseph recorded that it measured up to 4.5m in width and 1.5m in depth (Frere 1988: 427).

Owing to its large size, this camp is usually regarded as Severan in date (Maxwell 1991: 111–12), although

small trial trenches on the site have not produced any dating evidence. However, if the camp was struck when the nearby Flavian and Antonine forts at Camelon were

occupied, then it is curious that it was not located south of the river on the **Lochlands** promontory, closer to the fort.

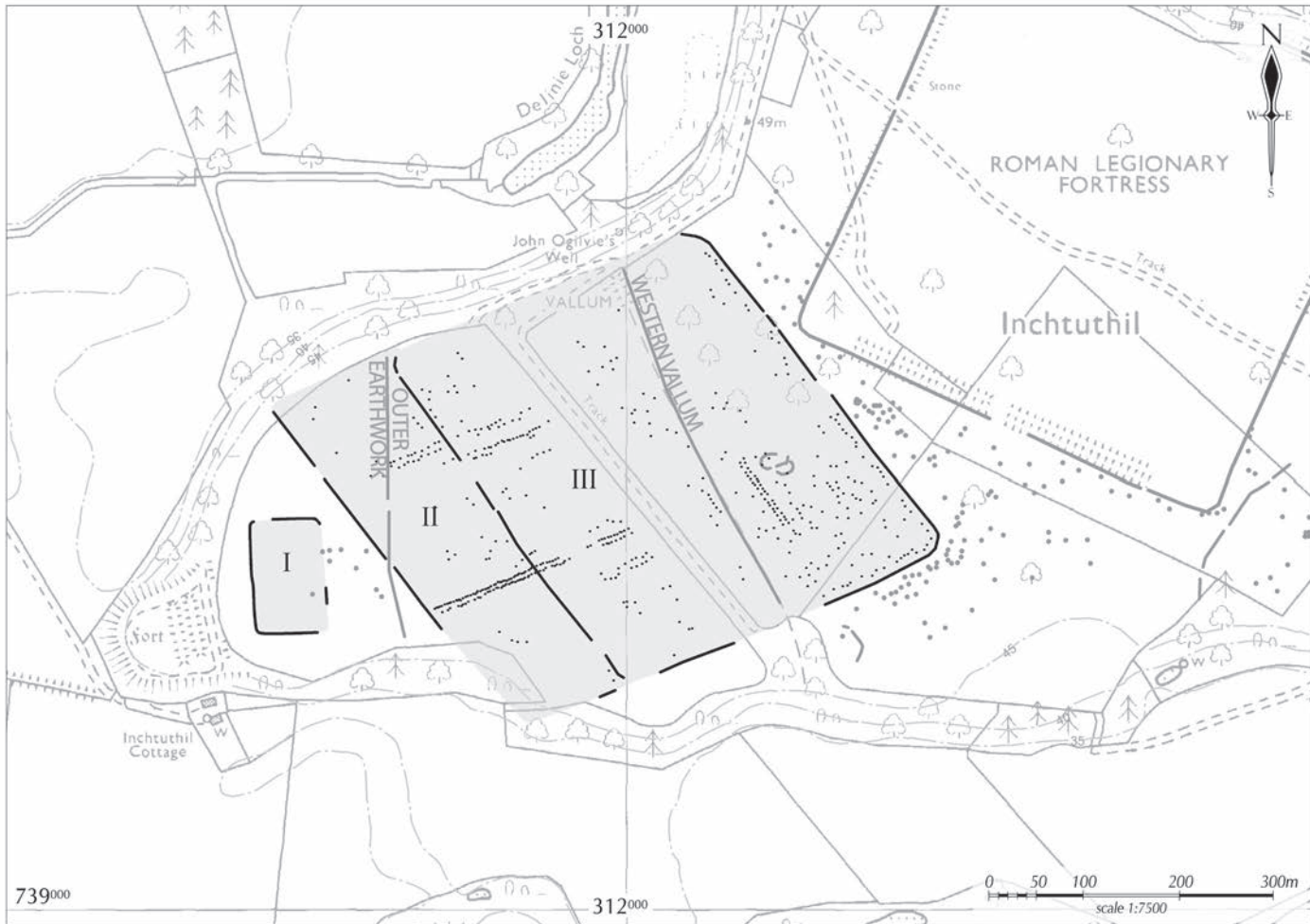


Illustration 145

Inchtuthil I-III and selected other cropmarks and earthworks in the area including the Roman fortress, the 'western vallum', the 'outer masking earthwork' and numerous pits across the plateau. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Inchtuthil (illus 52, 47, 145 & 146)
(Inchtuthill; Inchtuthil labour camp)

Inchtuthil I: NO 1165 3934 *Inchtuthil III:* NO 1198 3945
NO 13 NW 5.2 NO 13 NW 5.1

Inchtuthil II: NO 1198 3945
NO 13 NW 5.1

The Roman fortress and camps at Inchtuthil are situated on a plateau on the north side of the River Tay. The forts at Cargill lie some 4.5km to the ESE and the

camp at **Steeds Stalls** some 3km to the NNW. The Cleaven Dyke, long believed to be a Roman earthwork but now recognised as a Neolithic cursus monu-

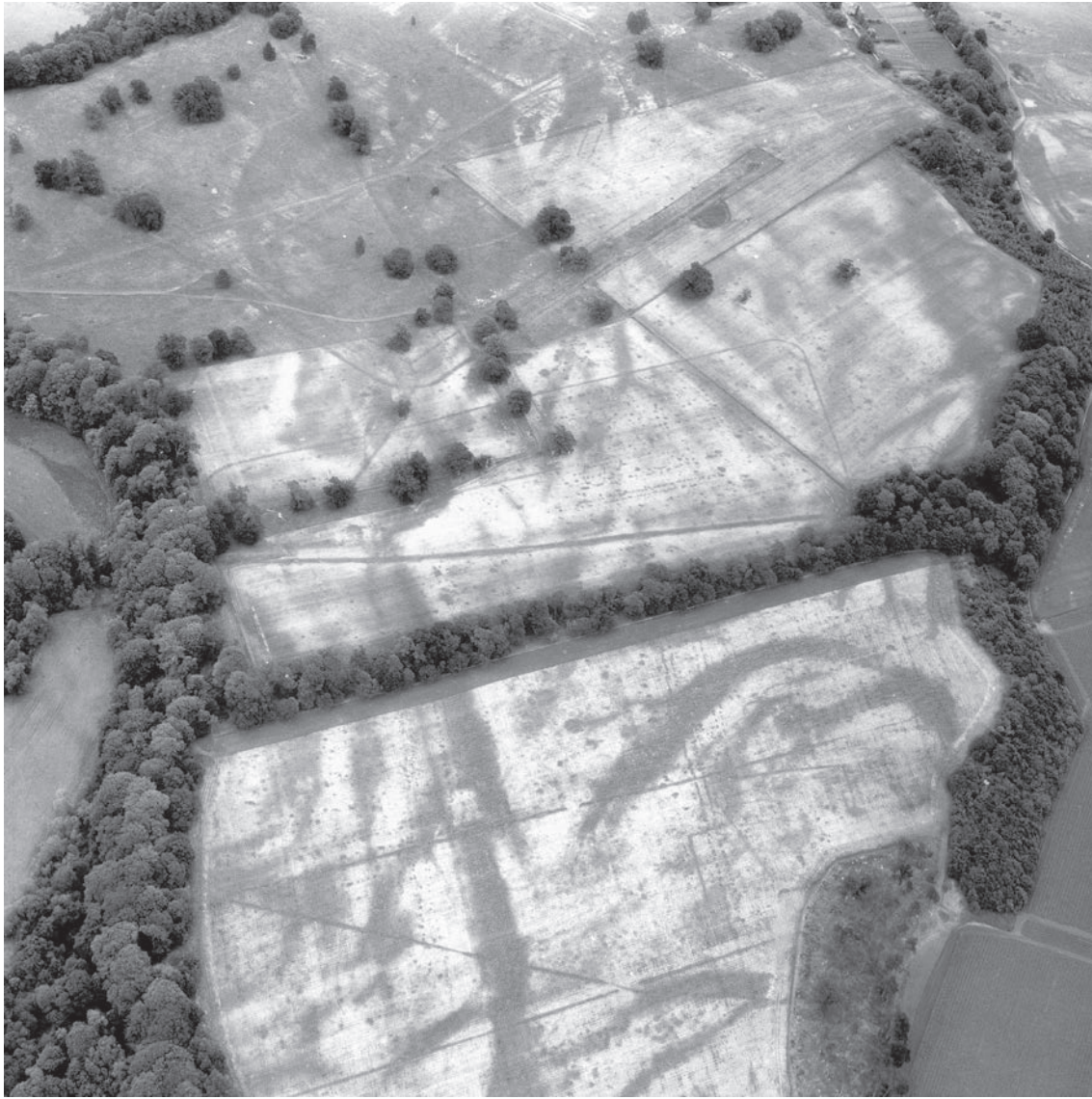


Illustration 146

Aerial view of Inchtuthil II–III with adjacent fortress, showing the 'western vallum' and 'outer masking earthwork', taken from the west in 1977.
 © Crown copyright: RCAHMS. SC958608. Licensor www.rcahms.gov.uk.

ment, lies about 4km to the east (Barclay & Maxwell 1998: 13–22).

The existence of the fortress on the plateau has long been known (eg, Roy 1793: Pl. XVIII), but the camps (II and III) known only through cropmarks on air photographs from the 1950s (St Joseph 1958: 91) (although photographs taken from 1945 onwards reveal elements of the camps (Pitts & St Joseph 1985: 223)). Camp I, situated at the western end of the plateau, was also recorded through cropmarks in the 1960s (St Joseph 1965: 82–3). The camps have more recently received attention, predominantly owing to the pits visible in the interior of 'labour' camps II and III (eg Hanson 1978a: 142; Maxwell

1981: 52–3; Maxwell 1982a; Wilson 1984: 55–7; Pitts & St Joseph 1985: 223–44; RCAHMS 1994: 77–82).

Camp I lies at the far west end of the plateau, immediately east of a promontory fort that has been proposed as post-Roman in date (Pitts & St Joseph 1985: 248). It has received little attention in comparison with the other two camps to the east, and it receives fairly brief mention in the *Inchtuthil* volume (Pitts & St Joseph 1985: 243, figs. 1 & 2). It measures about 119m from north to south by 75m transversely, enclosing 0.9ha (2.2 acres). No entrances are visible although only part of the east side has been recorded from the air (and recent geophysical survey failed to locate this east side, Hoffmann & Woolliscroft

pers comm). Enough survives of the north and south ends to indicate that these had no central entrance gap.

Excavations on the ditch of the camp have been recorded in two sources but with differing dimensions: in a summary article, St Joseph noted that the ditch was 'barely 4 ft wide by 2 ft deep' (1965, 83), but in the *Inchtuthil* monograph he records that the ditch was 'only 5 ft wide and 2 ft. 10 in. deep' (Pitts & St Joseph 1985: 225). It is unclear how many trenches were placed, with just a single section of the west side drawn (Pitts & St Joseph 1985: fig 70). Thus it appears that the camp ditch measured 1.2–1.5m in width and 0.6–0.86m in depth.

Camps II and III are the so-called 'labour camps' situated immediately west of the Roman fortress. Camp II occupies the space between camp I and the fortress, and camp III is a reduction of camp II, represented by an additional ditch on its south-west side. Camp II is almost a parallelogram in form, measuring 480m from WSW to ENE by 425m transversely, enclosing 19.8ha (49 acres). Camp III reduces the WSW to ENE dimension to 355m, with the area enclosed 14.8ha (36.6 acres). A plantation bisects the camps from north-west to south-east, and parts of the NNW side and south corner are also under trees. St Joseph placed trenches on the NNW side to determine its course through the plantation. These trenches recorded that the ditch averaged 2.7m in width and 0.76m in depth (Pitts & St Joseph 1985: 225, fig 69). Trenches determined the locations of entrance gaps in the NNW and SSE sides; an entrance gap is clearly visible close to the centre of the ENE side, and gaps are visible close to the centres of the WSW sides of both camps II and III. Further trenches were excavated on the ENE and the WSW sides (Pitts & St Joseph 1985: fig 70).

Numerous pits are visible within and outwith these camps. A series of pits runs parallel to the ENE side and the eastern part of the SSE side, and these have been interpreted as possible ovens. Rows of pits are also visible in the south-east part of the camps, and in the western part, west of the plantation strip. Nine pits in this latter area were excavated and interpreted as rubbish pits related to rows of tents. These have been used ingenuously to interpret the potential garrisons of the camps (Maxwell 1982a; Frere 1985c; Jones 2006).

Two other features are visible crossing camps II and III: the 'Outer Masking Earthwork' and the 'Western Vallum' (illus 146). The former is a line of ditch which seemingly demarcates the western part of the plateau, running almost north to south from the west corner of camp III through the entrance gap on the WSW side of camp II, at which point it turns slightly to the SSE. A trench through this feature revealed a V-shaped ditch measuring 1.93m in width and 0.63m in depth. Pitts & St Joseph believed that this was contemporary with the occupation of camp III (1985: 244–5), but RCAHMS preferred to see it as a further feature associated with the 'Western Vallum' (RCAHMS 1994: 81–2). This is an earthwork running NNW to SSE with a change of alignment part-way along, running through the eastern part of camps II and III, with the rampart overlying the ditch of the SSE side of the camps, and accompanying ditch running through the entrance gap on this side (Pitts & St Joseph 1985: 245). This feature was visible in Roy's day (1793: Pl. XVIII) and is still visible as a slight earthwork. The excavated section indicated that the rampart was 0.68m in height (made of turf cheeks on a gravel core) and 6.7m in width. The ditch on the west side was V-shaped, 5.18m in width and 1.68m in depth. It is therefore later than the occupation of camps II and III (Pitts & St Joseph 1985: 245, fig 3).

There are no entrances visible in either earthwork, suggesting that the intention was to close off the plateau, either in succession (the 'Outer Masking Earthwork' being built before the 'Western Vallum') or contemporaneously. Some of the pits spread across the plateau may relate to occupation within these earthworks, which may demarcate areas for settlement and other forms of activity. Whichever scenario was the case, it is also probable that camp I predated the construction of either earthwork, because these would have blocked access from this camp to the rest of the plateau. Frere commented that the camp had the appearance of a late arrival encamped on the only available ground, possibly for a separate auxiliary force, perhaps an *ala*. He dismissed the suggestion that the camp could represent a reconnaissance force on the plateau (Frere 1985c: 243). However, it is sited on the highest point, the best location for survey, and this proposal remains entirely plausible (see above, section 7e).

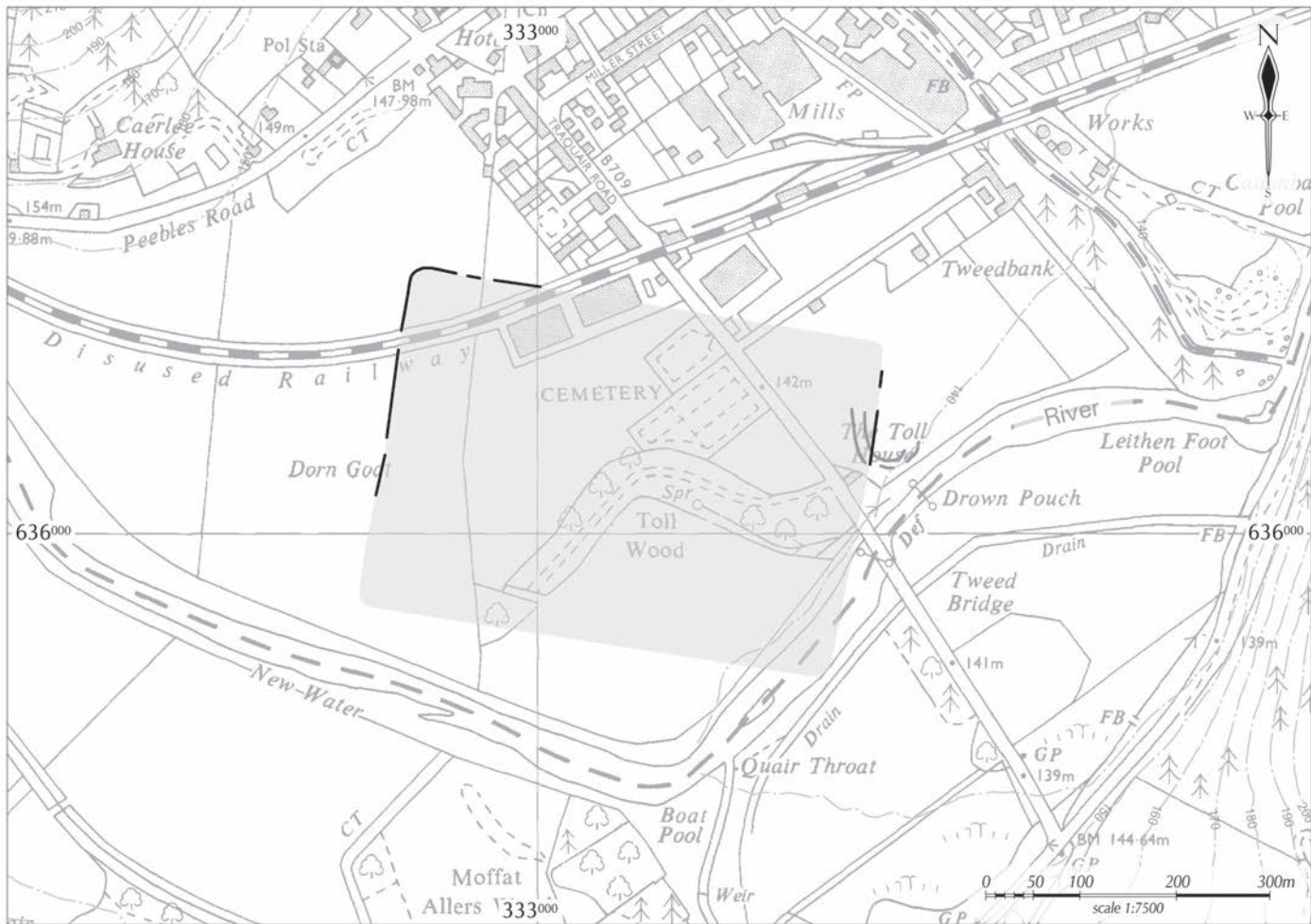


Illustration 147

Innerleithen and other cropmarks in the area. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Innerleithen (illus 47 & 147)

NT 3290 3612 NT 33 NW 21

This camp, lying on a terrace on the north bank of the River Tweed and the south side of Innerleithen, was first observed through cropmarks in 1949 by St Joseph from the air (1951a: 57). Parts of three sides have been recorded, and it measured 506m from west to east by at least 245m. There is an obvious break in the west side, presumably for an entrance. If this is in the centre of the side, then the north

to south measurement could be up to 385m (assuming that the course of the Tweed may have lain further to the south in antiquity) and the camp could enclose some 19.7ha (49.7 acres). A probable double-ditched settlement intersects its eastern side. Evaluation and watching briefs at the cemetery within the camp recorded no internal features (Hastie 2002; 2003).

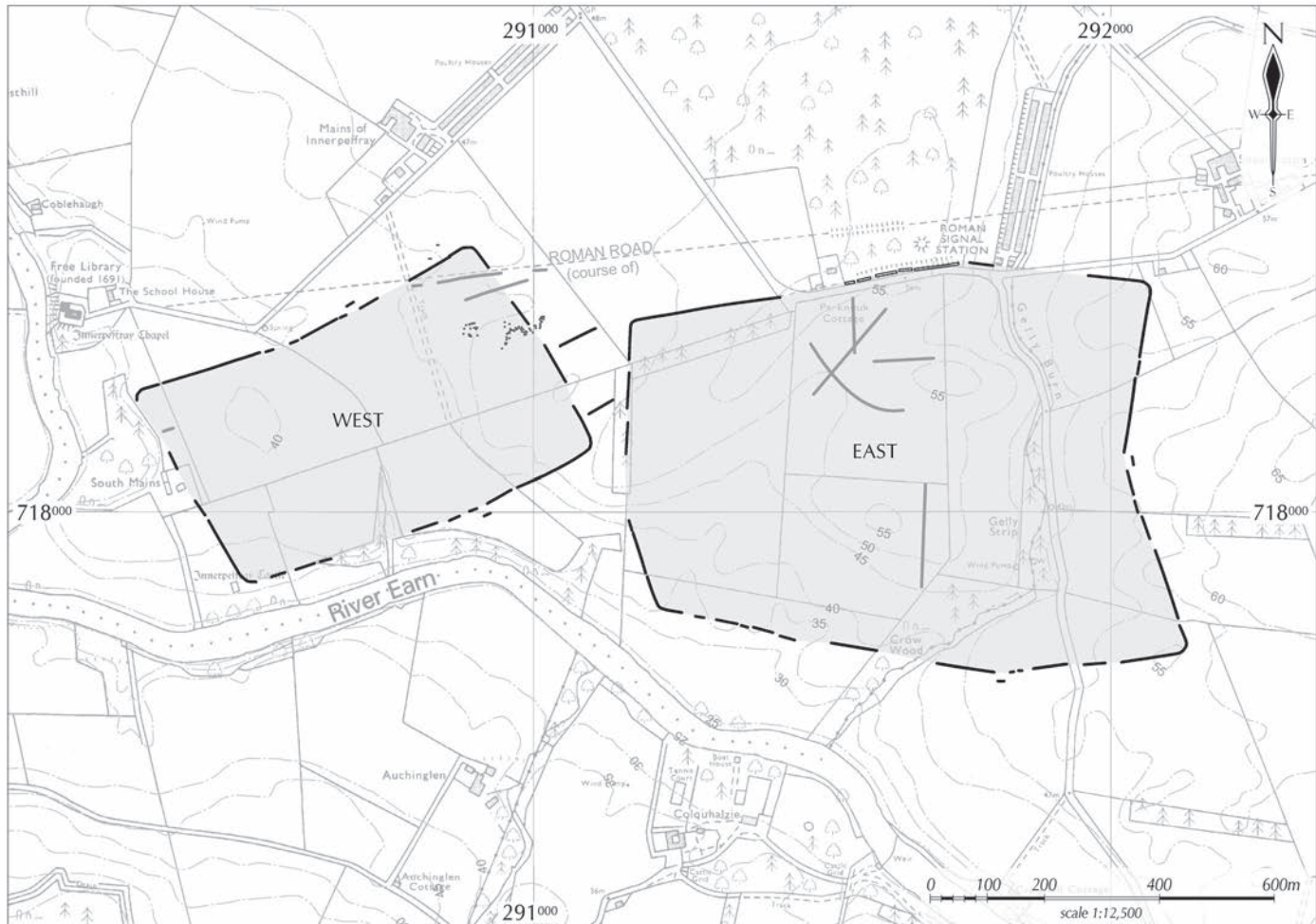


Illustration 148

Innerpefferay East and West and other cropmarks in the area. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Innerpefferay (illus 47 & 148)

(Strageath; Parkneuk Cottage)

Innerpefferay East: NN 9156 1806
NN 91 NW 14

Innerpefferay West: NN 9075 1820
NN 91 NW 25

The two camps at Innerpefferay were recorded from the air by St Joseph in 1945 (St Joseph 1951a: 63), but may have been noted earlier by Horsley, who drew a large earthwork entitled 'Innerpefferay camp' with a smaller camp attached to its west side (1732: opp. 44). These may well have represented the remains of the two camps now known as Innerpefferay East and West, and both now recorded through cropmarks.

The two camps lie on gently sloping ground above the River Earn, across from the fort and camps at **Strageath**. The presumed Gask Roman road runs to the north of the east camp, where it is accompanied by a watchtower

(Parkneuk), and cuts through the northern corner of the west camp.

The east camp is the larger of the two and irregular in form, measuring about 860m from east to west by about 710m (although is up to 910m in length in places and much narrower at the west end than the east); it enclosed almost 56ha (138 acres). Entrance gaps with *tituli* are visible in the centre of the east side and in the eastern part of the south side. Part of the northern rampart and ditch of the camp is visible as an upstanding earthwork in woodland. St Joseph excavated a section here in 1966 and recorded that the ditch was about 3.6m in width

and nearly 1.2m in depth with a drainage channel in the bottom. The upstanding rampart was composed of clean, fresh upcast material (RCAHMS St Joseph Collection: Notebook 4).

Innerpeffray West lies immediately to the west and is also slightly irregular in form, measuring about 660m from WSW to ENE by 400m, enclosing about 25.5ha (63 acres). Entrance gaps with *tituli* are visible on the eastern part of the SSE and NNW sides. An annexe is visible on the east side of the camp, almost intersecting with Innerpeffray East; this measures at least 92m by 125m and encloses a minimum area of 1.14ha (2.8 acres).

St Joseph rather ambiguously referred to an additional two camps at Innerpeffray, one within the camp (unspecified), attached to the south rampart, and another attached outside the east rampart (1958:90). The assumption has been that he was referring to Innerpeffray East, as he referred to the 'large camp', although this did follow a reference to Innerpeffray West, which has an annexe on its eastern side. No additional 'camps' were recorded in association with the East camp by the Ordnance Survey in 1967 (OS Recorder 1967), and none has been recorded in the literature since. St Joseph's unpublished plans of the East camp do not illustrate the location of these features (RCAHMS DC 37391). Neither is visible on the aerial

photographs of the east camp, and it therefore appears that St Joseph must have been referring to the camp at Innerpeffray West. Though there are a number of linear cropmarks within the East camp and also adjacent to its south-east corner, these do not appear to be Roman and have the appearance of more recent field boundaries. At Innerpeffray West, as well as the annexe attached to the ENE side, there are a number of linear cropmarks around the ruined Innerpeffray Castle in its south corner, which may be the remains of garden features. St Joseph restated the presence of two annexes on one of the Innerpeffray camps in 1965, and the west therefore seems the more likely candidate (St Joseph 1965: 81n).

Innerpeffray West lies astride the Roman road, indicated by a linear cropmark which continues the line through Innerpeffray Wood, and cuts across its northern corner. To the south of this line lies a further linear cropmark and some possible quarry pits. The relationship between the road and camp was tested by excavation in 2007, demonstrating that the road was the later of the two (Woolliscroft 2007). While it has not been established beyond doubt that the road recorded is Roman in date (it could represent the route of the medieval road in this area), the findings shed light on the potential dating of the western camp (see Chapter 10).

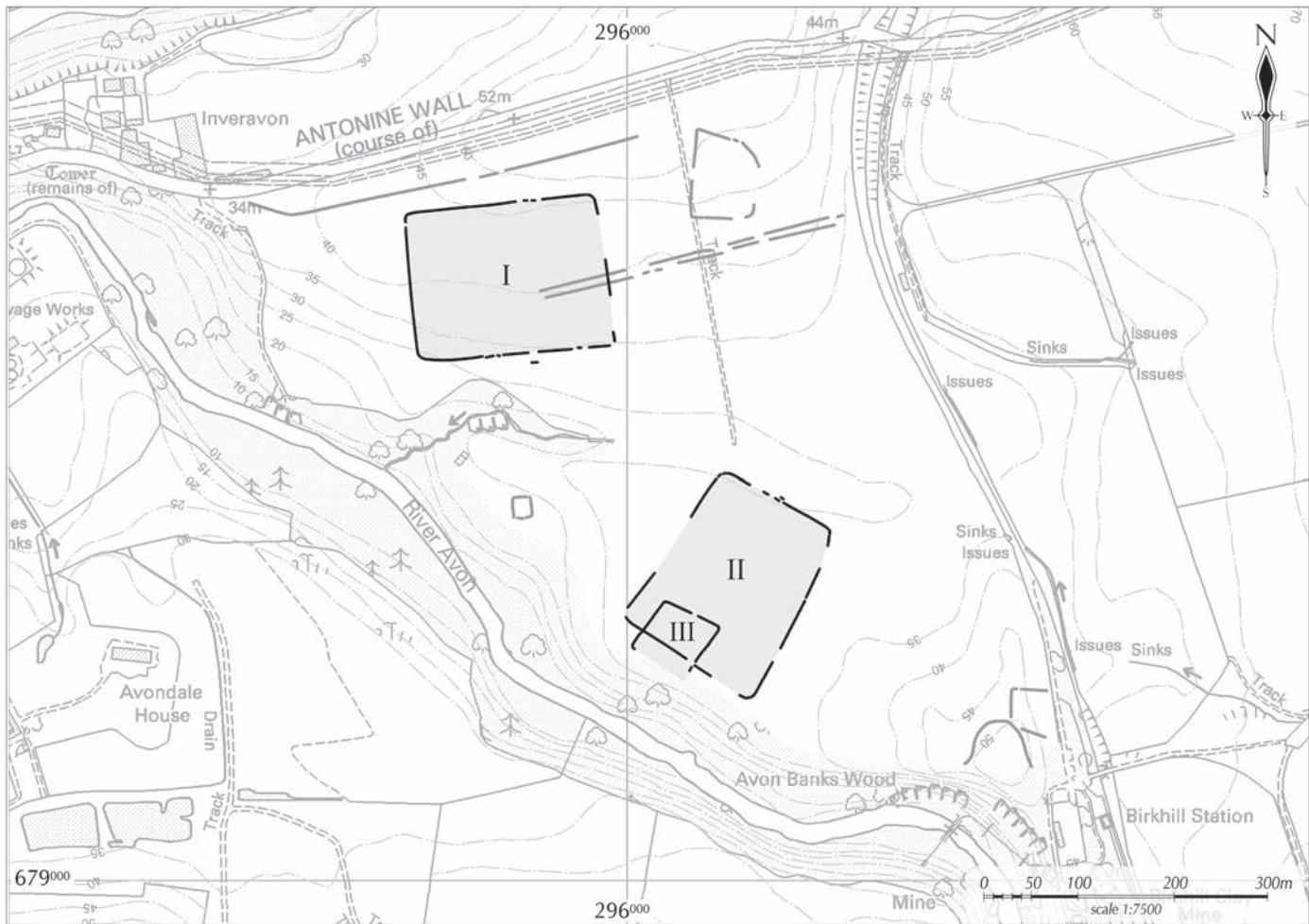


Illustration 149

Inveravon I-III, the Antonine Wall and other cropmarks. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Inveravon (illus 47 & 149)

Inveravon I: NS 9586 7963 *Inveravon III:* NS 9611 7933
 NS 97 NE 14 NS 97 NE 23
Inveravon II: NS 9611 7933
 NS 97 NE 23

The three camps at Inveravon lie in an arable field on land that slopes markedly from north to south before the steep descent to the River Avon. The Antonine Wall runs through the north side of the field, adjacent to a nearby road. All three camps were recorded from the air by St Joseph: camp I in 1955 (St Joseph 1958: 89); and the overlapping camps II and III in the early 1960s (St Joseph 1965: 80). Other cropmarks in the field include rectilinear enclosures, a ring-ditch, a trackway, and cultivation remains.

Camp I lies just over 100m to the south of the Antonine Wall. It was originally recorded as square in form (St Joseph 1965: 80), but a reappraisal of the air photographs suggests

that it is rectangular, measuring almost 210m from ENE to WSW by 160m transversely, enclosing an area of about 3.3ha (just over 8 acres). Excavations were undertaken in 1983 in advance of the laying of gas pipelines, and these recorded that the ditch on the east side was shallow and flat-bottomed with sloping sides, about 1m wide and 0.55m deep. A stone-packed post-hole and traces of a second were recorded in the interior of the camp (Keppie & Walker 1990: 143).

The north side of the camp could not be located during these excavations, although it was later visible from the air (and was recorded by RCAHMS).

Entrance gaps are visible in the NNW and SSE sides, towards the NNE end, that on the SSE being protected by a *titulus*. This suggests that the camp may have faced east rather than north directly towards the Wall.

Camp II lies some 200m south-east of camp I, on slightly flatter ground. Camp III overlaps its south-west side, close to the west angle, but the relationship between the two camps is unknown, and the south-west side of camp III is only partially recorded as it reaches the edge of the field and Avon Banks Wood. Camp II measures about 195m from north-east to south-west by 153m transversely, enclosing an area of about 2.9ha (7 acres). There is an entrance gap in the centre of the north-east side, protected by a possible *titulus*; there are further

possible entrance gaps in the north-west and south-east sides.

Camp III is much smaller than its neighbours, measuring 65m from north-west to south-east by about 63m transversely, enclosing some 0.4ha (1 acre). There is an entrance gap in the centre of the north-east side, and, curiously, the camp intersects the south-west side of camp II rather than utilise its perimeter as a fourth side (although the relationship between the two is unknown).

Field walking in the field near the camps in 1995 yielded various fragments of pottery, glass and tile, some of which may be Roman in origin (Dunwell & Ralston 1995: 12).

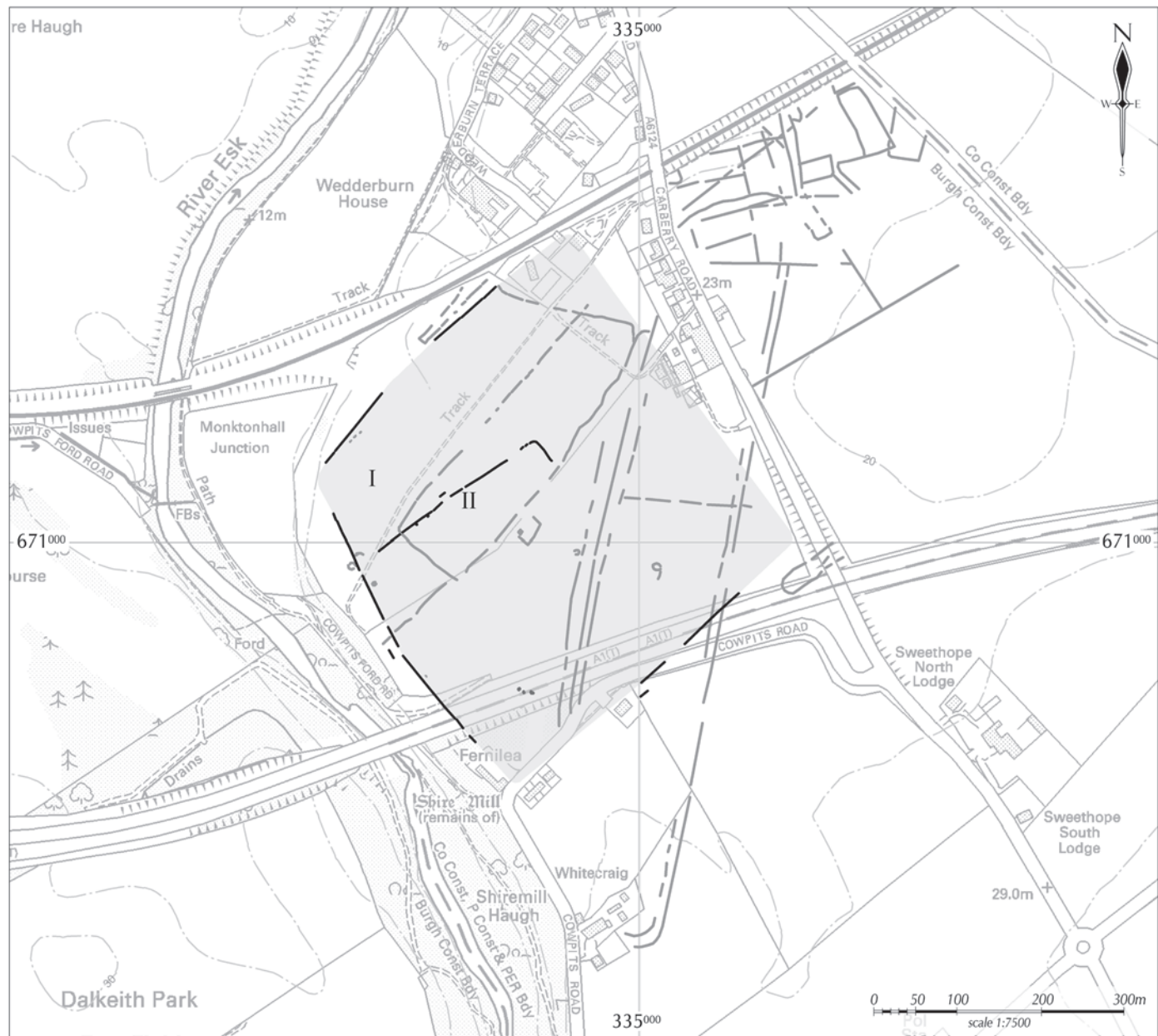


Illustration 150

Inveresk I-II and other cropmarks in the area including a probable Neolithic cursus and part of a field system. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Inveresk (illus 47 & 150)

(Monktonhall; Howe Mire)

*Inveresk I: NT 3485 7106
NT 37 SW 33*

*Inveresk II: NT 3485 7095
NT 37 SW 183*

The camps at Inveresk lie on the east side of the River Esk at Musselburgh, south-east of the Antonine fort which sits on a high plateau in a meander of the river. A

vicus sits to the east of the fort and other features in the area include a field system, a triple-ditched feature and an unusual structure interpreted as a possible amphitheatre

(Neighbour 2002a), as well as monuments of other periods (a probable Neolithic cursus monument and a possible long cist cemetery).

Both camps were recorded as cropmarks by St Joseph in the 1960s (1965: 80; 1969: 107–8). Camp II, the smaller of the two, sits within camp I and probably utilised part of its perimeter. Parts of three sides of camp I are known, demonstrating that it enclosed around 460m from north-west to south-east by at least 350m transversely; the location of the north-east side is unknown. It therefore enclosed at least 16.3ha (40 acres) and possibly close to 22ha (54 acres). Entrance gaps protected by *tituli* are visible in the south-west and south-east sides.

Various excavations have taken place on the camps and other features in the vicinity. In 1966, St Joseph excavated on the north-west side and recorded a large V-shaped ditch, 1.75m deep and 3m wide filled with silt and large stones (RCAHMS St Joseph Collection: Notebook 4). Further excavations in 1981 recorded slightly smaller dimensions, along with a small V-shaped ditch across the causeway of the gate on the south-east side, possibly indicating a secondary use (see Inveresk II (Rankov 1982: 340; RCAHMS St Joseph Collection: Notebook 8)). Hanson excavated on the south-west and south-east sides in the mid-1980s in advance of road construction, recording that the ditch was V-shaped, up to 1m deep and 2–3m wide; one section produced a fragment of Antonine samian. He suggested that the ditches may have been deliberately backfilled on the basis of the gravel in-fill (Hanson 2002: 53). Later excavations by Cook on the north-west side of Inveresk I recorded a section of that camp and two other ditches which he originally interpreted as possible camps (2002a: 66–8) but subsequently suggested that not all may relate to the Roman occupation (2005). Given that the field system

produced V-shaped ditches with apparent ‘ankle-breaker’ slots, the interpretation of features in this area as being part of temporary camps must be treated with caution.

In addition to sections of ditch, Hanson’s excavations also recorded five probable ‘dumb-bell-shaped’ ovens, up to 3m long and 1.5m wide, containing charcoal and carbonised grain (Hanson 2002: 53–5). Cook’s excavations revealed a further possible field oven (‘a bipartite pit filled with ash and charcoal’) close to the north-west side of the camp and cut by a later ditch. This produced radiocarbon dates of the late 1st and early 2nd century AD (Cook 2005: 153).

A series of pits is also visible on the air photographs close to the west part of the north-west side. It is possible that these pits represent further remains of ovens.

Some 250m of the north-west side of camp II are known, with a central entrance gap and *titulus*, together with a rounded corner angle and short stretch of the adjacent north-east side. St Joseph excavated eight trenches to establish the line of the ditch and gate on this camp in 1967, and noted that it had a small V-shaped ditch, 0.75m deep and 1.7m wide (St Joseph 1969: 108). The gate was 10.4m wide with the *titulus* ditch set some 8m from the entrance (RCAHMS St Joseph Collection: Notebook 4). The ditch of the *titulus* was interrupted by the rectangular slot of a foundation trench for a timber building. The top of this revealed a worn *dupondius*, possibly of Domitian (St Joseph 1969: 108).

If camp II utilised the southern portion of camp I, suggested by St Joseph’s excavations on the south-east entrance of this camp, then it could be almost 300m in length and enclose around 8.5ha (21 acres). Hanson’s excavations did not show any sign of recutting of the ditch of camp I, which led him to suggest that there may have been a short time-gap between the occupation of the two camps (2002a: 57).



Illustration 151

Invergowrie. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Invergowrie (illus 151)

(Bullion; Catermillie; Cater Milley; Quatuor mille)

NO 3445 2999 NO 32 NW 26 (also NO 32 SE 46)

In 1757, Maitland recorded a site 'about 200 yards square, fortified with a high rampart and a spacious ditch' with the south side showing 'triple ramparts and ditches', while noting that parts of the camp were being demolished by the plough (1757: i, 215). Jervise noted that the camp could be partially seen down to the beginning of the 19th century (1859: 445), but it had disappeared by the time Knox was working in 1831, locating it on his map at Cater Milley, Invergowrie (Knox 1850). Crawford commented on the inconsistencies in Maitland's description, but noted that the site should be photographed from the air (1949: 138–9).

The camp was indeed rediscovered during aerial survey by Maxwell in the 1980s, and interpreted as such in 1990, lying to the west of Invergowrie and east of the Scottish Crop Research Institute (Frere 1991: 226). The camp of **Longforgan** lies just over 4km to the west. The land on which it is sited is fairly flat, with the camp lying only 300m north of the mudflats of the Firth of Tay, close to the Invergowrie Burn. Parts of two sides have been recorded from the air: 350m of the south-west side is currently projected or known, with an entrance and *titulus*, and up to 140m of the north-west side. If the *titulus* is central to the south-west side, the camp could measure

400m in length, supporting Maxwell's suggestion that it could measure about 400m by at least 300m, giving a minimum area of 12ha (30 acres) (Frere 1991: 226). Just to the north of the camp lies an alleged Roman fort, also

associated with Maitland's description. This was 'located' on an air photograph from December 1949 (Mechan 1966), but the photograph has not been found to confirm the identification.

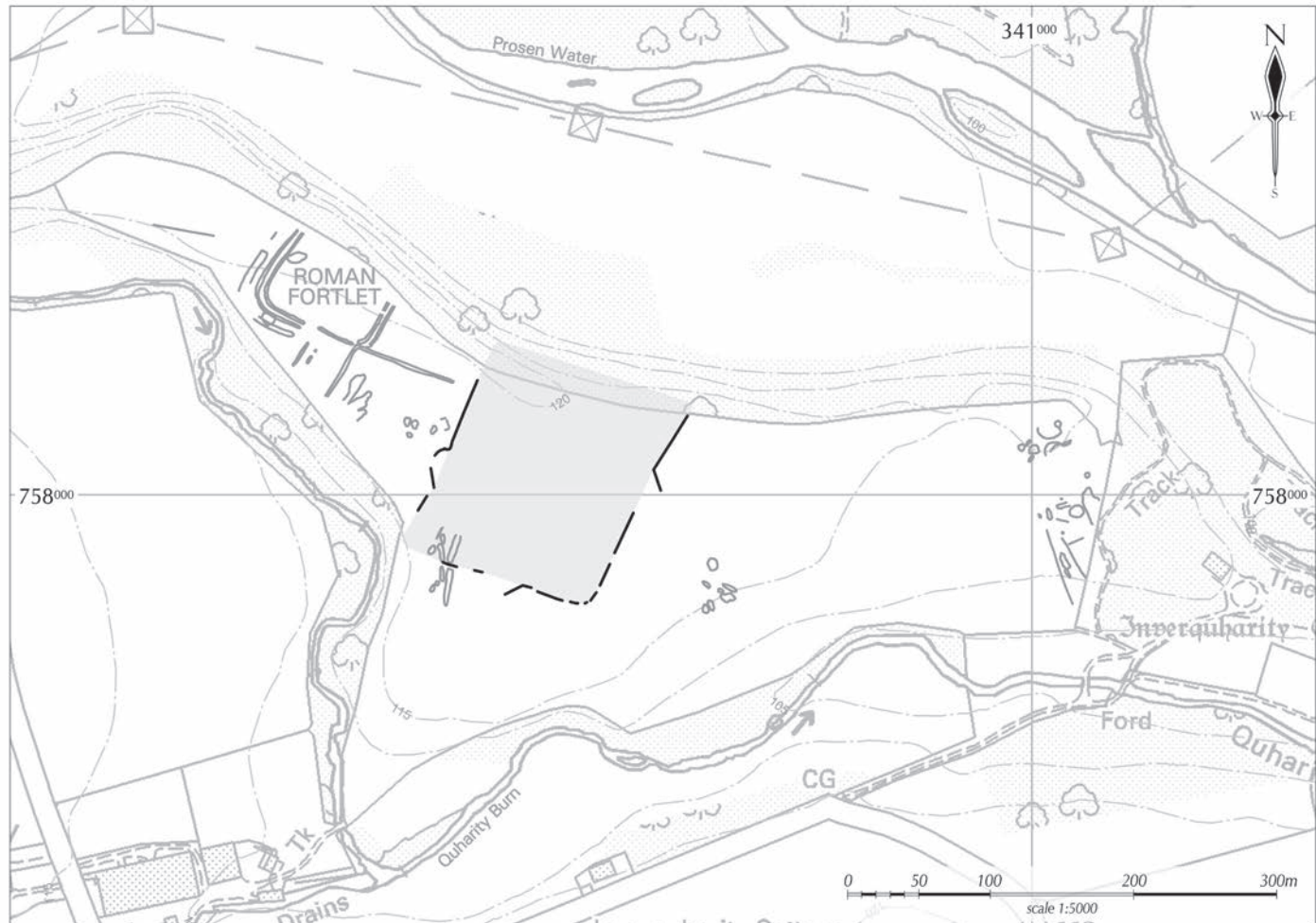


Illustration 152

Inverquhar and the nearby Roman fortlet and other cropmarks. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Inverquhar (illus 47 & 152)

NO 4066 5800 NO 45 NW 24

The camp at Inverquhar was first hinted at through cropmarks on air photographs taken by RCAHMS in 1983, and confirmed the following year (Frere 1984: 274; Frere 1985a: 263). It lies on a small promontory overlooking the confluence of the Prosen Water and the River South Esk, with the Quharity Burn running along the south side of the promontory; a small Roman fort lies 80m to the west. Sibbald had recorded that Severus had camps as far as 'Innecaritie . . . where vestiges of some appears', and this may refer to the fort or camp at Inverquhar (1707: 16).

Three sides of the camp are known from air photo-

graphs, the fourth largely lost through erosion to the north where the ground drops away steeply to the rivers, although the north-west corner was recorded through resistivity survey in 2002 (Woolliscroft 2002b). The camp measures about 150m from ENE to WSW by 136m transversely, enclosing some 2.35ha (almost 6 acres). Stracathro-type gates are recorded in the three known sides.

Maxwell & St Joseph conducted excavations on the camp in 1984, recording that the ditch on the east side was V-shaped, 1.8m in width and 0.9m in depth (Maxwell 1984b: 35).

Islafoot Drumlanrig (illus 35, 47 & 114)
(Drumlanrig)

NX 8597 9918 NX 89 NE 91

Discovered in 1997 by Maxwell from the air, the camp at Islafoot lies to the east of a bend in the River Nith, across from the fort and camps at **Drumlanrig**. Parts of three sides are known from cropmarks, and it measures 220m from west to east by at least 200m transversely, enclosing at least 4.5ha (11 acres). No entrances have been recorded.

The camp is accompanied by a series of linear cropmarks to its north and east, possibly providing additional defence for the camp within the haughland. If the south side of the camp were very close to the river, then its north-south measurement could be as much as 250m, but it is more likely that the camp was closer to square in form, enclosing some 4.8ha (11.9 acres).

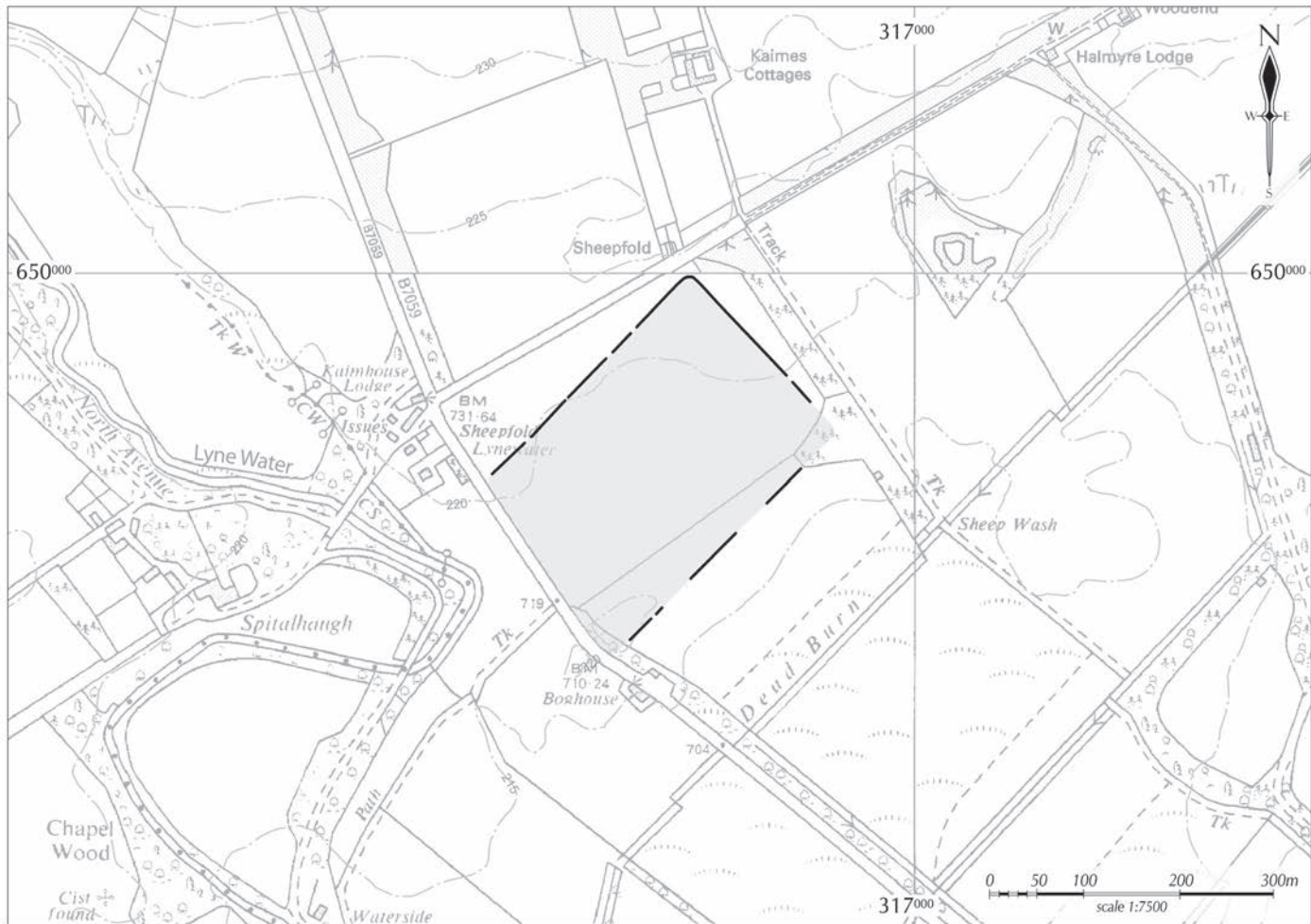


Illustration 153

Kaimhouse Lodge. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Kaimhouse Lodge (illus 47 & 153)
(Kaimhouse)

NT 1674 4982 NT 14 NE 49

First recorded during aerial survey by RCAHMS in 1992 (Keppie 1993: 284), the camp at Kaimhouse Lodge lies on level ground on the east bank of the Lyne Water. Parts of three sides have been visible in crop, and the line of the modern road (B 7059) may represent the south-west

side of the camp. It measures at least 310m from north-east to south-west by 225m and probably enclosed about 7.2ha (just under 18 acres). No obvious entrances have been recorded.

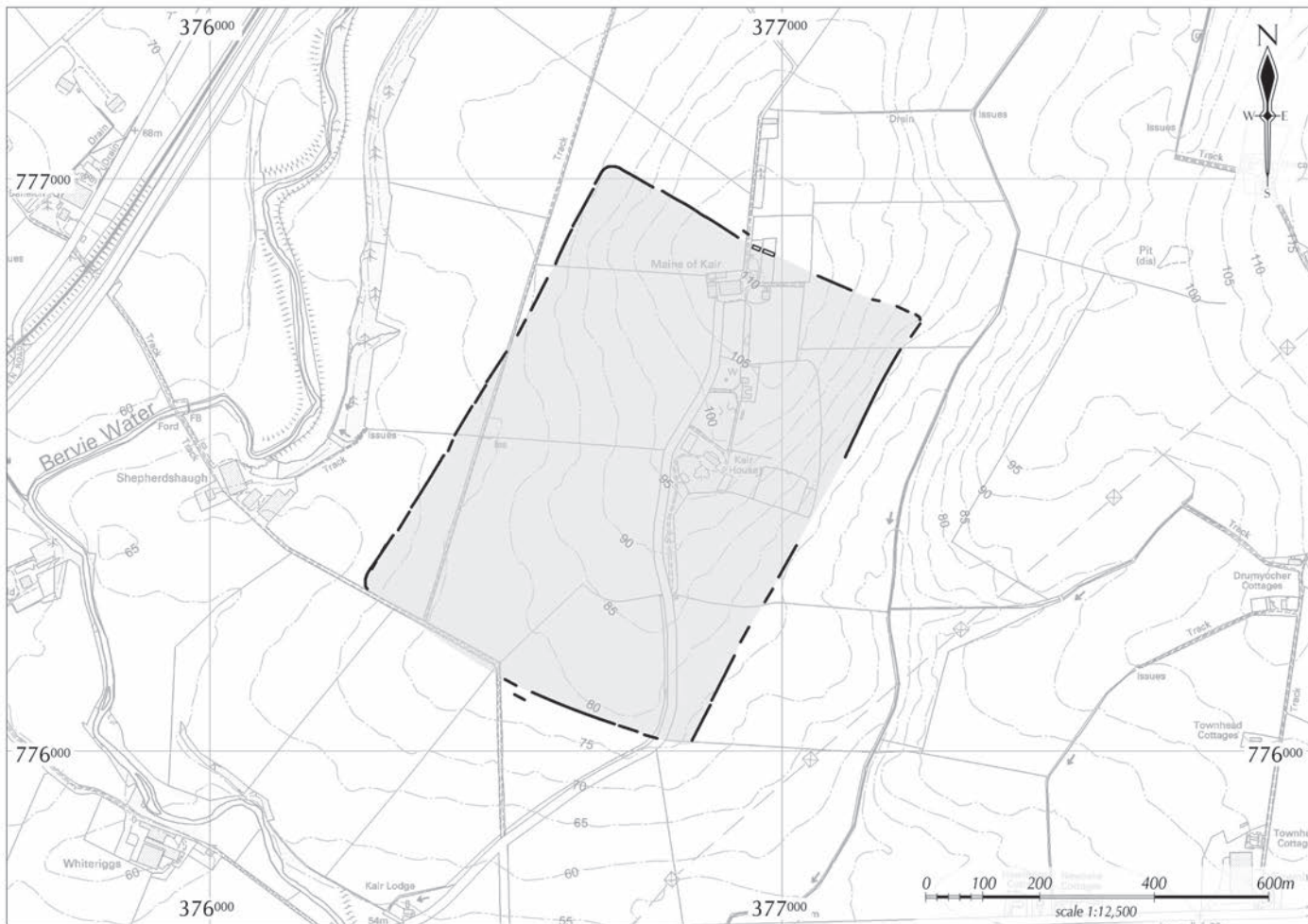


Illustration 154

Kair House. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Kair House (illus 47 & 154)

NO 7676 7653 NO 77 NE 1

The camp at Kair House in the Howe of the Mearns was first recorded from the air by St Joseph in 1945 (St Joseph 1951a: 65), although the area had been noted as a potential site for the Roman army by Roy (1793: 86–7). Subsequent aerial survey has recorded most of all four sides as cropmarks. The camp lies along the south-west part of a small hill above the Bervie Water, some 15km from the coast at Inverbervie. It is also located almost midway between the large camps of **Raedykes** and **Balmakewan**.

The camp measures around 870m from north-east to south-west by about 600m transversely, enclosing an area

of some 53.5ha (132 acres). A *titulus* is clearly visible in the centre of the south-west side, and a possible *titulus* in the north-east side, just to the west of the road. Given the size of the camp, it is assumed that it probably had six gates. Most of the camp lies in arable fields, but a small stretch of upstanding rampart survives on the north-east side: 18m survives in a small grass field and a further 11m in a conifer plantation; any accompanying ditch could not be traced. The rampart is spread about 3.7m wide and measures 0.3m high in the plantation, and is 5.4m wide and up to 1.1m high in the grass, although it is increasingly disturbed and reduced as it approaches the road.

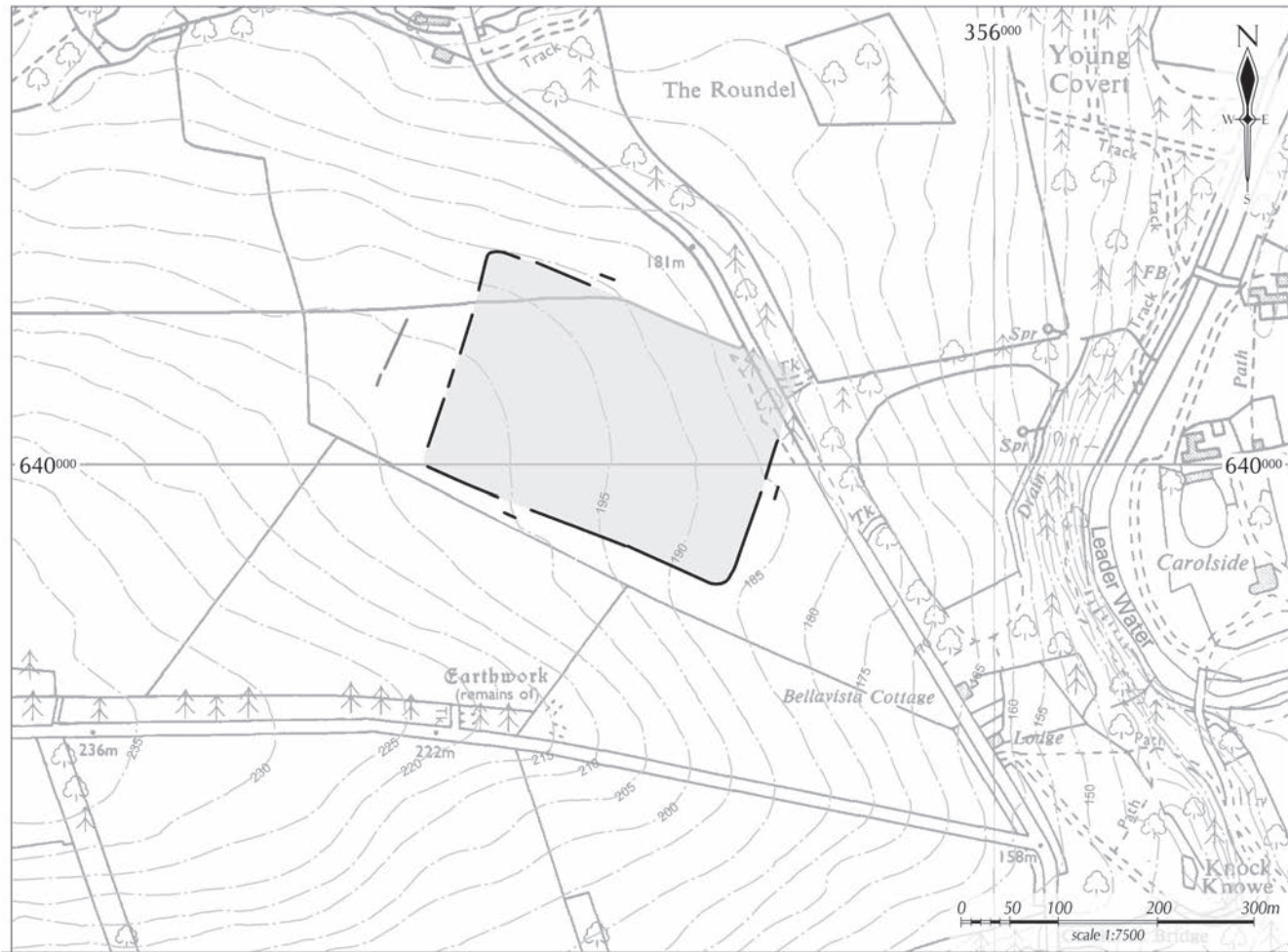


Illustration 155

Kedslie. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Kedslie (illus 47 & 155)

NT 5562 4003 NT 54 SE 20

First recorded by Cambridge University in 1976 (Maxwell & Wilson 1987: 37–8), the camp at Kedslie lies on sloping ground on the line of Dere Street. The majority of the camp has been recorded as a cropmark, but a field boundary is sited on part of the NNE side. The camp measures 335m from WNW to ESE by 232m and enclosed almost 7.8ha (19 acres). Entrance gaps protected by *tituli* are visible in

all four sides, the two side gates positioned towards the WNW end of the camp.

An additional linear cropmark is visible some 68m to the WNW, at a slight angle to that side. It is possible that this represents an earlier phase of the camp, but this is unlikely given the variant in the angle and lack of supporting cropmarkings.

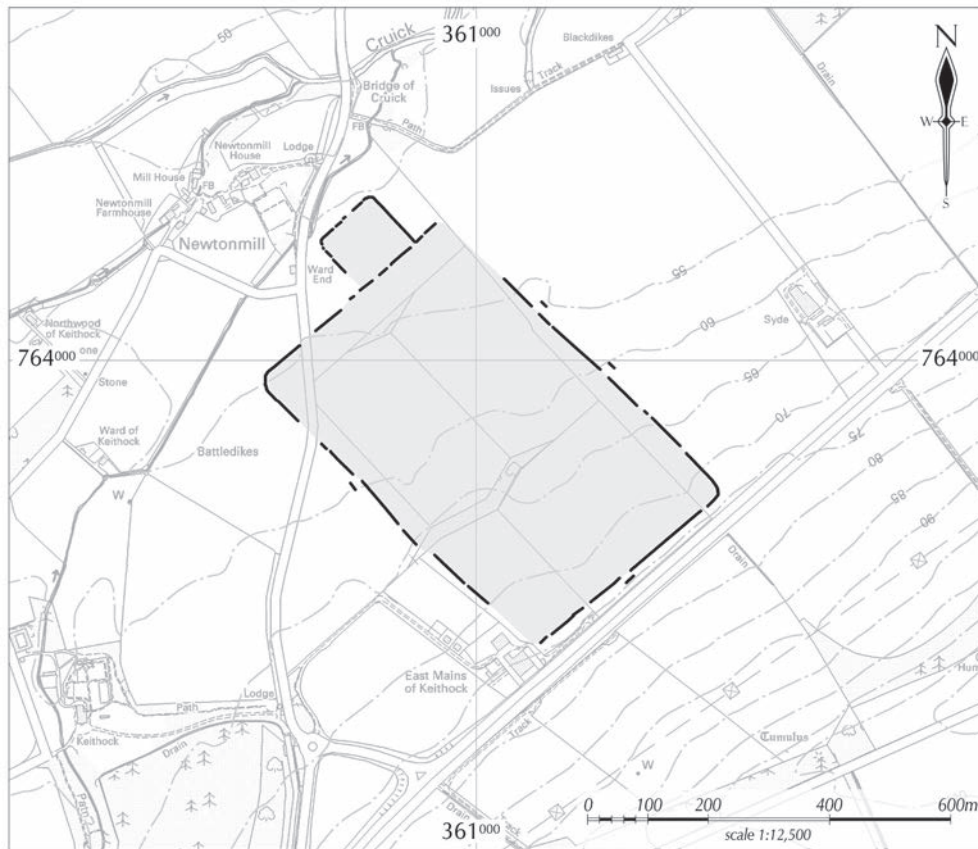


Illustration 156

Keithock. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Keithock (illus 47 & 156)
(Battledykes; Black Dykes; Kiethick; Wardykes)

NO 6103 6388 NO 66 SW 1

The camp at Keithock was one of the camps discovered by Captain Robert Melville while travelling through Strathmore in August 1754 (Balfour-Melville 1917: 123n), and planned by Roy the following year (Roy 1793: Pl. XIV; Jones & Maxwell 2008; see above, Chapter 3). It is now known only through cropmarkings on air photographs.

The camp lies just to the south of the Cruick Water, across which, about 1.5km to the NNE, lies the fort and camp at **Stracathro**. It is situated on ground that slopes gently from the south-east to the north-west. The camp measures 640m from north-east to south-west by about 410m transversely, with the south-east side longer than that on the north-east. It encloses a total area of about 26ha (64 acres).

Tituli are visible on the south-east and south-west sides, with two on the north-east side suggesting that it had six gates in total. Both Roy and St Joseph also recorded a *titulus* on the north-west side, but this could not be confirmed on the available air photographs (1793: Pl. XIV; RCAHMS DC 37458).

An annexe is visible to the north of the entrance gap on the north-west side. This measures some 117m by 109m and encloses 1.27ha (3 acres).

St Joseph conducted a small excavation on the north-east side in 1967, recording that all but the bottom 13cm of the ditch had been ploughed away, but his section drawing indicated a ditch which was about 0.9m in width at the top (RCAHMS St Joseph Collection: Notebook 4).

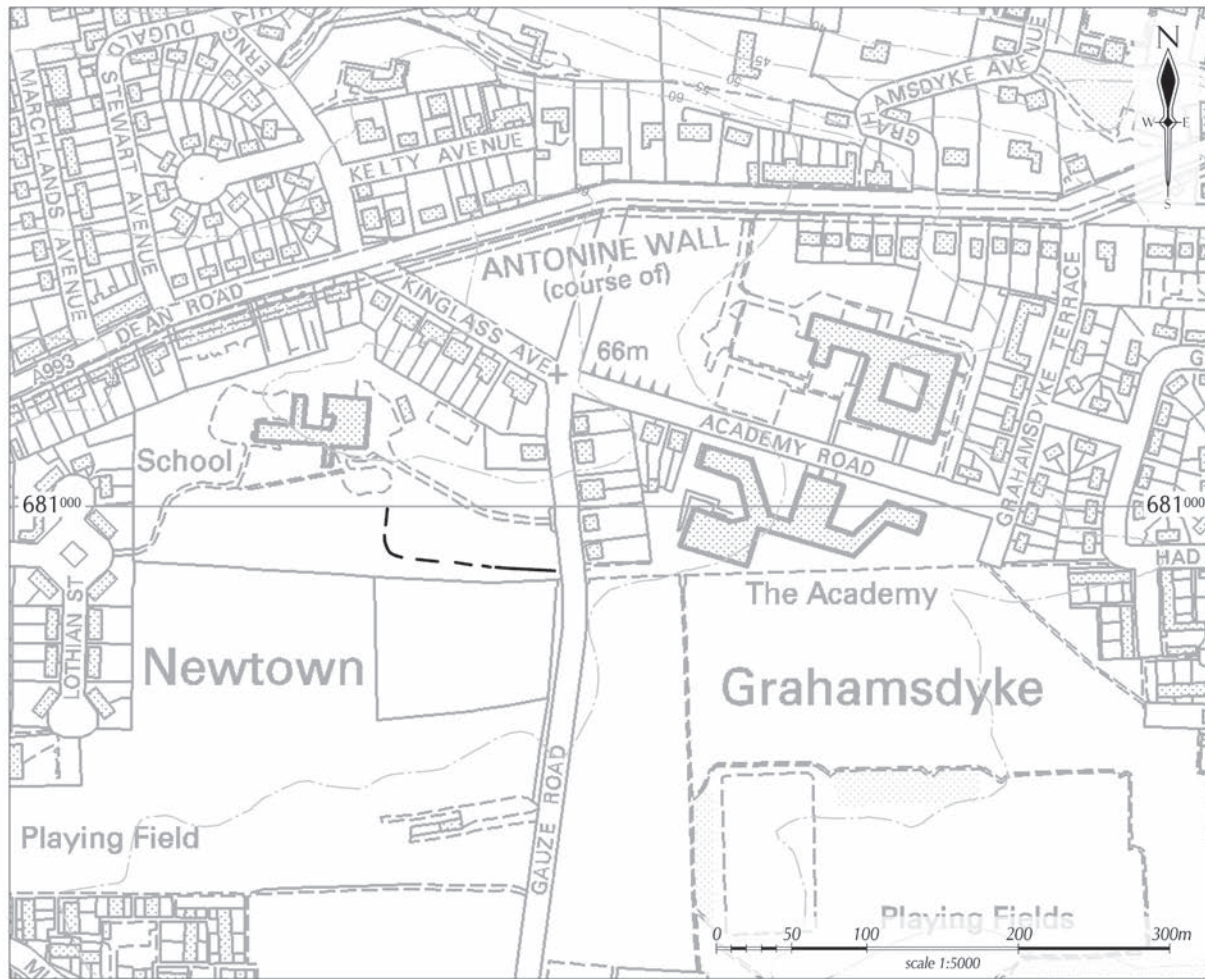


Illustration 157

Kinglass Park. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Kinglass Park (illus 157)

NT 0032 8101 NT 08 SW 10

The camp at Kinglass Park was first discovered as a cropmark from the air by St Joseph in 1948 (1951a: 62), and sits on level ground just to the south of the presumed line of the Antonine Wall along Dean Road (Grahamsdyke Road).

The air photographs reveal about 115m of the south side, a rounded south-west angle and 31m of the west side of the camp, the remainder lying under the Newtown area of Bo'ness, including a school. Feachem identified a possible *titulus* on the west side of the camp from the air photographs, but this could not be confirmed. He also

recorded part of the west and east sides and the north-east corner through probing, leading him to suggest that the camp measured about 490ft (149m) square, enclosing about 5.5 acres (2.2 acres) (1958: 334–5). However, a watching brief in 1998 on the presumed eastern side of the camp revealed no trace of ditch, and the excavator also noted the heavy terracing that had taken place around the north-east corner and questioned the results found by Feachem (Bailey 1998; Keppie 1999: 329). As a result, it is no longer possible to confirm the perimeter of the camp, beyond what has been recorded on the air photographs.

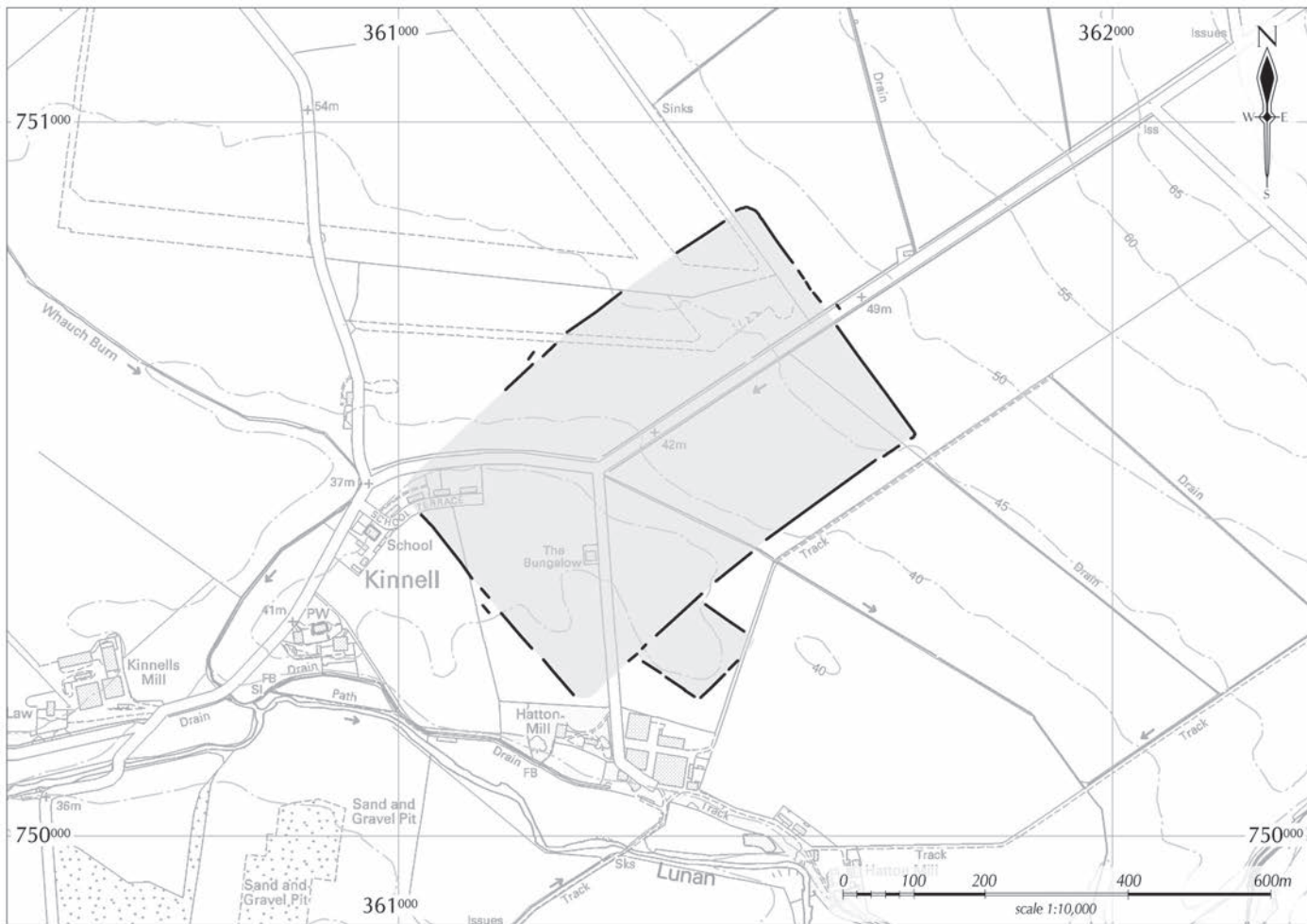


Illustration 158

Kinnell. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Kinnell (illus 47 & 158)

NO 6135 5055 NO 65 SW 26

The camp at Kinnell was first discovered as a cropmark from the air by St Joseph in 1968 (1969: 111–12), lying on fairly level ground to the east of Kinnell, on the north side of the Lunan Water. A disused Second World War airfield lies immediately to the north, covering part of the north-west side of the camp.

Most of all four sides of the camp are now known, and it measures 620m from north-east to south-west by 400m, enclosing 24.7ha (61 acres). Gates protected by *tituli* are visible in north-west, north-east and south-west sides. Gaps in the south-east side may be entrances on this side;

a slight change in alignment at one probably indicates the position of an entrance. Just to the south-west of this lie two linear cropmarks representing part of an annexe. This measures 116m by 106m, enclosing some 1.2ha (3 acres).

St Joseph placed trenches through the north-east and south-west sides of the camp in 1968, recording that the ditch measured up to 2.6m in width and up to 0.7m in depth (RCAHMS St Joseph Collection: Notebook 5). Further trenching by Robertson in 1970 recorded that the ditch was V-shaped, and about 1m deep and 2.4m wide where best preserved (Robertson 1970a: 4).

ROMAN CAMPS IN SCOTLAND

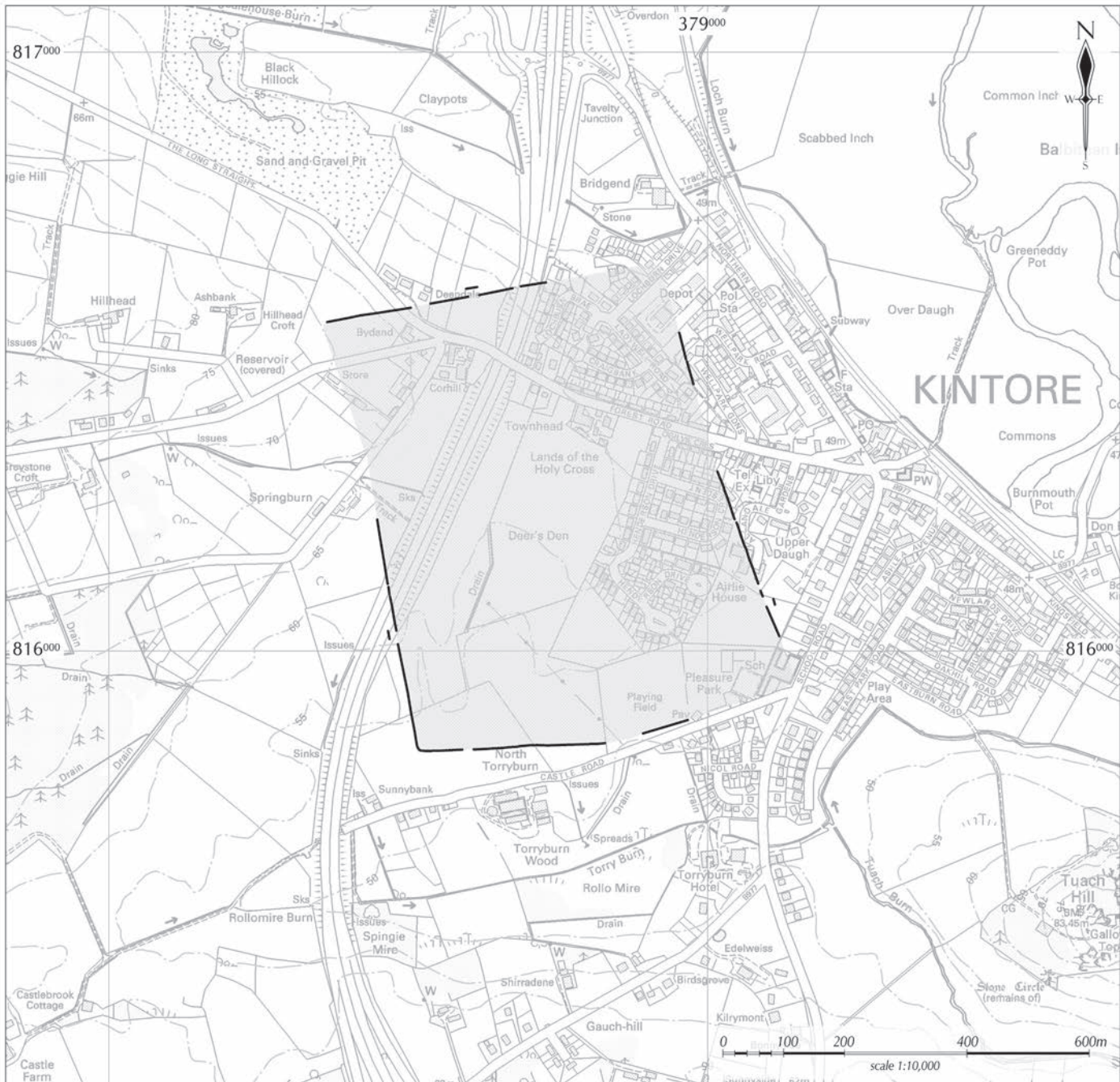


Illustration 159

Kintore. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Kintore (illus 18, 31, 47, 51 & 159)

(Deer's Den)

NJ 7869 1619 NJ 71 NE 28

The camp at Kintore was first recorded by Captain E H Courtney of the Royal Engineers in 1867, following receipt of a pamphlet by Mr Alexander Watt of Kintore

entitled *The Early History of Kintore* (Watt 1865). The publication by Watt dates to 1865, but his notes about the Deer's Den had been made some years before, probably

in the 1810s (Courtney 1870: 389), although possibly slightly earlier. Courtney commented that the camp had been much reduced since Watt's observations, noting that Watt's measurements recorded the rampart at least 5.5m in width and up to 2.4m in height with a ditch some 3m in width. The potential accuracy of Watt's measurements is indicated in the note that states that Watt recorded the west side as 800 yards long and Courtney as 809 yards (1870: 391n). Courtney also noted that the Aberdeenshire Canal passed through the east side of the camp (1870: 392), and this was also confirmed by excavation on the north side in 1984, indicating that it cut across the camp from north-west to south-east (Shepherd 1987: 205–6). The plan that Courtney produced of the north side, presumably derived from Watt, is fairly complete, which may suggest that Watt's notes were made prior to the cutting of the Canal (from Aberdeen to Port Elphinstone, just south of Inverurie), which opened in 1805 and closed in 1854 (Graham 1968: 172–3). The loss of the earthworks of the camp continued, and by 1943 no trace of it could be seen on the ground (Crawford 1949: 114–15), although it has been recorded through cropmarkings since 1945.

The camp is located on the west side of the village of Kintore, on relatively flat land to the west of the River Don. The landscape covered by the camp has been under improved pasture and arable for a number of years, but this has been gradually converting to housing as Kintore has expanded, and the A96 road also cuts across it. The camp measures about 776m from NNW to SSE by about 600m transversely, enclosing 44.6ha (110 acres). Courtney did not record any gates, but entrance gaps with *tituli* have now been recorded in the centre of the NNW side and in the southern part of the WSW and ENE sides.

The latter two have both been excavated (Alexander 2000; Dunbar & Cook 2004). There is a change of direction in the northern part of the WSW side where the camp is crossed by the road to Springburn according to Courtney's plan (1870), and this probably represents a further entrance on that side; there is also a slight change of direction in the centre of the south side at the probable entrance gap.

The result of the expansion and development of Kintore in recent years has been a series of excavations of the majority of the camp (perimeter and interior). The widespread nature of the excavations has resulted in a wealth of material being uncovered. Over 200 features including ovens and pits have now been recorded in the interior of the camp from various excavations (Shepherd 1987; Alexander 2000; Glendinning 1998a; Hamilton & McGill 1997; Cook 2001; Cook 2002b; Dunbar 2003; Dunbar & Cook 2004; Cook & Dunbar 2008; Cook *et al* forthcoming). Radiocarbon dates obtained thus far indicate both Roman and post-Roman dates (Alexander 2000; Cook & Dunbar 2008), but cluster in the late 1st century AD. The first phase of the recent large-scale excavations at Forest Road has now been published (Cook & Dunbar 2008).

Excavations of the perimeter ditch have recorded that it measured up to 3.35m in width and 1.4m in depth in the north-east corner (Rees 1996), and around 3m in width and 1.5m in depth in the south-west corner (Cook & Dunbar 2008: 128–30). The site is currently unique in the Roman Empire; the wealth of internal features and finds from the camp are starting to provide valuable insights about the activities of the Roman army in the field (Cook & Dunbar 2008; Cook *et al* forthcoming; Cook in prep; see above, section 7f).

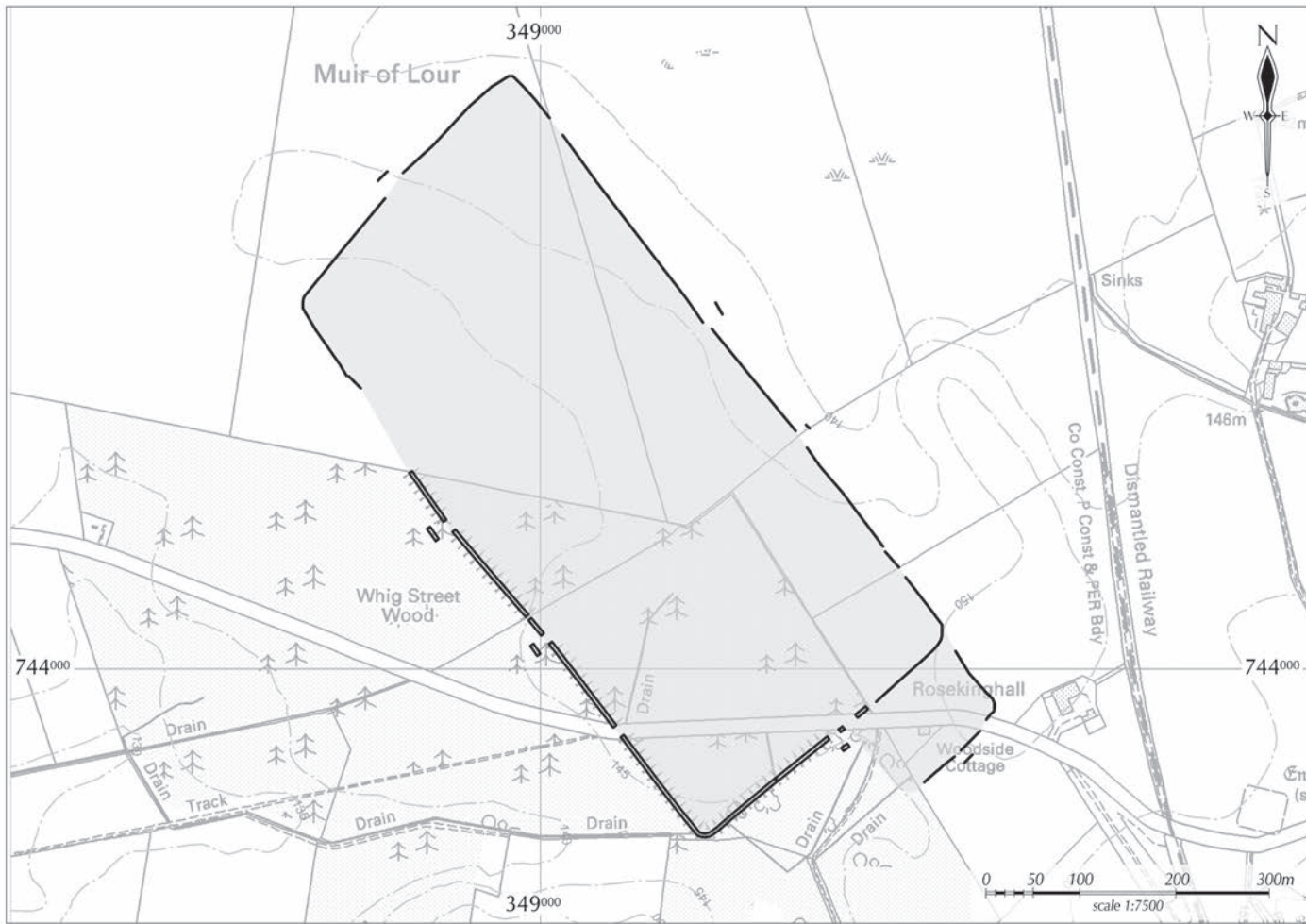


Illustration 160

Kirkbuddo. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Kirkbuddo (illus 25, 47 & 160)

(Harefaulds; Haerfauds; Norway Dikes; Karboddo; Kirkboddo)

NO 4905 4425 NO 44 SE 15

The camp at Kirkbuddo was one of the camps discovered by Captain Robert Melville while travelling through Strathmore in August 1754 (Balfour-Melville 1917: 123n; Jones & Maxwell 2008) and planned by Roy the following year (Roy 1793: Pl. XIV). When Roy planned it, most of the camp was upstanding, including six gates protected by *tituli* and an annexe on the south-east side, with only small portions of the north-east and south-west sides not visible. It is also depicted as a rectangle labelled 'Roman camp' on Ainslie's map of Forfar and Angus (1794).

Writing in the late 18th century, Jameson noted that the local vulgar term for the site was Haerfauds, which means 'the ditches, trenches or folds of the "strangers"' (1786: 20). Gordon, quoting Commissary Maul (who was

writing in 1606–12), refers to 'Karboddo' as the vestiges of a Danish camp known as 'Norway Dikes' near the village of Panbride (1726: 33, 154). Crawford notes this source, commenting on its significance of this as one of the earliest topographical accounts of Scottish antiquities (1949: 97n), although Panbride lies some 11km to the south-east. Visiting the camp in 1925, Crawford noted that much of the camp could still be seen, with the south part in the wood well preserved, and the north-west side visible in ploughed fields. By the time of his later visit in 1939, the north-west side could not be detected; most of the north-east side could be traced on both dates (1949: 98–9).

The camp lies in the Muir of Lour, some 7km SSE of Forfar and east of the Sidlaw Hills. The southern part of

the camp is still extremely well preserved, lying in Whig Street Wood, while the rest of the camp is visible through cropmarks. The camp is oblong in shape, measuring 740m from north-west to south-east by 343m transversely, enclosing some 24.7ha (61 acres). The annexe planned by Roy is visible on air photographs attached to the east part of the south-east side, and measuring 91m to the south-east by at least 117m, enclosing at least 1ha (2.5 acres). There is no upstanding trace of the annexe in the wood, suggesting that the south-west side of the annexe lay in the ploughed field behind Woodside Cottage.

Part of the south-west side, immediately north of the wood, has been lost in boggy ground (this part was also lost in Roy's day), and there is a clear change of direction in this area which indicates that the camp deviated around

this ground, because there does not appear to have been a deviation at the point of an entrance.

In Whig Street Wood, the rampart survives up to a height of 1m and is spread some 4.6m, with the ditch at least 0.5m deep in places, and 1.5m wide. The best-preserved *titulus* is that on the south part of the south-west side, some 14m from the camp, and it measures 13.5m in length. The *titulus* mound is 0.7m high, 5m wide, with the ditch about 1m deep and 2.5m wide. The corresponding entrance gap in the camp appears to narrow at the entrance (both rampart and ditch narrow), and the gap is 9m wide.

Excavations on the camp were conducted in 1955 and 1959, to obtain soil profiles beneath the upstanding rampart (Romans 1962).

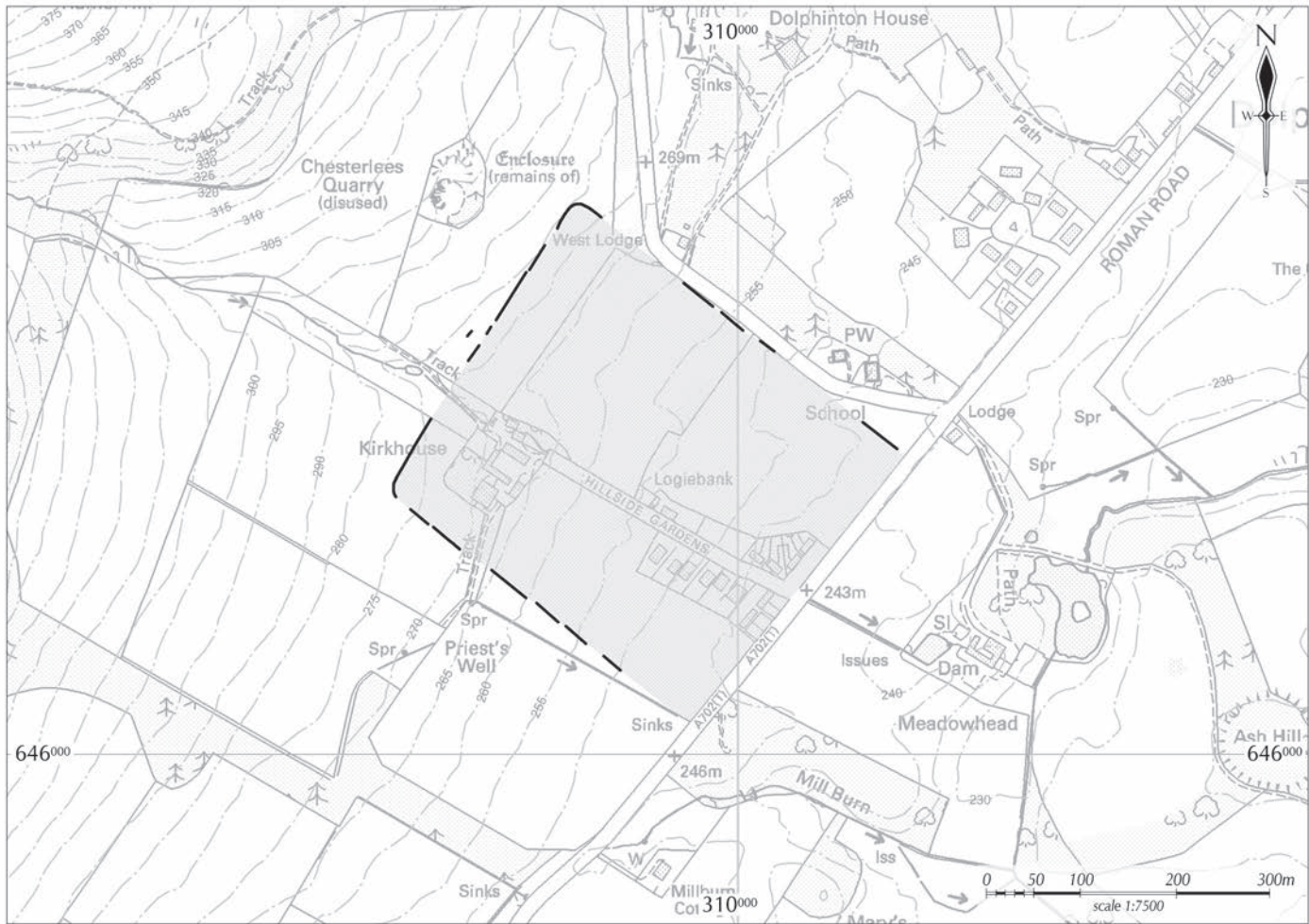


Illustration 161

Kirkhouse. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Kirkhouse (illus 47 & 161)

NT 0980 4620 NT 04 NE 47

First recorded in 1983 by RCAHMS from the air (Frere 1984: 276), the camp at Kirkhouse lies on a slope facing south-east and on the Roman road which runs up the east side of the Pentland Hills. Three sides of the camp have been visible through cropmarks, and it measures at least 435m from north-west to south-east by 360m, enclosing at least 16ha (almost 40 acres). A gap is visible in the centre of the north-west side, protected by a *titulus*.

Excavations on the ditch in 1985 by Maxwell recorded that it varied from 2.4m to 3.25m in width and from 0.8m to 1m in depth (Frere 1986: 371–4). In addition, his excavations demonstrated that the line of the camp continued into the field south-east of the road. Therefore this camp is believed to pre-date the presumed line of the Roman road on the modern road line.

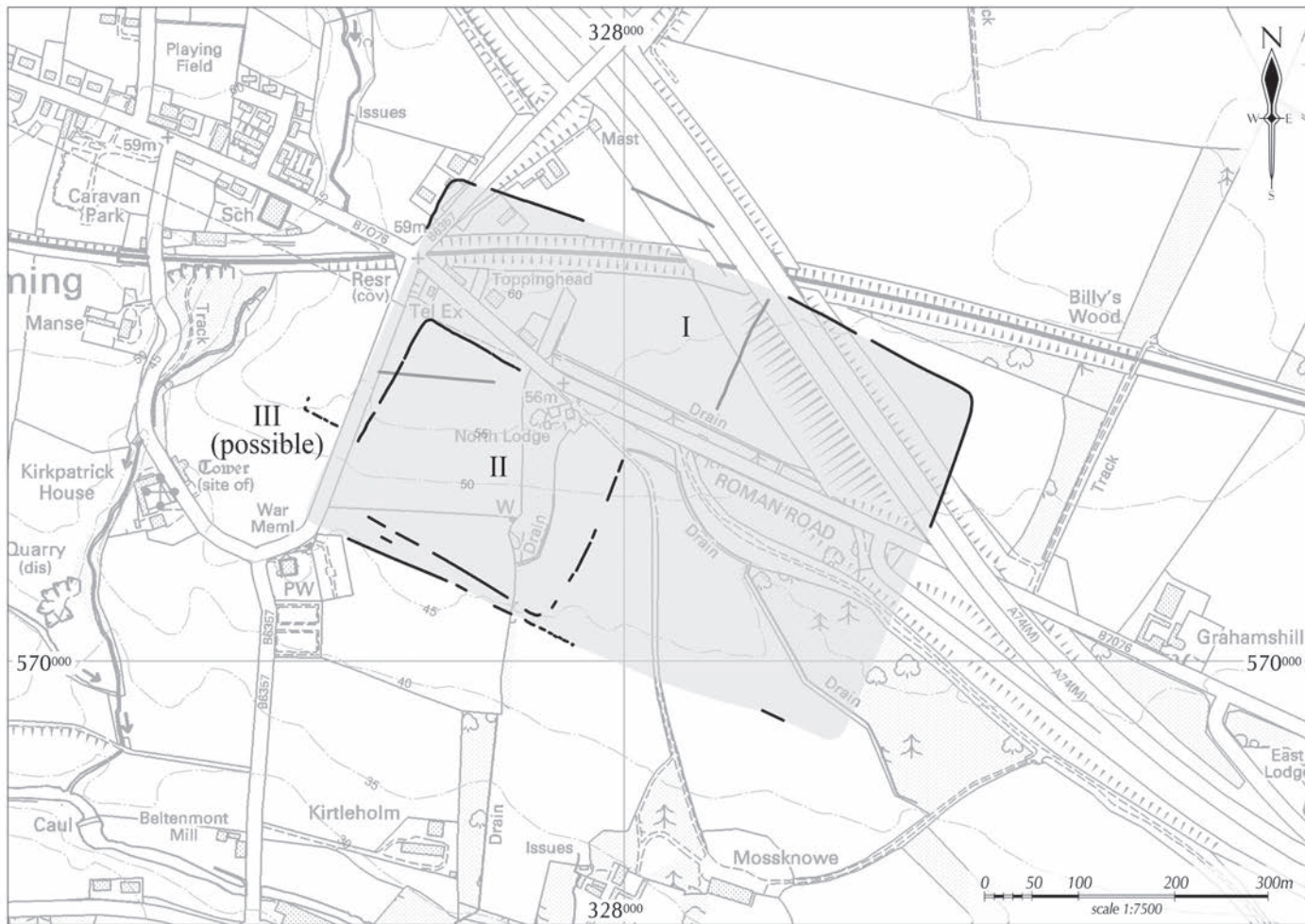


Illustration 162

Kirkpatrick-Fleming I-II and III (possible) and other cropmarks in the area. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Kirkpatrick-Fleming (illus 47 & 162)

Kirkpatrick-Fleming I: NY 2806 7020
NY 27 SE 7

Kirkpatrick-Fleming III (possible): NY 2768 7026
NY 27 SE 7

Kirkpatrick-Fleming II: NY 2806 7020
NY 27 SE 7

The two (possibly three) camps at Kirkpatrick-Fleming lie on a low rise on the Roman road into south-west Scotland and are now cut by the main road (A74(M)) and railway lines into this area. The first was discovered in 1949 through cropmarks by St Joseph from the air (1951a: 57); the second, which lies wholly within the western part of the first at an oblique angle, was subsequently recorded in 1958 (St Joseph 1961: 122).

Camp I measures just over 600m from WNW to ESE by 420m transversely, enclosing 24.5ha (just over 60 acres). An entrance gap has been excavated on the NNE side, but no accompanying entrance protection has been recorded.

Various excavations, watching briefs and a geophysical survey have been carried out on parts of the camp in advance of the upgrade of the A74 road to motorway status. These have recorded that the ditch of the camp measured up to 2.9m in width and 0.75m in depth in places (Leslie 1991; Keppie 1996a: 402). The excavations revealed the remains of a possible road, also suggested by a snow line, which may be Roman, although insufficient dating evidence was recovered. In addition, parts of a possible annexe or third camp were located to the west of camp I (Kirkpatrick-Fleming III) (Leslie forthcoming). This structure runs to the north-west of camp I for about

55m before turning to the north in a slightly rounded corner angle. The ditch was V-shaped, measuring up to 1.7m in width and 0.7m in depth in places. One section contained five sherds of pottery from the same Roman grey coarseware in the silt at the bottom of the ditch (Leslie 1991). This pottery has been dated to AD 100–150 (A Leslie pers comm). If this is indeed an annexe, as seems likely, it would have met the putative Roman road some 45m to the north. If its dimensions were 55m by 45m

then it would have been very small, at 0.25ha (0.6 acres), but its relationship with the possible road is unknown.

Camp II lies within camp I, but the two do not appear to share any common sides. It measures 265m from north-west to south-east by 211m, enclosing almost 5.5ha (13.5 acres). An entrance gap protected by a *titulus* is visible on the south-west side, towards its western end. Unlike camp I, this camp has not been subject to excavations, lying a short distance away from the main road.

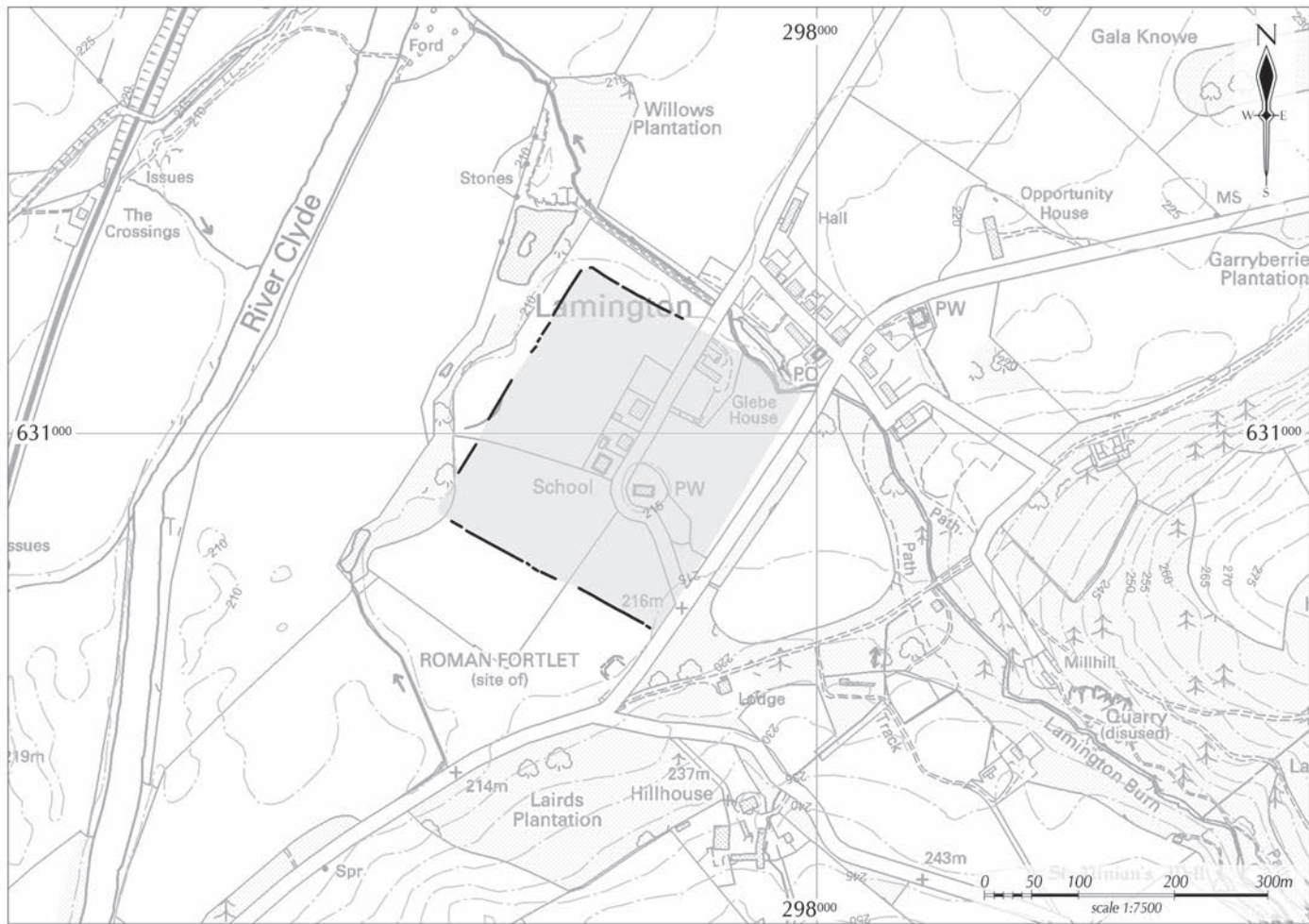


Illustration 163

Lamington, and other cropmarks including the Roman fortlet. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Lamington (illus 47 & 163)

NS 9779 3099 NS 93 SE 26

The camp at Lamington lies on level ground on the east bank of the River Clyde, on the line of the Roman road running up the east side of the Pentland Hills and 50m north of a Roman fortlet; it also intersects a fort of probable Iron Age date, but the relationship between the two is not known. It was first recorded in 1976 by

Maxwell as a cropmark from the air (RCAHMS 1978a: 160); parts of its three sides are known, indicating that it measured 304m from north-east to south-west by at least 260m. If the line of the Roman road and modern A702 mark its south-eastern extent, then it enclosed some 8.2ha (20 acres).

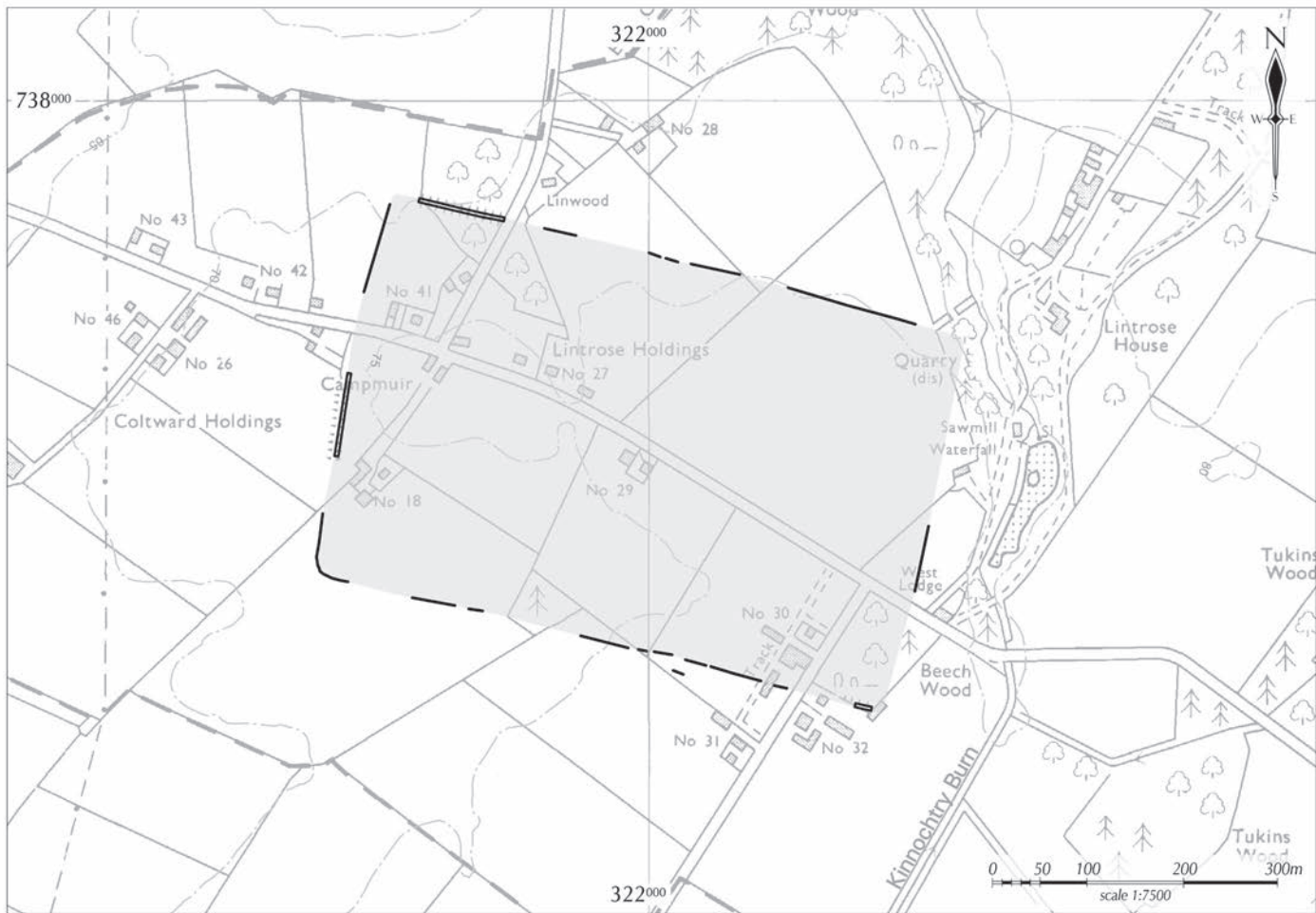


Illustration 164

Lintrose. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Lintrose (illus 47 & 164)

(Campmuir)

NO 2200 3760 NO 23 NW 5

The camp at Lintrose was discovered by Captain Robert Melville in August 1754 (Balfour-Melville 1917: 123n; Jones & Maxwell 2008), and planned by Roy the following year (Roy 1793: Pl. XIV). When Roy planned it, the whole of the WNW side, most of the SSW side and parts of the other two sides were upstanding, including a *titulus* in the WNW side. When Crawford visited the site in 1925, small stretches of the WNW and NNE sides were visible, along with two short stretches adjacent to the south-east corner (1949: 85–6). Today, only the small stretches of upstanding rampart close to the south-east corner and a stretch of the NNE side close to the north-west angle can be detected. The stretch of the WSW side south of the main road through the camp

is barely visible as an earthwork. Much of the remainder of the camp is now known through cropmarks on air photographs.

The camp lies about 2km south of Coupar Angus, on level ground west of Lintrose House at the village of Campmuir; the Kinnochtry Burn runs along its east side. It measures about 624m from WNW to ESE by about 404m transversely, enclosing 25ha (62 acres). The *titulus* that Roy recorded in the WNW side is no longer detectable, but there is an entrance gap and *titulus* in the SSW side, towards the eastern part of that side. The size and layout of the two recorded entrances suggest that the camp originally had six gates. The rampart of the camp survives in a few stretches up to a maximum

of 6m in width and 0.7m in height. Excavations in 2004 recorded that the ditch was V-shaped, measuring 2.3m in width and 0.75m in depth. These also noted a hearth feature of unknown date within the camp (Hunter 2005: 393, fig 6).

The OS noted that an earthwork in Packmanley Wood, on the ESE side of the camp, had been proposed as its north-east corner by General Sir Riddell-Webster of Lintrose, but that it could be the remains of a track (OS Recorder 1958).

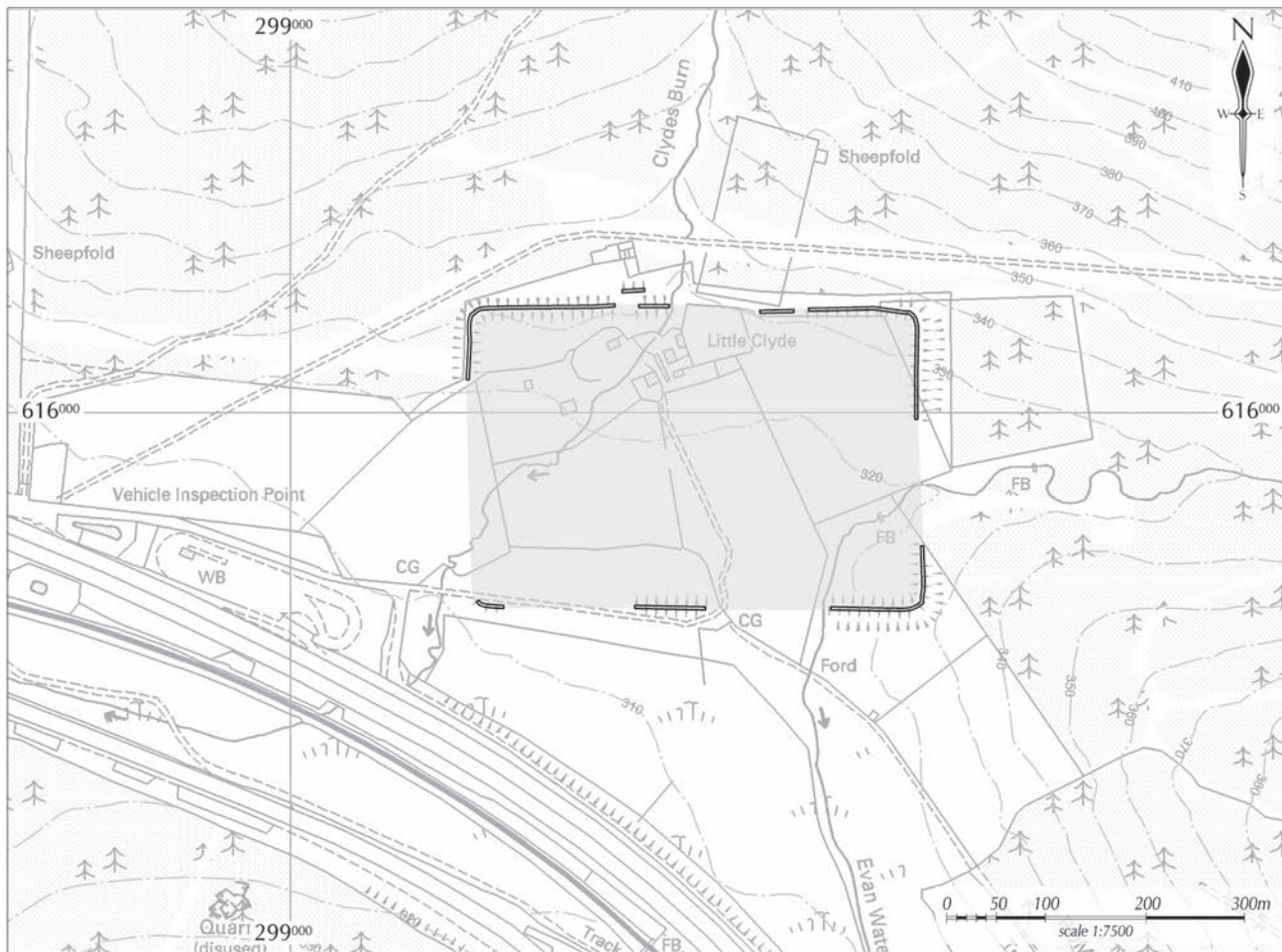


Illustration 165

Little Clyde. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Little Clyde (illus 47 & 165)

NS 9940 1595 NS 91 NE 7

First recorded through ground survey by Crawford in 1924 (Collingwood & Taylor 1924: 207), the camp at Little Clyde still survives as an upstanding earthwork on the line of the Roman road between Annandale and the Upper Clyde. It measures 434m from east to west by 288m and enclosed 12.5ha (almost 31 acres). An upstanding *titulus* is visible in the north side, and Crawford reported a second

titulus on this side (Collingwood & Taylor 1924: 207), but this one can no longer be discerned on the ground. The upstanding rampart of the camp survives to a height of some 0.7m and is spread some 3m wide, with the accompanying ditch 0.3m in depth and 2.1m in width. RCAHMS recorded that the ditch may have been rock-cut in places (1978a: 134).

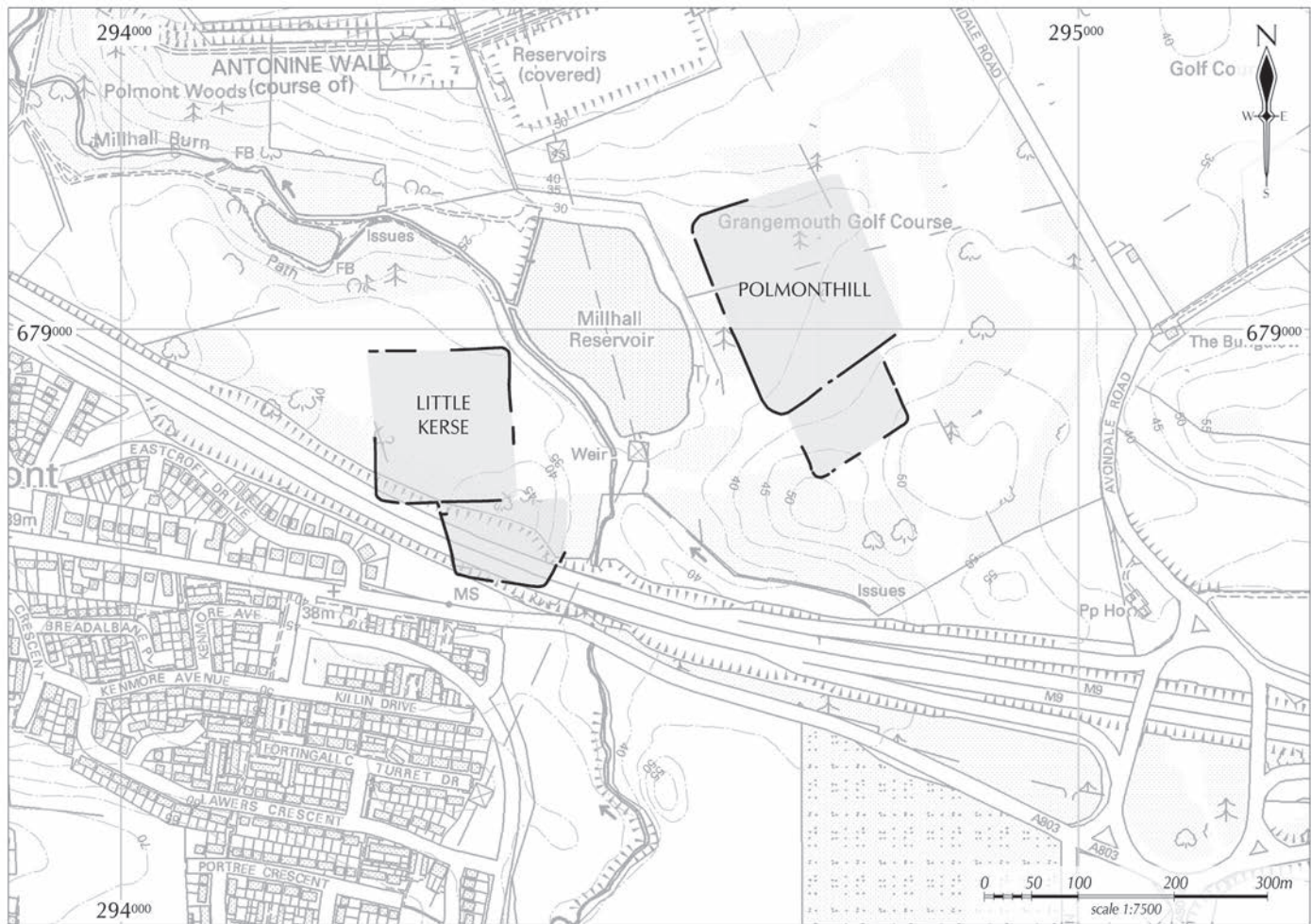


Illustration 166

Little Kerse and Polmonthill with the Antonine Wall to the north. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Little Kerse (illus 47 & 166)

NS 9433 7888 NS 97 NW 12

The camp at Little Kerse was first recorded as a crop-mark from the air by St Joseph in 1946, alongside its neighbour at **Polmonthill** (St Joseph 1951a: 62). It is situated about 350m south of the Antonine Wall between the forts of Inveravon and Mumrills, just over 1km west of the former (across the River Avon) and some 2.5km east of the latter.

When originally discovered, the site lay in arable fields, but it now lies on Grangemouth Golf Course, and the construction of the M9 from Edinburgh to Stirling has destroyed its southern portion.

The camp is almost rectangular in form, measuring 158m from north to south by 143m transversely, enclosing an area of about 2.3ha (5.6 acres). It is provided with an annexe on its south-east corner, enclosing an additional

1ha or so and incorporating what was a substantial knoll, now largely destroyed by the M9. Probable entrance gaps are visible in the north, east and west sides; RCAHMS recorded *tituli* on the east, west and south sides by probing (1963: 107).

The provision of an annexe is unusual, as these have only been recorded at two other camps on the Antonine Wall: **Balmuilly** and nearby **Polmonthill**. Feachem suggested that the annexe was provided on higher ground in order to signal and observe in an area that may have been wooded in antiquity (Feachem 1958: 334, following Macdonald 1934: 87), but this seems unlikely.

The annexe was subject to excavation in 1963, revealing a V-shaped ditch in places, but was less regular on the east side, running down a steep slope and gradually

diminishing to a very small trench as it ran to the north (McCord & Tait 1980).

Pottery fragments of early Antonine date were recorded in the ditch of the annexe, suggesting that the camp

related to the construction of the Wall (also see **Dullatur** I and II). A number of long cists were uncovered in the interior, of probable post-Roman date (McCord & Tait 1980).

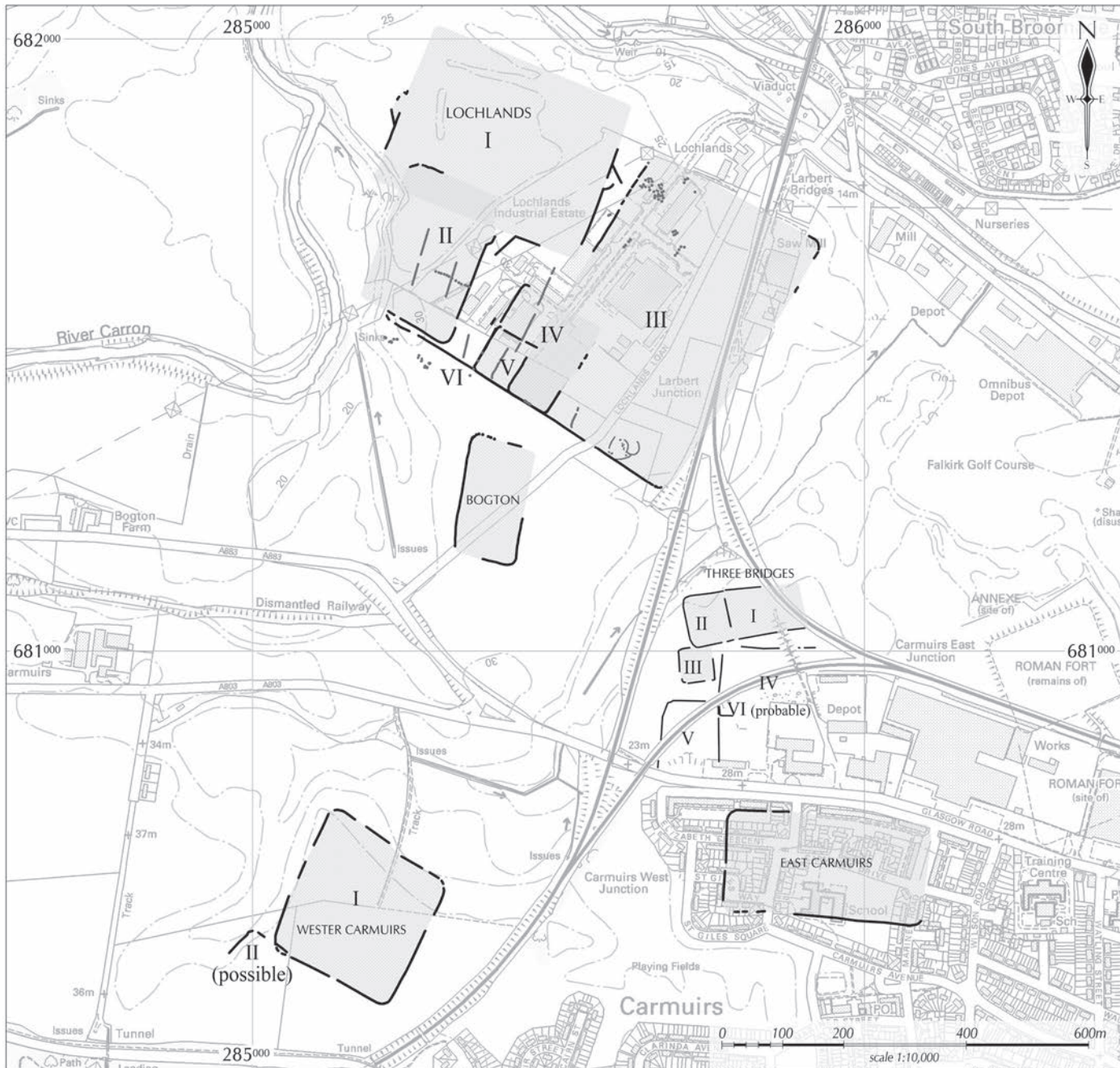


Illustration 167

Lochlands I–VI, Bogton, Three Bridges I–VI, East Carmuir and Wester Carmuir I–II and other cropmarks in the area. The Roman fort at Camelon lies to the east of the Three Bridges area. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Lochlands (illus 22, 47, 167)

<i>Lochlands I: NS 8540 8190</i>	<i>Lochlands V: NS 8540 8148</i>
<i>NS 88 SE 96</i>	<i>NS 88 SE 7</i>
<i>Lochlands II: NS 8530 8168</i>	<i>Lochlands VI: NS 8534 8148</i>
<i>NS 88 SE 66</i>	<i>NS 88 SE 7</i>
<i>Lochlands III: NS 8568 8160</i>	<i>Lochlands Bogton: NS 8540 8125</i>
<i>NS 88 SE 7</i>	<i>NS 88 SE 67</i>
<i>Lochlands IV: NS 8545 8153</i>	
<i>NS 88 SE 7</i>	

The Roman fort at Camelon lies to the north of the fortlet of Watling Lodge on the Antonine Wall, some 1km from the Wall. Excavations on the fort have shown that it was occupied in the Flavian and Antonine periods. On the plain to the west of the forts lies the largest concentration of temporary camps recorded in Britain, almost all recorded through cropmarks. The location is of key importance on the isthmus and is also close to the Roman road northwards to Stirling and Ardoch. A further large camp lies across the River Carron at **Househill Dunipace**.

The camps can be divided into five areas (the first and third representing the main clusters): **Lochlands**, the main complex of camps west of the railway to Stirling, now situated largely under an Industrial Estate; **Bogton**, lying between Wester Carmuir and Lochlands; **Three Bridges**/Carmuir, the grouping of camps around the merging of the railway lines, west of Camelon fort; **Wester Carmuir**, which is usually regarded as one of the construction camps for the Antonine Wall; and the large camp at **Househill Dunipace**, across the River Carron.

Some of the camps at **Lochlands Three Bridges** have been interpreted as work and storage depots, possibly relating to a nearby port on the River Carron (Bailey 2000: 476; Tatton-Brown 1980). There have been numerous excavation trenches placed through the various camps at Lochlands, and several plans of the complex have been prepared over the years (for example, RCAHMS 1963: fig 46; Maxfield 1981: fig 1; Maxwell 1991: fig 18.1; Leslie 1995: fig 15; Bailey 2000: illus 1; Jones 2005c: fig 3; Jones 2006: fig 106; RCAHMS St Joseph Collection DC 37270). The area has been partially destroyed by quarrying, with an industrial estate and housing lying over some of the features. These cropmarks demonstrate use and reuse of the promontory, with numerous overlapping camps, some clearly revealing more than one phase of use on excavation.

The complexity of both the cropmark record (with camps recorded since the 1940s) and the multiplicity of

excavated evidence gathered piecemeal over more than 50 years render it almost impossible to be certain of the number of camps on the isthmus, and interpretations differ on the number of camps represented at the main Lochlands site. An interpretation of each camp on the basis of air photographs and known excavated evidence is presented here.

Camp I is the northernmost of the group, lying on a bend in the River Carron, and was first recorded in 1957 by St Joseph from the air (Maxwell & Wilson 1987: 29). Part of the camp has been destroyed by quarrying, and a further part lies under the Lochlands Industrial Estate. But enough was photographed from the air prior to quarrying and development to record that it measured 355m from WNW to ESE by at least 200m, enclosing at least 7.1ha (17.6 acres), possibly some 9.5ha (over 23 acres) if the known entrances on the WNW and ESE sides are central. These two have Stracathro-type gates, and a further oblique traverse has been recorded on the SSW side. Excavations in 1980–1 on the ditch on the ESE side by St Joseph & Maxwell recorded that it was a shallow V-shape, just over 2m wide and 0.5m deep (RCAHMS St Joseph Collection: Notebook 8; DC 37273); at the gate on the SSW side it had a stepped profile, some 2.1m wide and 0.9m deep (RCAHMS St Joseph Collection: Notebook 8; DC 37274).

Camp II lies immediately to the south of camp I, with which it probably intersects, but the relationship between the two was not determined by St Joseph & Maxwell's excavations because of the presence of (probably later) rubbish pits. Some 190m of the ESE side towards a gate with an external *clavicula* has been recorded, together with the rounded southern corner angle and over 115m of the SSW side. The west portion of the camp may have been eroded by the River Carron, but if the ditch continues its course to the Carron, the camp could measure at least 145m in width. If the gate in the ESE side is in the centre of that side, the transverse measurement could be as much as 380m, and the camp would enclose at least

5.5ha (13.6 acres). Excavations by St Joseph & Maxwell recorded that the ditch on the ESE side was just under 2m wide and 0.5m deep (RCAHMS St Joseph Collection: Notebook 8; DC 37276); at the *clavicula* its profile stepped down to a small U-shape, which measured some 0.8m in width and 0.4m in depth within a ditch up to 2.3m in width and 0.9m in depth; it had burnt material in its fill (RCAHMS St Joseph Collection: Notebook 8; DC 37275). They also recorded that the camp ditch exhibited single-phase use.

Two linear cropmarks lie within this camp, almost parallel to its ESE side. A further linear cropmark (the ditch of camp VI) lies immediately south of this camp and may well enclose the entire promontory on which camps I and II lie.

Camp III was the earliest recorded camp of the group (in 1949 by St Joseph from the air (1951a: 62)), but the majority of this camp now lies under the Industrial Estate. It measures 473m from north-east to south-west by 310m transversely, enclosing 14.6ha (36 acres). It has been subjected to repeated excavations since the 1950s, when probing by Feachem failed to locate the north corner (1958: 336–7). But he was almost certainly probing in the incorrect place owing to an inaccurate plan caused by confusion of the cropmarks for camps III and IV (Feachem 1958: fig 7; RCAHMS 1963: fig 46‘C’). However, his probing did give more information about the location of the south-east side (Feachem 1958: 337; RCAHMS 1963: 111). In the 1960s, Thomson also reported that his attempts to locate the north-west angle (presumably the same north angle as Feachem) were unsuccessful. He stated that enough of the north and west sides could be seen of the camp, but produced no overall plan, quoting the incorrect plans from RCAHMS 1963 and Feachem 1958 (Thomson 1968: 259–60). He also excavated on the south-west side of the camp but failed to locate the ditch here, reporting a few sherds of amphorae and post-medieval pottery (1968: 261). However, excavations in the 1980s by St Joseph & Maxwell recorded that the ditch on the north-west side was V-shaped, 1.5m in width and 1.15m in depth. After silting it was recut with a gentler profile and squared drainage channel (Frere 1983: 287–8). Further trenches in the south part of the north-west side suggested that the ditch was recut twice (Frere 1984: 275). The excavators interpreted these as follows: the first-phase ditch was V-shaped with iron pan and turf in the fill, one layer of turf possibly from the rampart of phase two or three which lay outside it. The second-phase ditch had a narrow square channel

in some sections, but was V-shaped in the south section. The third-phase ditch, which was V-shaped, was dug on almost the same alignment as the second phase, only 0.45m away (Maxwell & Wilson 1987: 39). In the south section, the outer ditch (phase three) cut through an earlier pit, which may be Roman in date (RCAHMS St Joseph Collection: Notebook 8; DC 37279).

Numerous pits are visible in the northern part of the camp, close to its north corner, and at least one was cut by the camp ditch (Frere 1983: 287–8). The pits were full of charred wood, ashes and burnt earth and, although there was no secure Roman dating, the excavators thought that they might be Roman in date (Maxwell & Wilson 1987: 39).

Later excavations in 1998 on the eastern part of the south-east side close to the corner revealed at least two phases of Roman ditch, with the possibility of an earlier ditch which may also be Roman. This early ditch had a flat base and was 0.95m in width and appeared to have silted up naturally. The next phase of ditch was V-shaped with an ankle breaker in places, and was up to 1.5m in width and 0.9m in depth. It had also silted up naturally. The third phase was V-shaped with a flat base, measuring up to 1.9m in width and 0.9m in depth. Again, this had silted up naturally. A field oven was recorded just inside the interior, with a surface fill of burnt clay, charcoal and ash (Glendinning 1998b & c). More recently, excavations by Bailey on a short stretch of the north-west side recorded two parallel V-shaped ditches and field ovens (Bailey 2007; EAFS 2009).

The intricacy of the ditches uncovered goes some way to explaining the complexity of the cropmark record, particularly in the southern part of the camp, which probably had a relationship with camps IV, V and possibly VI (assuming that IV and V are camps and not annexes of some sort). In the instances where a second ditch was dug through the existing ditch, the excavators have reported that there was considerable silting before the second ditch was dug. However, Bailey’s excavations on the parallel ditches led him to suggest that they were contemporary with one another (2007).

Camp IV protrudes from the western corner of camp III, and part of the north-west side at the entrance and *titulus* was excavated by Thomson, who thought that he was excavating camp III (1968). The intersection between camps III and IV has not been excavated, and therefore it is not possible to assess their relative chronology. The majority of the camp now lies under the industrial estate, but it measures 166m from north-east to south-west; an entrance gap with *titulus* lies in the centre of the north-

west side. Its transverse dimension is assumed to be about 142m, if one of the linear cropmarks within camp III represents the south-east side of this camp; other lines presumably represent other occupations of the site (such as camp V). This would result in a camp enclosing some 2.4ha (6 acres).

The excavations by Thomson in 1965–6 (on camp IV) recorded that the camp ditch was V-shaped, measuring some 3m in width and 0.6m in depth. The *titulus* was about 12.5m in length and situated some 7.6m from the entrance; its ditch was V-shaped, measuring 2m in width and 0.5m in depth. On the south side of the entrance gap, the camp ditch turned inwards at right angles to the camp and was V-shaped although less regular (here numbered camp V, and visible on the air photographs). This ditch is crossed by another ditch, some 18m from the entrance, also V-shaped and measuring about 1.4m in width and 0.5m in depth. This ditch is not visible on the air photographs of the area and its course is unknown (Thomson 1968). Maxwell & St Joseph also excavated trenches on the south-west and (probable) south-east sides of this camp; all the trenches appear to have been single phase (RCAHMS St Joseph Collection: DC 37272, DC 37277). The ditch measured up to 2.15m in depth (Frere 1984: 275). They also recovered an *as* of Vespasian in the upper filling of the ditch (Frere 1984: 275). In 2004, further excavations took place, probably on this camp, recording that the ditch was U-shaped, some 2.4m in width and up to 0.7m in depth. Finds from this excavation recorded amphorae, mortaria, and metal artefacts including nails, bar fragments and a conical ferrule used for the protection of spear butts. The pottery was given a broad Flavian date (Engl forthcoming). No recutting of this ditch was observed in either excavation, and micromorphological examination suggested that the ditch was deliberately and rapidly back-filled (Engl forthcoming). Two probable ovens were also recorded, one of which cut the ditch, both of which produced radiocarbon dates from the 1st century AD (Engl forthcoming).

Thomson's excavations on the ditch of the *titulus* recorded the presence of a *denarius* of Hadrian, but, as noted by Thomson, its presence in the upper filling reduces its validity (Thomson 1968: 262).

Excavations in 2002 by Bailey in the vicinity of camps III and IV recorded three ditch sections and a field oven (Hunter 2003: 302).

A linear cropmark some 30m inside the north-west side of camp IV (therefore between III and IV) was recorded as 1.6m wide and 0.8m deep; it also demonstrated evidence for deliberate filling with rampart material

(RCAHMS St Joseph Collection: DC 37277; Frere 1984: 275). This suggests that it was earlier than camps IV and V, and it may relate to camp VI, or another camp (as yet unidentified).

Camp V appears to be a reduction of camp IV, but the location of the south-east side of both camps is unclear. If they shared the same south-east side, then the camp probably measured about 142m from north-west to south-east by 82m, enclosing 1.2ha (3 acres), but the ditch showed no sign of recutting, so they may not have shared this side, unless the timescale between the two was very short. Thomson's excavations recorded the 'inturn' from camp IV, which presumably represents the north-east side of camp V. The ditch was V-shaped but inconsistent, and flat-bottomed at one point (1968: 262). But his excavations did not demonstrate a clear separation between the north-west side of camp IV and the 'inturn' (which is presumed to represent camp V) so the evidence defining this camp is not conclusive.

Immediately south of camp II lies a further slight cropmark which continues the line of the south-west side of camp III farther to the north-west. This camp (VI) could enclose the entire promontory on which camps I and II lie (and possibly camp III), although its south-east side could be one of the linear cropmarks visible in camp III. The camp is likely to measure at least 305m, and possibly as much as 640m, on its south-west side by possibly 470m, suggesting a camp which could be as large as 25.4ha (63 acres). Excavations in 1988 by Maxwell & St Joseph on the slight cropmark on its south-west side recorded a sharp V-shaped ditch of a single phase, some 1m in width and 0.5m in depth (Frere 1989: 271). It was demonstrated to be earlier than camps III and IV (and therefore probably V), and Maxwell has suggested that it may also be earlier than I and II owing to its location (Frere 1989: 271). The excavated ditch lying 30m within camp IV (above) may relate to this camp.

A series of pits are visible almost in a line some 30m south of the south-west side of this camp. Excavation revealed one to be 1m by 1.5m in width and 0.75m in depth with vertical sides and a fill of sand and gravel and carbon flecks, similar to the pits excavated in Lochlands III. These may indicate the presence of a larger camp on the plateau (Frere 1989: 271), although pits need not necessarily be located within the camp perimeter (see **Inchtuthil** and **Drumlanrig II**).

South of the complex of camps at the industrial estate, and bisected by the small Lochlands Loan road, lies the camp of **Bogton**, recorded in 1975 by St Joseph from the

air (1977: 135; Maxwell & Wilson 1987: 39). It measures 194m from NNE to SSW by 106m and enclosed just over 2ha (5 acres). No excavations have been conducted on this camp.

The general lack of excavation on the intersections of the cropmarks at Lochlands, (despite the attempt on camps I and II), means that it is difficult to assign any meaningful chronology to the group. However, camp VI was earlier than camps III, IV and V, and camp V is almost certainly later than camp IV. The ditch of camp III was recut on at least one occasion, and this camp appears to have been deliberately sited to avoid camps I and II. From the recutting of the ditch of camp III, it is not

possible to determine if it was deliberately filled for camp IV, but it is likely that at least the final phase of use of camp III was later than camp IV. Maxwell postulated that camp VI could be earlier than camps I and II (Frere 1989: 271), but this was largely owing to its location. It appears to be the only camp that uses the same ground as camps I and II, and as both demonstrated evidence for deliberate in-filling, this might suggest that camp VI was later than camps I and II. Thus it appears that camps I and II may have been the earliest on the Lochlands site with the area immediately to the east representing the main occupation site that was used and reused on several occasions.

Lochlands, Three Bridges (illus 47 & 167)

Lochlands, Three Bridges I: NS 8581 8106
NS 88 SE 22

Lochlands, Three Bridges II: NS 8573 8105
NS 88 SE 22

Lochlands, Three Bridges III: NS 8572 8097
NS 88 SE 22

Lochlands, Three Bridges IV: NS 8580 8096
NS 88 SE 22

Lochlands, Three Bridges V: NS 8570 8088
NS 88 SE 22

In the area to the south of Lochlands, west of Camelon, lies a further series of camps known as 'Three Bridges'; the majority lie in a triangular zone within three converging railway lines and have been recorded since the 1950s (RCAHMS 1963: 111). The area to the south of this triangle has been subject to several excavations in recent years by Bailey (Bailey 2000; Hunter 2003: 302). In addition, Price has recorded the ditches of possible camps just east of the railway triangle, north-west of the fort of Camelon, and these are probably the eastern part of one or more camps at Three Bridges, although some may relate to out-works for the fort (Price 1974; 1977). Camp fires were also found (Price & Price 1973), and one of the proposed camp ditches was up to 2.6m in width and up to 1.2m in depth (information in RCAHMS).

The results of Bailey's excavations and the cropmark evidence suggests that at least six camps of varying shapes, sizes (and probably functions) have been recorded, along with the camp known as **East Carmuirns**, which is probably larger than has previously been suspected (*contra* Feachem 1958: fig 6; RCAHMS 1963: fig 46 'F').

Bailey's excavations at Three Bridges have significantly expanded our knowledge of the camps in this area. Some of the camps excavated tied up with the known evidence

from cropmarks; others represented new features. At least two of the camps may have been backfilled, one (probable camp VI) possibly to make way for a new camp in pretty much the same location (IV). Another showed evidence for recutting and therefore more than one phase of use (V). Potential annexes were also identified, and a series of pits excavated, identified as ovens and possibly kilns. Some of the 'camps' appeared to be 1st century AD in origin, owing to the identification of Flavian pottery in the ditch of camp IV. Bailey suggested that many of the 'camps' were probably work and stores depots, owing to the presence of pits indicating industrial activity at the site (2000). This also fits with the report of a series of 'fire pits' to the east of the railway, east of camp I, originally proposed as cremation pits (Breeze & Rich-Gray 1980). Presumably some of the Three Bridges camps may have related to the Antonine occupation of the area, but there is no datable evidence to confirm this at present.

Camp I is the north-eastern of the group between the three railway lines, and measures 80m by probably at least 115m, although the location of the east side is unknown and no entrances are visible. Camp II, to the west, may be an annexe to this small camp, or alternatively one of the two may represent a reduction of an existing camp. This second camp measures 83m by 70m, therefore enclosing

almost 0.6ha (1.4 acres), although if the area of camp I is included then it measures about 82m by at least 180m. There are hints of a possible *titulus* on the north side, close to the ditch separating camps I and II.

Camp III lies immediately SSW of camp II and is almost square in form, measuring 57m by 56m, enclosing 0.3ha (0.8 acres). No gates have been recorded. To its east lies camp IV, now partially under an industrial estate. About 170m of its west side and 150m of the north have been recorded as cropmarks. The west side of this camp is often illustrated as running farther to the south (down to the west of the **East Carmuir**s camp, for example, Bailey 2000: illus. 1), but this could not be confirmed through the available air photographic evidence. Excavations by Bailey in 1987 and 1993 on the west ditch recorded that it was flat-bottomed, 0.63m wide and 0.16m deep and was heavily plough-truncated in one sector (Frere 1988: 426–7). In another, it was some 0.8m wide and 0.5m deep and may have been recut. An entrance gap was identified, with a narrow shallow ditch between, and some 8.2m to the west a truncated pit was located which was interpreted as the possible remnants of a *titulus* (Bailey 2000: 473–4). Flavian pottery was found in the ditch of this camp, and on the ground surface nearby (Bailey 2000: 487).

South of camp III and west of IV lie two sides of a further camp (V), again now partially under an industrial estate and housing. Some 65m of the north side, the rounded north-west corner angle and at least 140m of the west side have been recorded, the majority through aerial survey with excavations by Bailey recording a further stretch of the ditch to the south. He suggested, on topographical grounds, that the camp could measure some 420m in length, but also commented that it could represent part of an annexe or fort (2000: 483). The excavated ditch

was up to 3.9m in width and 1.2m in depth and may have been deliberately backfilled. It also showed evidence for a recut (Keppie 1994: 257; Bailey 2000: 475–8). A series of pit groups were recovered, which produced artefacts and a radiocarbon date in the Flavian period. The excavator suggested that some may be ovens or kilns (Bailey 2000: 484–5).

LOCHLANDS: DISCUSSION

It is clear from the aerial and excavated evidence that the promontory represented not only a major gathering ground for troops on the march northwards, but also was a strategic location for the Antonine Wall. The presence of Flavian finds at both concentrations of camps on the promontory (including a Flavian radiocarbon date from charcoal in a pit group at Three Bridges: Bailey 2000: 483) attests to a certain amount of 1st century AD activity in the area, and is supported by the likely dating of the two camps at Lochlands with Stracathro-type gates. The denarius of Hadrian from Lochlands IV, while not comfortably stratified, also attests to a later presence, possibly relating to the Antonine Wall and the fort of Camelon. Lying beyond the frontier, the area would have provided a greater level of security than many sites north of the Wall. While the finds assemblage is small, it is significant, particularly when placed in the context of artefacts from Roman camps (Hunter forthcoming).

The Lochlands area was clearly important in Roman times, probably both in terms of supplying the army and industrial activity, as well as being a nodal point for campaigns. It was clearly a major gathering ground for troops on the march northwards. The use of the Three Bridges area as a potential industrial zone may relate to a nearby port on the River Carron serving the fort at Camelon (Bailey 2000; Tatton-Brown 1980).

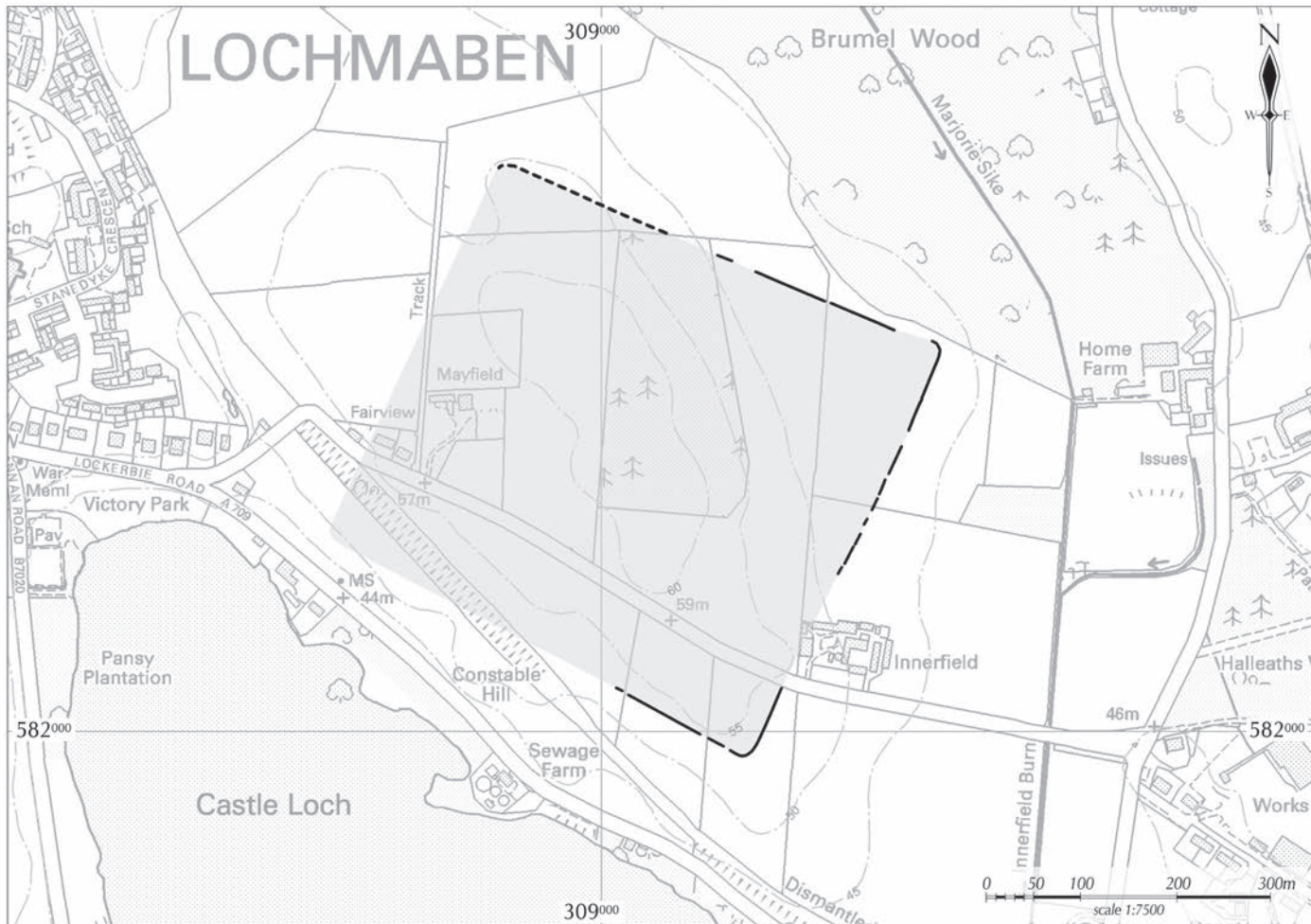


Illustration 168

Lochmaben. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Lochmaben (illus 47 & 168)

(Innerfield)

NY 0905 8227 NY 08 SE 28

Discovered in 1967 by St Joseph from the air, this camp lies on level ground above Castle Loch, just west of the River Annan, some 2km west of the Roman fort at Ladyward and close to the line of the Roman road from Annandale towards the River Nith. Parts of three sides have been recorded through cropmarks, with trenching by St Joseph in 1985 recording the remainder of the north-east side together with the north corner angle (RCAHMS St Joseph Collection: DC 39372;

depicted as a dashed line on illus 168). These reveal that the camp measured just over 500m from north-west to south-east by 465m transversely and enclosed 22.8ha (just over 56 acres). Possible entrance gaps are visible in the north-east and south-east sides. Drawings of sections of excavated ditch held by RCAHMS indicate that on the north side it was V-shaped, about 1.5m wide and 0.6m deep (RCAHMS St Joseph Collection: DC 39373).

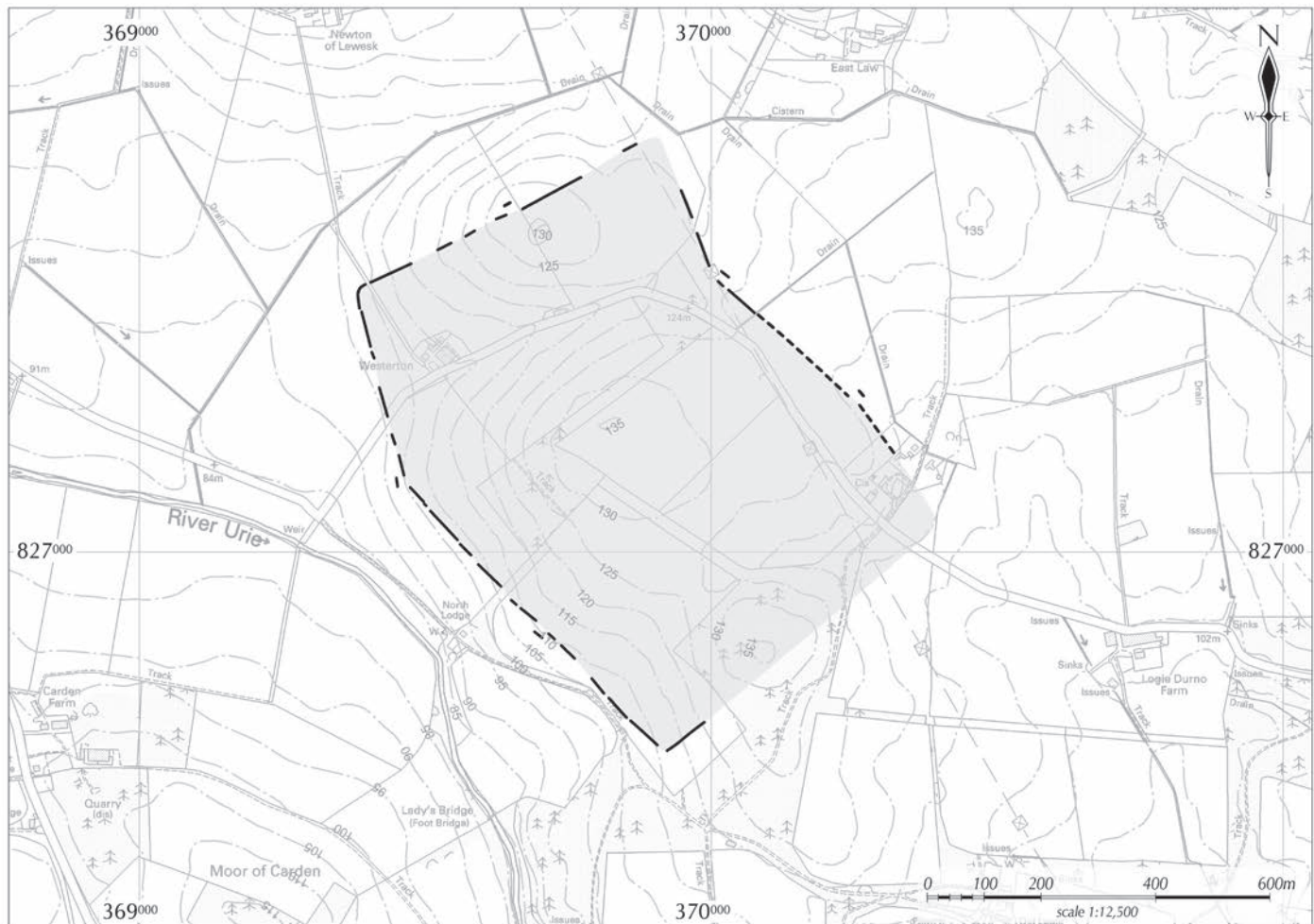


Illustration 169
Logie Durno. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Logie Durno (illus 47, 169)
(Durno; Bennachie)

NJ 6980 2720 NJ 62 NE 31

The camp at Logie Durno was discovered from the air by St Joseph in 1975 (St Joseph 1977: 141), just to the east of the River Urie, some 5km from Mither Tap of Bennachie, which dominates the surrounding landscape. It lies on ground that slopes quite significantly, with a 35m height-difference between the highest and lowest points within the camp; its perimeter is slightly irregular in form. The farms of Easterton and Westerton lie within the camp, which is now under arable and improved pasture. Nothing appears to survive of the camp above ground, although a very low swelling on the north-east side (not depicted on illus 169) may represent the ploughed out remains of a rampart.

Part of the camp has been visible as cropmarks, with much of the rest of the perimeter established by excavations between 1975 and 1977 and depicted as a dashed line on illus 169 (St Joseph 1978a). It measures about 959m from north-west to south-east by about 653m transversely, enclosing an area of some 58.6ha (almost 145 acres), and is the largest camp north of the Forth–Clyde isthmus. The excavated ditch was usually V-shaped, up to 3.65m in width and 1.4m in depth (St Joseph 1978a: 273). Three *tituli* are clearly visible on the air photographs, two in the south-west side (where there is a significant change of angle at the northern gate) and one on the northern part of the north-east side, also at a change of angle. Two

further *tituli* were recorded through excavation, in the southern part of the north-east side and the centre of the north-west side. That on the north-west side had a shallow ditch, some 0.5m in depth and set about 15m from the entrance. Illustration 169 includes the results from St Joseph's excavations (1978a).

St Joseph used the evidence of Logie Durno's size and location to build up an argument for the area as the location of Tacitus' famed battle of Mons Graupius, with nearby Bennachie as the titular hill (1978a).

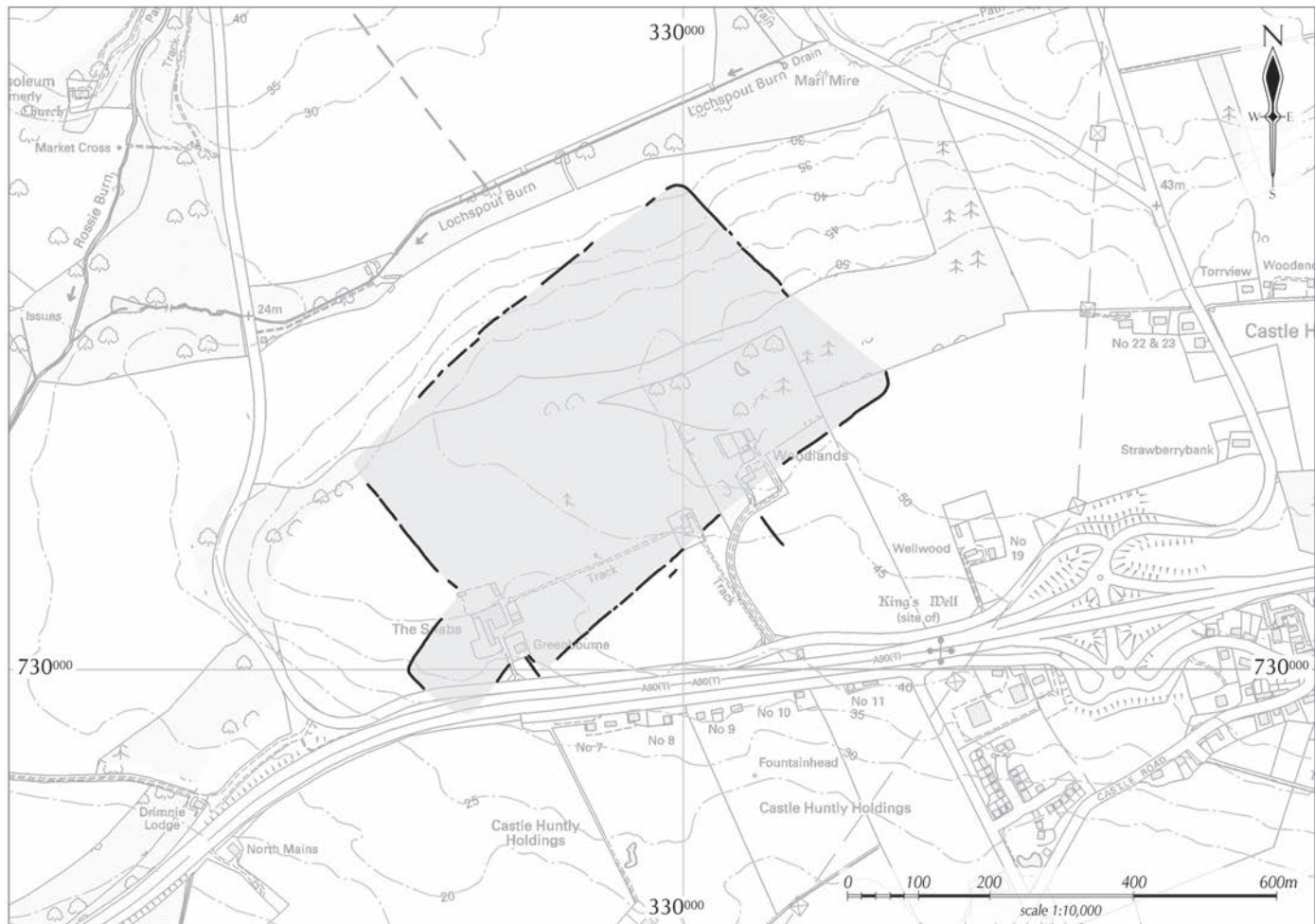


Illustration 170

Longforgan. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Longforgan (illus 47 & 170)

(Greenbourne; The Snabs)

NO 2988 3042 NO 23 SE 18

The camp at Longforgan was discovered from the air by St Joseph in the late 1960s (St Joseph 1969: 111), sited on a low ridge on the south side of the Sidlaw Hills, west of the village of Longforgan. The camp at **Invergowrie** lies just over 4km to the east, and the Firth of Tay some 3km to the south. The ground on which the camp lies drops away to the Lochsprout Burn to the north.

Parts of all four sides are known through the crop-mark record, and the camp measures 622m from north-east to south-west by 408m transversely, enclosing 25ha (62 acres). An annexe is visible on the south-west side, measuring some 136m by 114m and enclosing a further 1.5ha (3.7 acres). Entrance gaps are visible in the cropmark on the north-east and south-west sides;

on the south-east side a gap is protected by a *titulus*, and a second was identified by excavation on the north-east side.

Excavations have been conducted on various occasions by St Joseph. On the north-east side, the ditch was V-shaped, measuring up to 3m in width and 1.3m in depth with a drainage channel in the bottom. A later drain cut through the ditch. The entrance gap was about 16m in width, and a *titulus* was recorded 13m from the camp with a V-shaped ditch 2.4m in width and 0.9m in depth (RCAHMS St Joseph Collection: Notebook 4). Elsewhere, the ditch was up to 3m wide and 1.4m deep (RCAHMS St Joseph Collection: Notebooks 5 & 8; St Joseph 1970b: 38).

Later excavations in 1994 by Neighbour recorded that the ditch of the annexe was up to 0.6m in depth and up to 1m in width (Keppie 1995: 332). Analysis of particle size within the fill suggested that the ditch was backfilled fairly quickly, although it was not possible to say whether this

was owing to deliberate backfilling or rapid weathering. A small circular scoop of uncertain date or function was recorded in the interior of the annexe, but no datable material was recovered (Neighbour 1998).

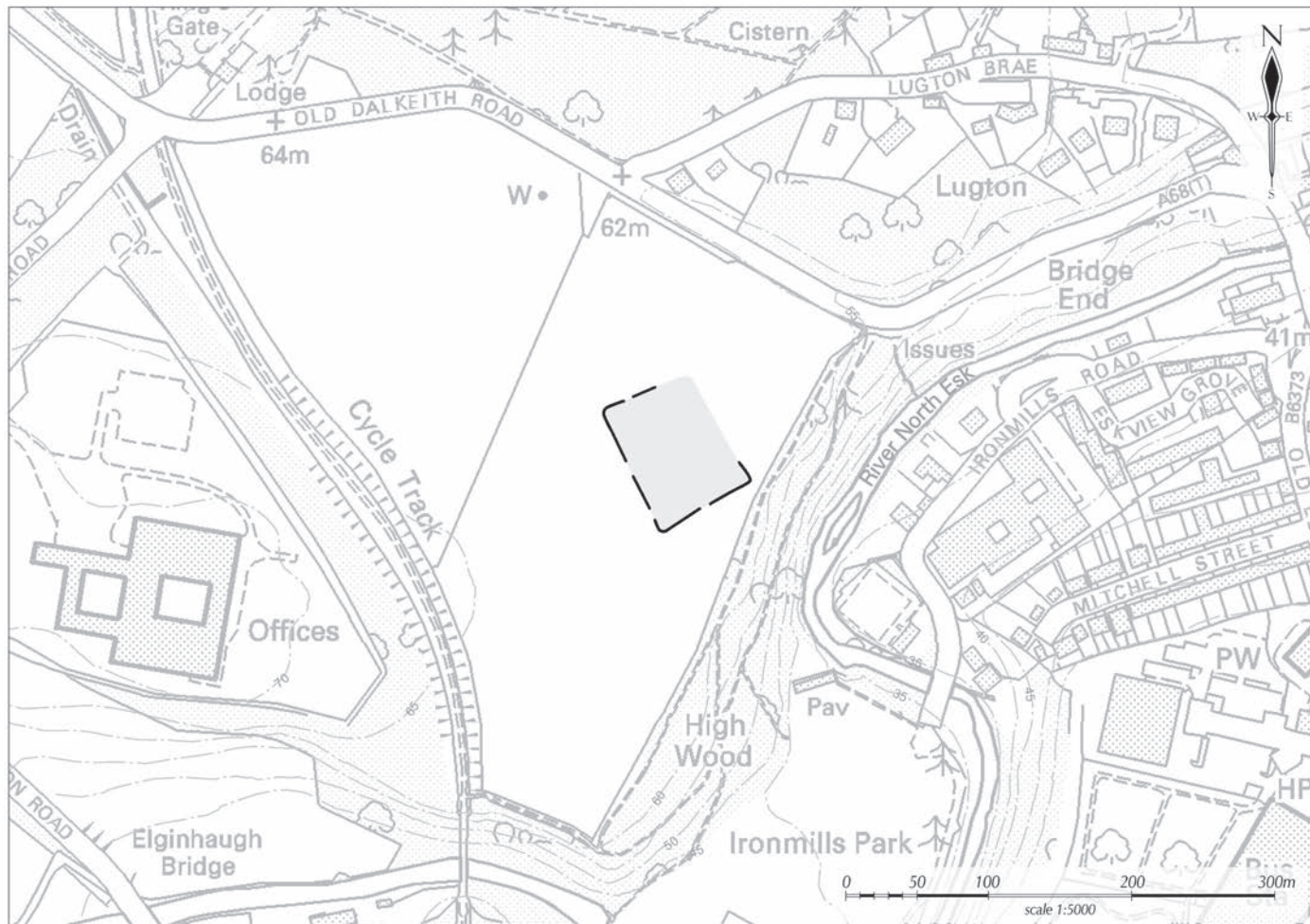


Illustration 171

Lugton. The Roman fort at Elginhaugh lay under the 'Offices' to the west. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Lugton (illus 47 & 171)

(Elginhaugh)

NT 3253 6745 NT 36 NW 97

The camp at Lugton was discovered from the air by Maxwell in 1984 (Frere 1985a: 265), lying on a plateau above a loop of the River North Esk on the west side of Dalkeith, about 250m east of the Flavian fort of Elginhaugh (now lying under the 'Offices' on illustration 171; Hanson 2007). The camps at **Eskbank** lie some 600m to the south-west across the River North Esk.

The camp lies in a pasture field and parts of all four sides are visible as cropmarks. It measures about 90m from NNW to SSE by 72m transversely, enclosing an area of some 0.6ha (1.5 acres). No clear entrances are known although there are possible candidates in the south-west and south-east sides.

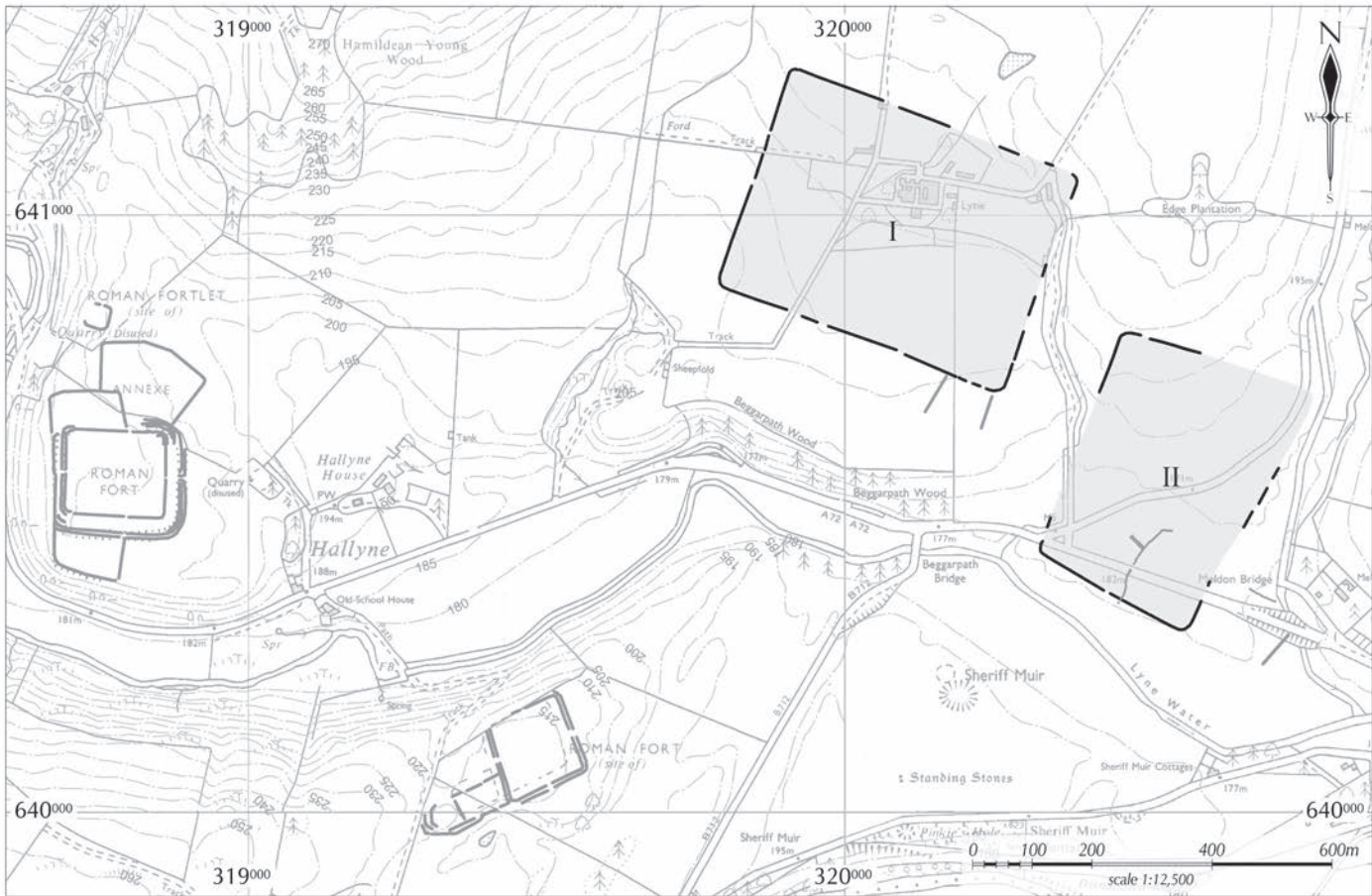


Illustration 172

Lyne I–II and other cropmarks in the area including the Roman forts at Lyne and Easter Happrew and the Meldon Bridge pit-enclosure (within Lyne II). Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Lyne (illus 47 & 172) (Meldon Bridge)

Lyne I: NT 2005 4090
NT 24 SW 20

Lyne II: NT 2053 4050
NT 24 SW 50

Two camps have been recorded through cropmarks east of the Antonine fort at Lyne, across the Lyne Water from the Flavian fort at Easter Happrew. The western of the two, camp I, was discovered in 1949 by St Joseph from the air (1951a: 57) and is sited on a gentle south-facing slope about 1km east of the fort. It measures 509m from WNW to ESE by 385m transversely and enclosed 19.7ha (almost 49 acres). Entrance gaps are clearly visible in all four sides, with a slight change of angle at one of the gaps in the SSW side. The gates are depicted as being protected by *tituli* by RCAHMS (1967: 175, fig 186) but none is visible on the air photographs.

Two linear cropmarks are visible protruding from the east part of the south side of the camp, but are not parallel and do not appear to form part of an annexe.

Camp II lies about 150m south-east of camp I, a little lower down the same south-facing slope; its SSW side lies less than 50m from the Lyne Water. First recorded in 1971 by St Joseph from the air (1973: 216–17), it measures about 431m from NNE to SSW by about 288m (but the sides are not parallel to one another) and encloses around 13.3ha (33 acres). An entrance gap is visible in the centre of the SSW side, but not enough of the complete perimeter of the camp is visible to enable

the identification of further gates. The camp overlies a late Neolithic pit-defined enclosure, and sections of the camp ditch were examined during excavations of the enclosure in 1974–7 (Speak & Burgess 1999). These recorded that the ditch of the camp on the south side was severely eroded and only 0.2m deep. On the east side it was up to 1m wide and 0.5m deep (Hodgson 1999: 47–9). The camp ditch also cut through the ditch of the

Roman road, and was therefore later in date. A cooking pit with two phases of firing was identified, 0.35m deep and 2.4m by 1.1m across (Hodgson 1999). Amphora sherds were found in the ditch and cooking pit, one of which was dated to the late 1st through the 2nd century AD (Greene 1999), but a recent reassessment indicates a Flavian date (Wallace pers comm).

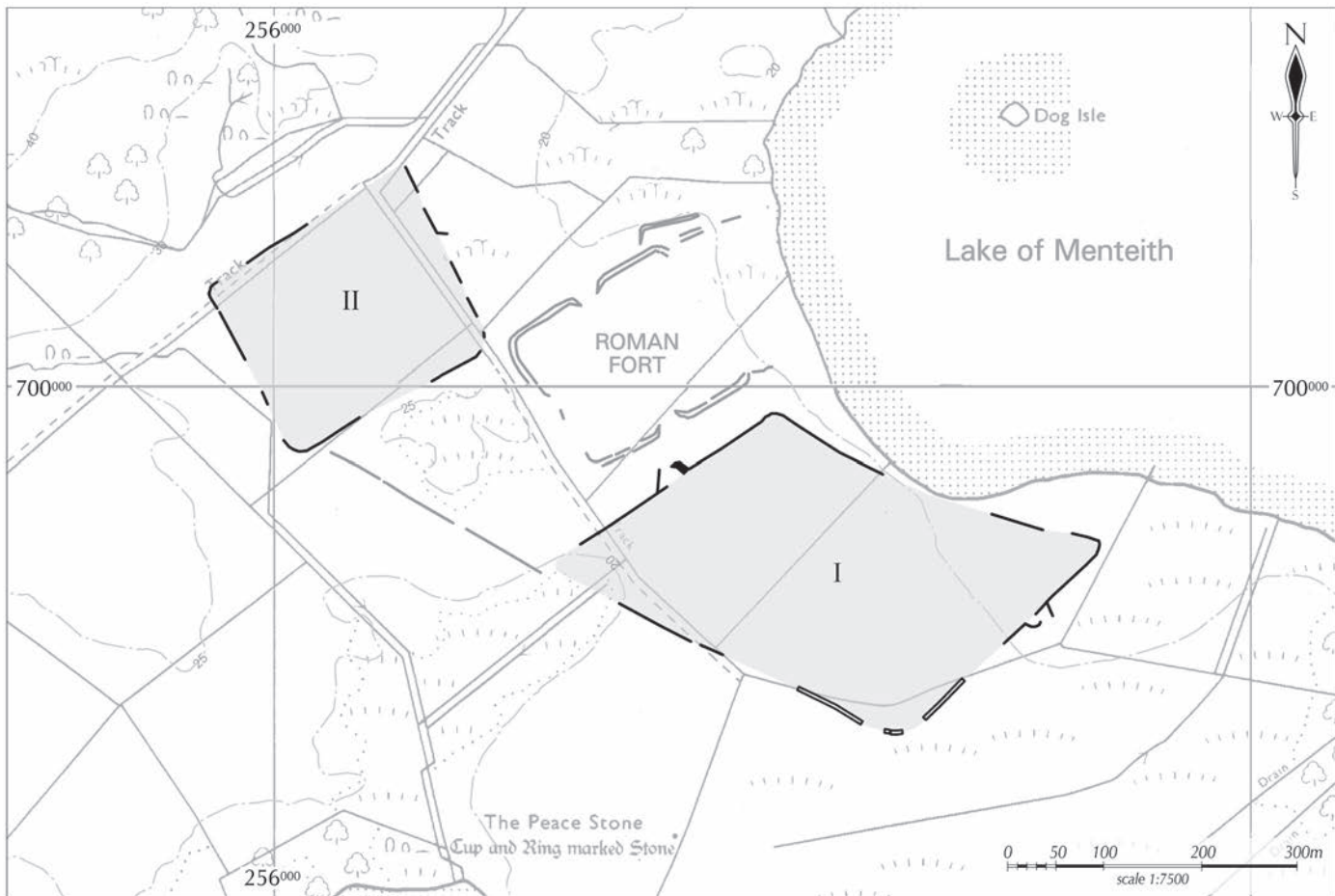


Illustration 173

Malling I-II, the Roman fort and annexe and outer linear cropmark. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Malling (illus 36, 47 & 173)
(Lake of Menteith)

<i>Malling I:</i> NS 5656 9980	<i>Malling II:</i> NN 5606 0008
NS 59 NE 13	NN 50 SE 16

On the west side of the Lake of Menteith lies a Roman fort and two camps at Malling, all revealed through cropmarks. The fort was discovered from the air by Wilson in 1968 (Wilson 2005:67–8; St Joseph 1969) with camp I discovered during reconnaissance by Cambridge the following year (St Joseph 1969: 223–4) and camp II by Maxwell in 1981. The two camps sandwich the fort, and an outer work with an entrance gap runs for some 250m connecting the two and probably controlling access to the fort.

Camp I lies immediately south-east of the fort and is an irregular parallelogram in form, measuring about 370m from north-west to south-east by 260m, enclosing 8.9ha (22 acres). Stracathro-type gates are visible in its north-west and south-east sides. Stretches of the south-

west and south-east sides survive in woodland, where the rampart is up to 0.6m high and 3.5m wide, accompanied by a ditch some 2m wide and 0.4m deep. St Joseph placed a section through the south-west side of the camp in 1969 and recorded that the ditch was small, accompanied by a rampart some 0.45m high and 0.3m wide (RCAHMS St Joseph Collection: Notebook 5).

Camp II lies immediately west of the fort and measures about 235m from north-east to south-west by 195m, enclosing 4.7ha (11.7 acres). An oblique traverse is visible at the entrance on the north-east side of this camp, suggesting that it may have also had Stracathro-type gates. There is a further hint of an oblique traverse on its north-west side (not depicted on illus 173).

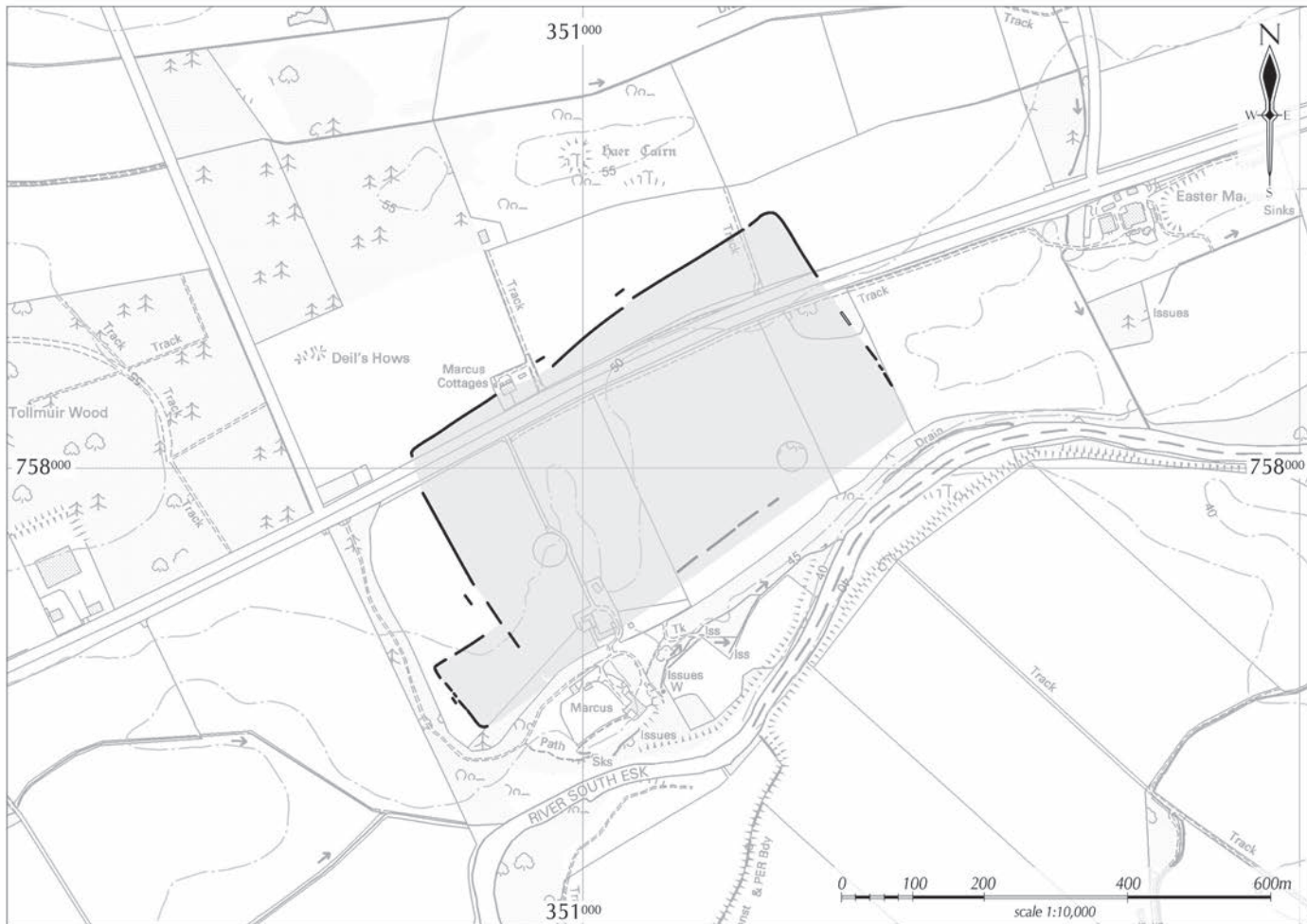


Illustration 174

Marcus. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
Ordnance Survey Licence number 100020548.

Marcus (illus 47, 48, 174)

NO 5110 5800 NO 55 NW 37

The camp at Marcus was first discovered as a cropmark from the air by St Joseph in 1967 (1969: 111), lying on undulating ground to the north of the River South Esk. Just below the south side of the camp the land drops away sharply to the river. The camp at **Finavon** lies 1km to the WSW.

St Joseph noted that the south side of the camp had been eroded by the river (1969: 111). A linear cropmark is visible on air photographs taken in 1977, but this does not appear to represent the south side of the camp, which is probably closer to the edge of the plateau. The camp measures around 635m from south-west to north-east by about 400m transversely, enclosing an area of some 24.6ha (61 acres). There is a small annexe attached to the south part of the south-west side,

measuring 112m by 110m, which encloses an additional 1.11ha (2.7 acres) and has a *titulus* in the centre of its south-west side.

An entrance gap is visible in the centre of the south-west side, protected by a *titulus*, and two more are visible, also protected by *tituli*, in the north-west side.

There is an earthwork in the small plantation on the east side, to the south of the A90(T) (formerly the A94), which may represent the denuded remains of the rampart on this side, although rig and furrow also survives in the plantation which is almost parallel to this earthwork. It is only about 15m in length, is spread about 6m in width and is up to 0.5m in height. There are the traces of a low depression, possibly a ditch, on the east side of the rampart. The plantation

lies on ground above the surrounding fields, possibly indicating the level of truncation of the site by the plough.

Excavations in 1982 on the northern part of the north-east side recorded a U-shaped ditch which was 1.3m wide, surviving to a depth of 0.8m below the surface of the plough soil (Sherriff 1982: 31; information in the RCAHMS). Later excavations in 1987 recorded that the ditch on the north side was about 3.15m in width and 1.2m in depth. The ditch of the west *titulus* on the north

side was V-shaped, measuring about 3.4m in width and 1.4m in depth (Halpin 1992: 177–8).

Halpin also observed a low bank to the west of the excavated *titulus* by Marcus Cottage, 15m south of the *titulus* ditch, measuring about 18m in length, 10m in width and 0.35m in height. The implication is that this bank could also represent the denuded remains of part of the rampart of the camp (Halpin 1992). It therefore appears likely that two small stretches of the rampart of this camp have survived.

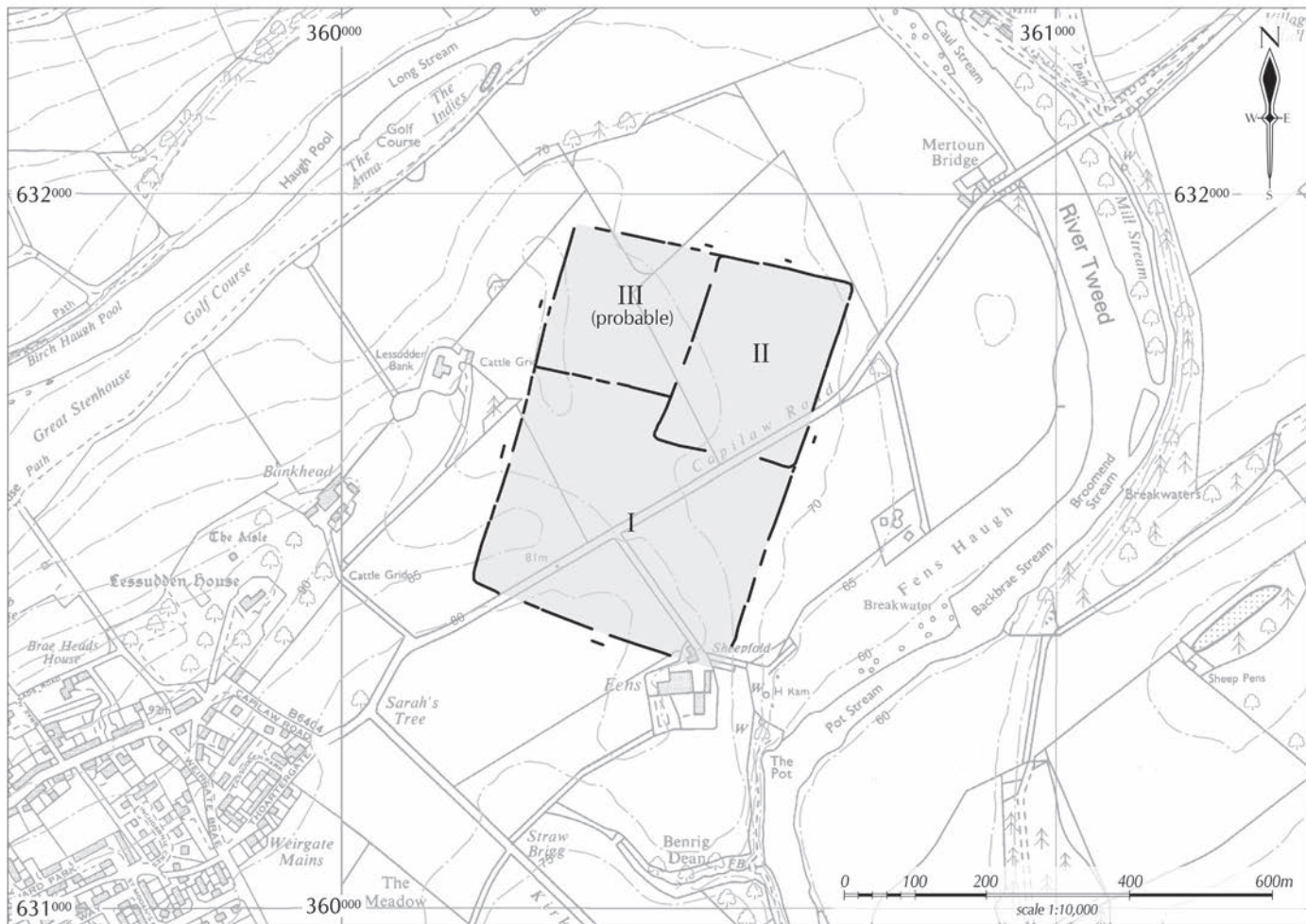


Illustration 175

Mertoun Bridge I–III. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Mertoun Bridge (illus 47 & 175)
(St Boswells)

Mertoun Bridge I: NT 6045 3166
NT 63 SW 29

Mertoun Bridge III (probable): NT 6040 3185
NT 63 SW 29

Mertoun Bridge II: NT 6057 3175
NT 63 SW 29

The camps at Mertoun Bridge lie on gently sloping ground in a loop of the River Tweed about 3.5km south-east of the fort and camps at **Newstead**. First discovered through cropmarks from the air in the 1960s by St Joseph (1965: 78; 1969: 107), two camps are clearly visible, the second occupying the corner of the first. An additional linear cropmark between camp II and camp I may represent a third use of the location.

Camp I measures 552m from NNE to SSW by 387m and encloses almost 21.2ha (52 acres). Entrance

gaps protected by *tituli* are visible on all four sides, with two on the WNW, suggesting that the camp had six in total. A second *titulus* is visible in the eastern part of the NNE side, in the area occupied by camp II, but no corresponding break in ditch can be detected. It is likely that this *titulus* relates to this second camp, which, using part of the NNE and ESE sides of camp I, measures 272m from NNE to SSW by 191m and encloses 5.2ha (almost 13 acres). It seems probable that camp I is the earlier of the two, and that part of

its ditch was filled in to create an entrance for the smaller camp when it was constructed, but this is not visible in the cropmark remains. A further *titulus* on the ESE side is close to the south corner of camp II and probably relates to camp I, although the ditch is also filled in at this point, possibly also for the occupation of camp II.

An additional linear cropmark is visible running from the west side of camp II to the west side of camp I, and this may represent a further occupation. This may have been contemporary with the occupation of camp II, or it could represent a third reuse of the interior of camp I. The area enclosed (4.2ha – 10.4 acres) is almost square (207m by 204m). It may share gates with camps I and II.



Illustration 176

Middlebie Hill I-II. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Middlebie Hill (illus 47 & 176)

Middlebie Hill I: NY 2075 7645
NY 27 NW 3

Middlebie Hill II: NY 2080 7648
NY 27 NW 3

These two camps lie astride Middlebie Hill close to the Annandale Roman road and about 1.5km north-west of the fort and camps at **Birrens**. Camp I was discovered in 1949 by St Joseph from the air as a cropmark; camp II, which lies within the first, was discovered several years later, in 1966 (St Joseph 1973: 217). Camp I measures 503m from north-east to south-west by 345m transversely

and enclosed almost 17.3ha (nearly 43 acres). An entrance gap protected by a *titulus* is visible on its south-east side, towards the north-eastern end. The second camp lies at an oblique angle to the first, but only 290m of the SSE side, the eastern corner angle and about 45m of the ENE side have been recorded so it is not known if and where it intersects its neighbour. No clear entrances are known.



Illustration 177

Millside Wood I–II and Ulston Moor I–II. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Millside Wood (illus 47 & 177)

(Ulston Moor)

Millside Wood I: NT 6910 2210
NT 62 SE 44

Millside Wood II: NT 6906 2207
NT 62 SE 44

The two cropmark camps at Millside Wood lie on the north-east side of Dere Street, opposite the camps of **Ulston Moor** and a little way from the fort and camp at **Cappuck**. Camp I was first discovered in 1971 by St Joseph from the air (1973: 216) and measures at least 510m from south-west to north-east by 384m. It enclosed at least 19.4ha, and an assessment of the topography together with the morphology of the camp suggests that it may have enclosed just over 20ha (50 acres). Probable entrance gaps are recorded in the north-west, south-west and south-east sides; that on the south-east side also possesses a *titulus*. A second camp (II), recorded in 1976 by

Maxwell from the air (RCAHMS 1976: 84), lies wholly within camp I, but does not reuse any part of its perimeter. This small camp measures 174m from NNE to SSW by 138m and encloses almost 2.4ha (nearly 6 acres). Part of the perimeter of the ESE and NNE sides is reflected in the edge of the Millside Wood plantation (also see above, section 7h). A further small camp or annexe is attached to its north-west side, but the relationship between these two cannot be determined beyond the reuse of one side. The annexe measures approximately 60m by c 40m, enclosing an additional 0.24ha (0.6 acres).

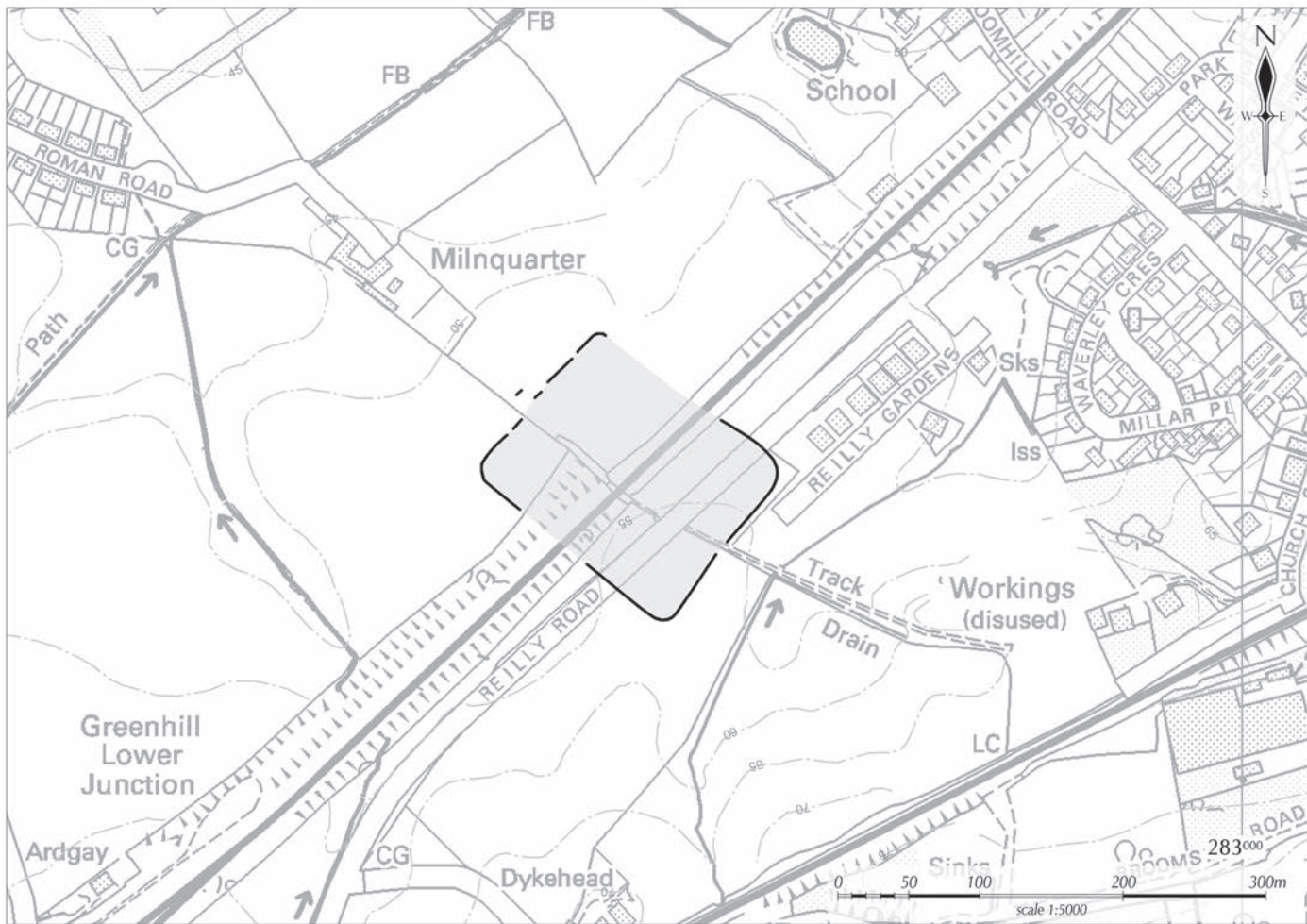


Illustration 178

Milnquarter. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Milnquarter (illus 47 & 178)

(Bonnybridge)

NS 8257 7935 NS 87 NW 5

The camp at Milnquarter lies in a flat area of ground bisected by the Stirling-to-Glasgow railway line, and also by a disused connecting line that ran to an industrial complex just to the north. It lies about 400m south of the Antonine Wall, at a point where the Wall kinks between the fort at Rough Castle and the fortlet at Seabegs Wood. A further fortlet has been postulated in this area (Hanson & Maxwell 1986: 122), but no trace has yet been found.

The camp was first recorded by St Joseph in 1953, with further information gleaned from RAF air photographs (Feachem 1958: 330; RCAHMS 1963: 107). All four

corners and parts of all four sides of the camp have been recorded through cropmarks, and it measures 168m from north-west to south-east by 138m, enclosing an area of almost 2.3ha (5.6 acres). A *titulus* is visible in the centre of the north-west side, and Feachem recorded other *tituli* on the north-east and south-east sides through probing (Feachem 1958: 331–2) thus suggesting that the camp faced north-west towards the Wall.

A small excavation was undertaken in the interior of the camp in 1995 owing to the removal of an electricity tower, but no Roman features were recorded (Dunwell & Finlayson 1995).

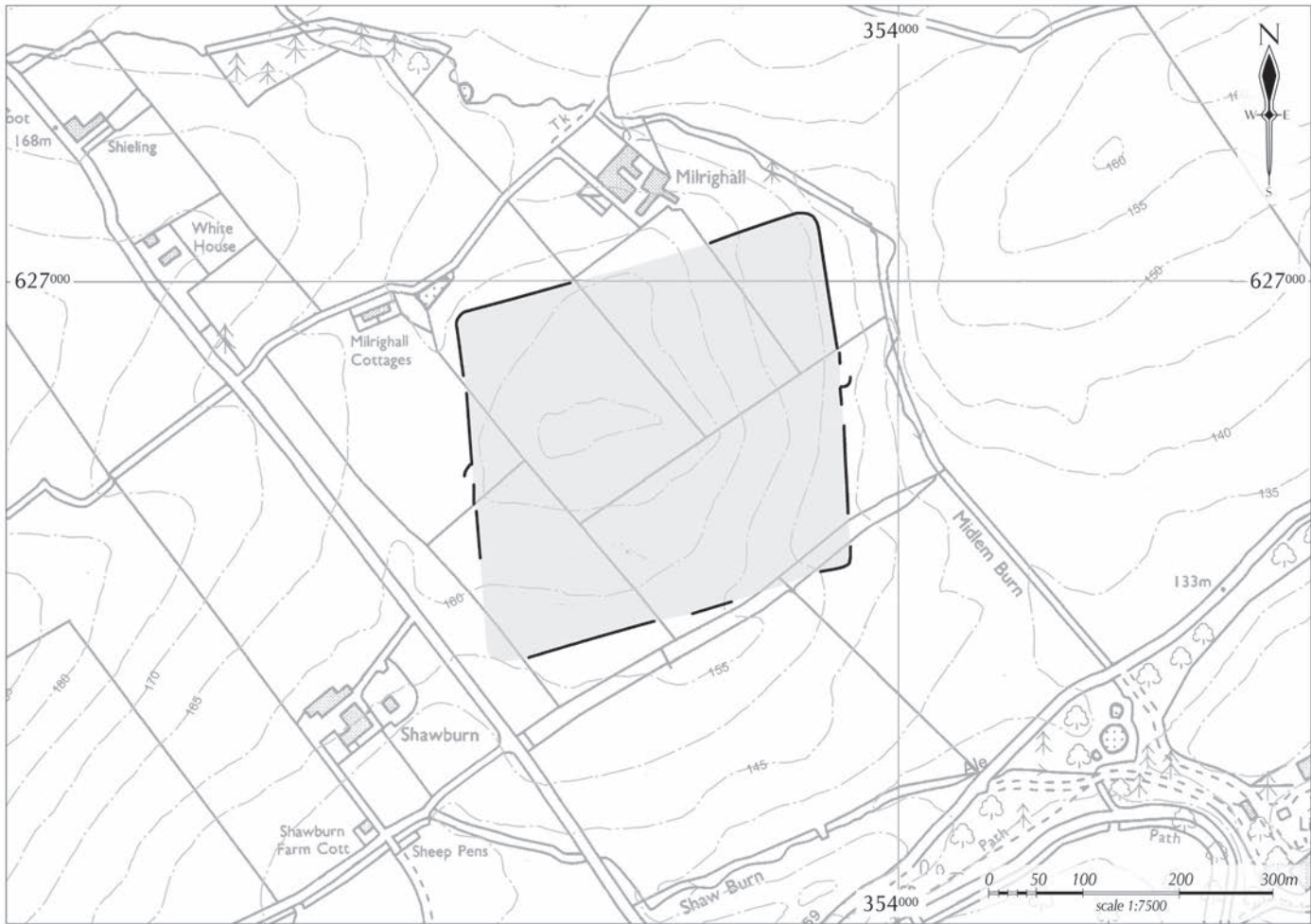


Illustration 179

Milrighall. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Milrighall (illus 41, 47 & 179)

NT 5375 2684 NT 52 NW 15

First observed from the air by Maxwell in 1977 (Maxwell & Wilson 1987: 32), the camp at Milrighall lies in arable fields astride a low ridge above the Ale Water. Measuring 397m from ENE to WSW by 370m, it enclosed 14.5ha (almost 36 acres). Entrances are visible just north of centre in the ENE and WSW sides, both accompanied by external *claviculae*. The provision of purely external *claviculae* (with no accompanying oblique traverse) is extremely rare, the only other example in Scotland being **Lochlands II**

(which may yet have an oblique traverse and therefore Stracathro-type gate). Cawthorn C in North Yorkshire also exhibits only external *claviculae* as a form of gate protection, and that camp is unusual in form for various reasons (Welfare & Swan 1995: 137–42). The camp of **Oakwood**, with surviving internal and external *claviculae*, lies 11km to the west, and it is possible that Milrighall also had internal and external *claviculae* ramparts which have since been levelled by the plough.



Illustration 180

Milton I and the nearby Roman fort, its annexes, Roman fortlet and other cropmarks. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Milton (illus 10, 47 & 180)

(Tassiesholm)

NT 0925 0100 NT 00 SE 22

The forts, fortlet and camp at Milton lie in the upper reaches of the River Annan, close to its confluence with the Evan Water and Moffat Water. The site, recorded by Roy as 'Tassiesholm' (1793: Pl. VIII), sits on a low ridge and comprises a Flavian fort of two phases with annexes,

and an Antonine fortlet with probably two phases enclosed by a trapezoidal palisaded enclosure (Clarke 1951). To the south of the fortlet lies a small camp (**Milton I**), and a possible camp may lie under the forts (**Milton II**, see probable camps below – Clarke 1951:

199). Some 700m north-west of the fort and on the valley floor of the Evan Water, lies a series of large camps at **Beattock**.

The camp was discovered in 1949 by St Joseph as a cropmark from the air, lying around 300m south of the fort. It measures 174m from ENE to WSW by 138m and

enclosed 2.2ha (5.4 acres). Entrance gaps protected by *tituli* are visible in the WSW, SSE and ENE sides. Two small trenches excavated in 1950 revealed that the ditch was some 2.1m in width, inside which was a 0.9m trench assumed to be for a palisade (Clarke 1951: 214).

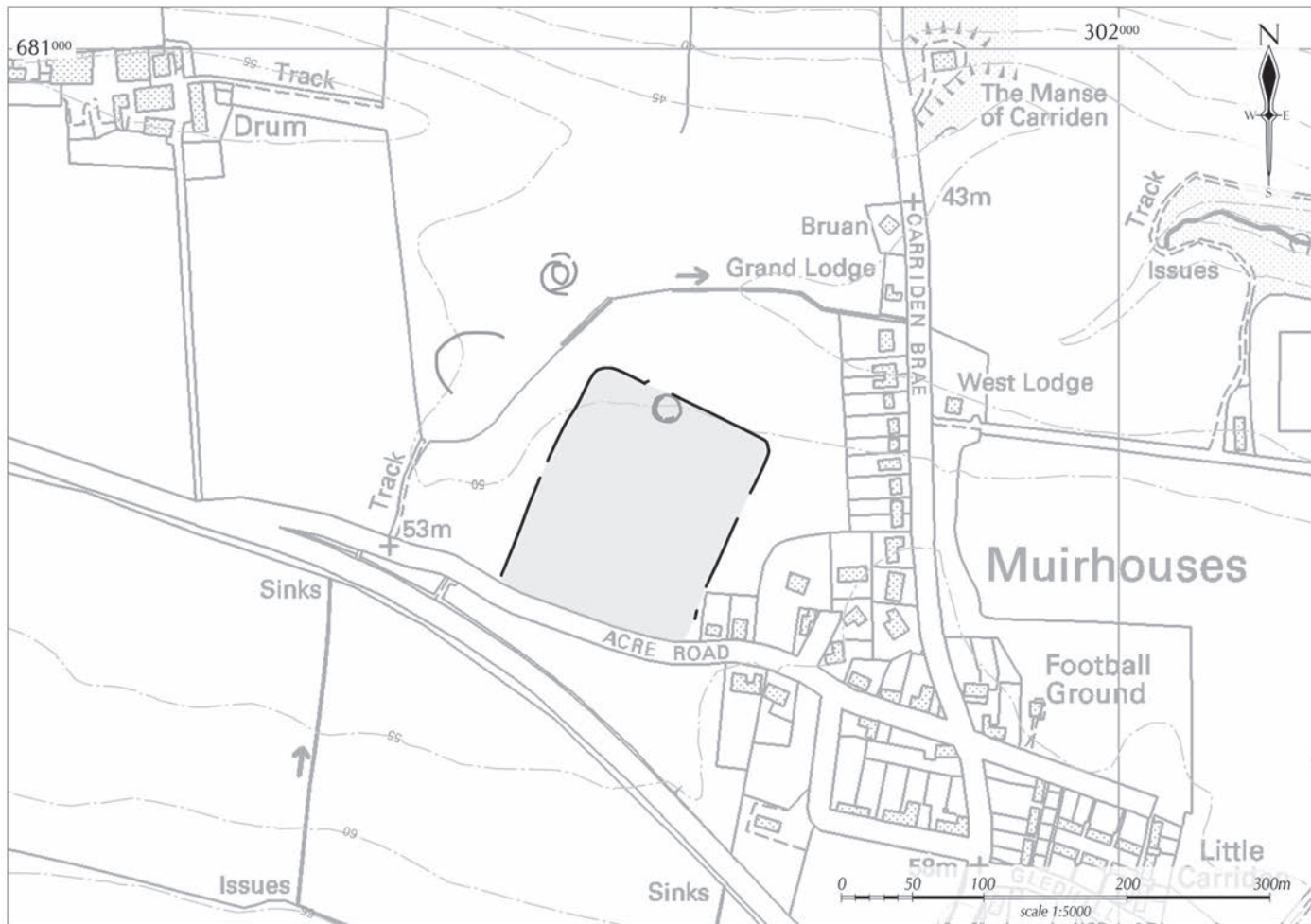


Illustration 181

Muirhouses and other cropmarks in the area. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Muirhouses (illus 47 & 181)

(Drum)

NT 0166 8067 NT 08 SW 12

The camp at Muirhouses was first recorded from the air by St Joseph in 1960 (St Joseph 1961: 122), on fairly level ground just west of the village of Muirhouses. The Antonine Wall runs somewhere to the north of this camp, but its exact course here is unknown. The Roman fort of Carriden lies about 900m to the east.

The NNE side and parts of the WNW and ESE sides have been recorded through cropmarks. Although the SSW side has not been recorded, it is likely that Acre Road represents the perimeter on this side, as the road bends slightly to take in both likely corner angles. The camp measures around 162m from NNE to SSW by 137m transversely, enclosing

an area of almost 2.2ha (5.4 acres). There is no definite trace of an entrance on the NNE side, but a possible entrance gap is located just north of the centre of the NNW side. St Joseph recorded a *titulus* in the centre of the NNE side

in his plan of the camp (RCAHMS St Joseph Collection: DC 39398), but this could not be confirmed on the air photographs.

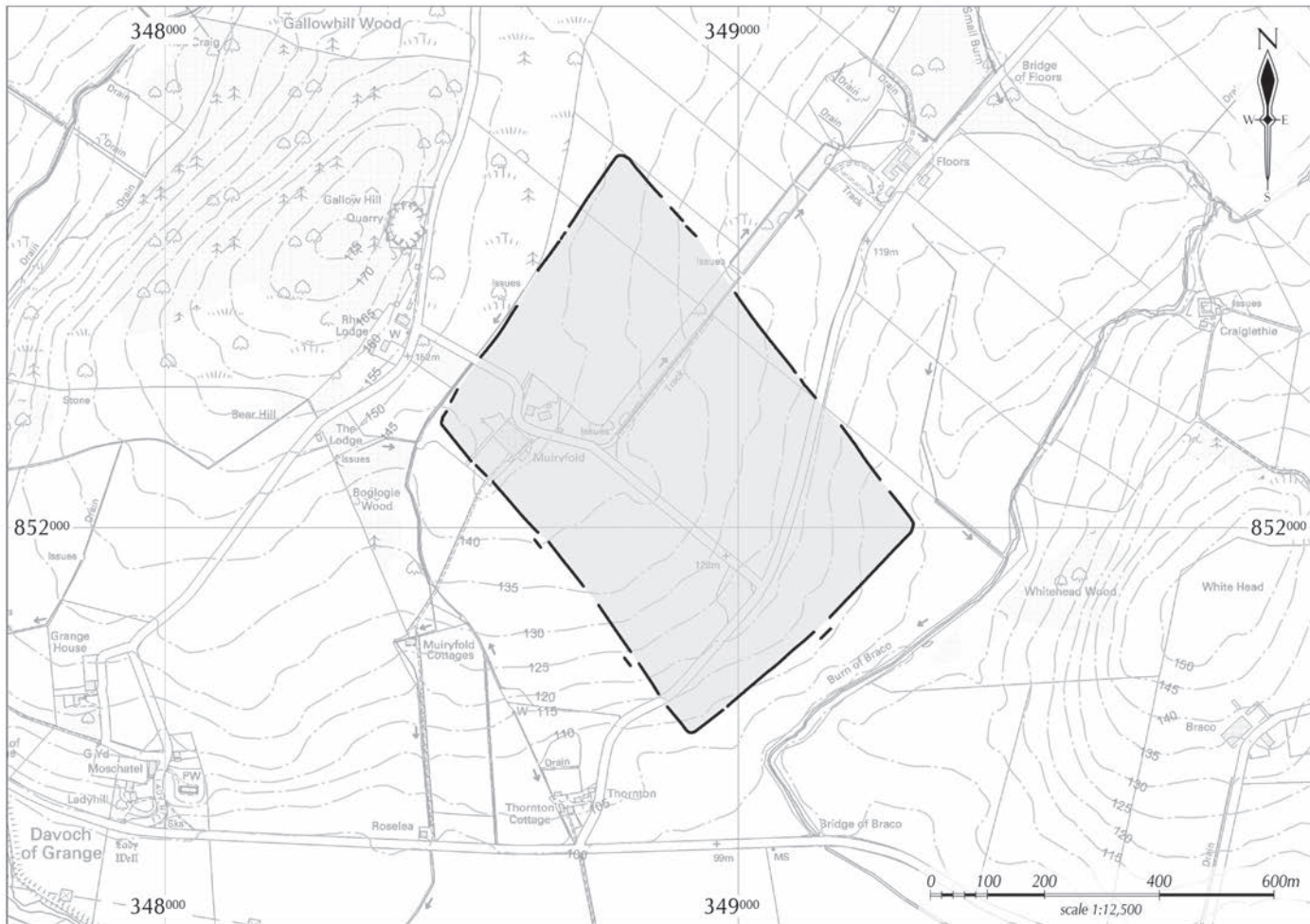


Illustration 182

Muirfold. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Muirfold (illus 47 & 182)

(Grange; Pass of Grange)

NJ 4890 5208 NJ 45 SE 2

The camp at Muirfold was first recorded from the air by St Joseph in 1959 (1961: 123), lying to the east of Keith, north of the River Isla close to the Pass of Grange, and about 2.5km east of **Auchinhove**. It is situated on land that slopes gently from Gallow Hill to the north-west to the Burn of Braco to the south-east, a tributary of the River Isla. It lies in a series of improved pasture and arable

fields surrounding the farm of Muirfold, and no trace is visible on the ground.

It is not quite rectangular in form, measuring about 768m from north-west to south-east by 522m transversely and encloses just over 41ha (102 acres). Entrance gaps protected by *tituli* are visible in the centre of the south-east side (where the camp bows out) and at two

points in the south-west side, suggesting that the camp had six gates. St Joseph excavated two small trenches in 1959, in the north-west and south-east sides, and he

recorded that the ditch measured up to 3.3m in width and about 1.3m in depth (RCAHMS St Joseph Collection: Notebook 2).

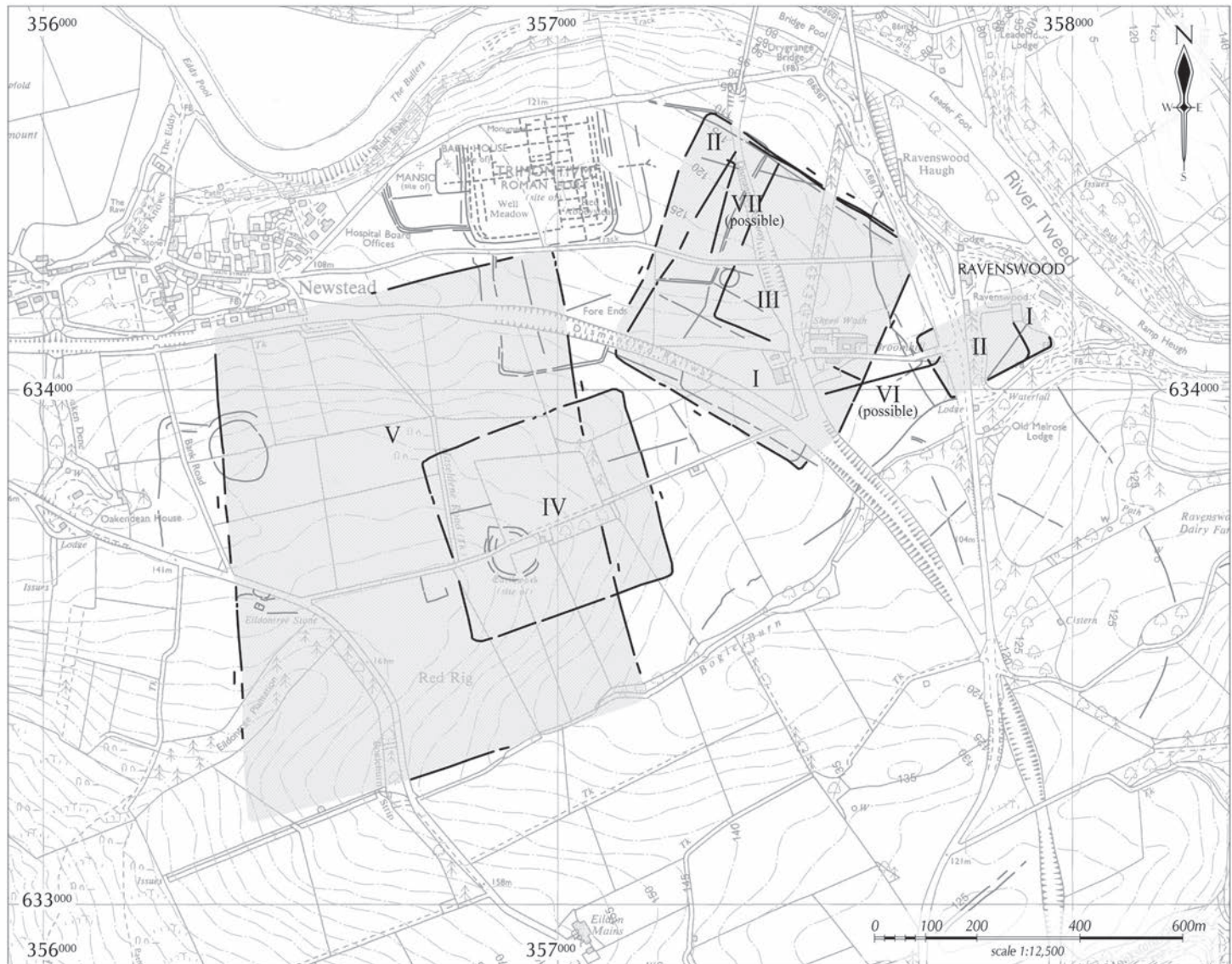


Illustration 183

Newstead I–VII and Ravenswood I–II and the Roman fort and annexes and other cropmarks in the area. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Newstead (illus 47, 68, 183, 184)

(Great Camps)

- | | |
|-----------------------------------|----------------------------------|
| <i>Newstead I: NT 5740 3415</i> | <i>Newstead IV: NT 5700 3376</i> |
| <i>NT 53 SE 20.5</i> | <i>NT 53 SE 20.6</i> |
| <i>Newstead II: NT 5740 3420</i> | <i>Newstead V: NT 5670 3375</i> |
| <i>NT 53 SE 20.5</i> | <i>NT 53 SE 20.7</i> |
| <i>Newstead III: NT 5748 3422</i> | |
| <i>NT 53 SE 20.5</i> | |

The Roman fort and camps at Newstead lie at the point where Dere Street crosses the River Tweed, just to the north of the three peaks of the Eildon Hills, from which the site gets its Roman name, *Trimontium*. A branch line from the North British Railway and the A68 both also cross the Tweed at this point.

Some seven camps are now known in the vicinity of the fort at Newstead through cropmarks, including two at **Ravenswood**, with further possible camps in the immediate area as well as at **Millmount** (see below, possible camps), some 700m west of the fort on low-lying ground by the Tweed. Across the Tweed, between Leaderfoot and

Drygrange, another camp has been recorded, lying just west of the now dismantled railway line.

Close to the fort itself, the first camps recorded lie on the ridge to its east (Curle 1911; St Joseph 1958: 87–8). Camp I, originally referred to as ‘The Great Camp’, was subjected to trenching by Curle in 1906–7 and 1909. He recorded a single camp, which he postulated belonged to the 1st century AD, and he did not imply that more than one phase had been found. Since Curle’s excavations, aerial photographs taken since the 1940s have revealed at least three and possibly as many as five camps in this area (Jones forthcoming 2011b – illus 184). At attempt to entangle



Illustration 184

Aerial view of the ‘great camps’ area at Newstead, showing parts of camps I, II & III. Taken from the north in 1984.

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the cropmarks from air photographs is made here. Camp I measures 485m by about 435m and enclosed about 21ha (almost 52 acres). Curle recorded four entrances with *tituli*, three of which can be seen on the air photographs (north-east, south-east and south-west sides). He recorded that the ditch was of varying dimensions, but on average measured some 2.3m in width and 1.5m in depth (Curle 1911: 16). Later excavations in the 1990s recorded a ditch, some 3m in width and 1.8m in depth, which had two phases of use (R F J Jones pers comm). In addition, two Roman cremation burials were found deposited in the south ditch of the camp, which had almost entirely filled up before the burials were cut through, demonstrating that they were therefore later (Curle 1911: 19–20). Three circular hearths were also located in the western part of the camp, but these may be associated with an annexe to the fort because they are within the area where the two overlap (Curle 1911: 18).

Camp II overlaps camp I and the eastern annexes to the fort, but the relationship between these structures is unknown. The north-eastern side of the camp is in almost the same location as that of camp I, but on a slightly different alignment. The camp measured at least 425m from north-west to south-east by at least 405m, enclosing a minimum of 17ha (42 acres). A probable *titulus* is visible in its north-east side.

Camp III is probably a reduced form of camp I, with a reduction in its north-west and south-west sides. This suggests that it measured around 323m from north-west to south-east by 313m transversely, but is slightly irregular in form. Around 9.6ha (almost 24 acres) is likely to have been enclosed. No entrances are known, but it may have utilised some of the gates of camp I. A further two possible camps are recorded in this area (camps VI and VII).

Recent excavations by Bradford University has suggested that none of the camps in the 'Great Camps' complex appears to be earlier than the fort, and at least one has two phases (R F J Jones pers comm).

Camp IV lies to the south of the fort, and measures 409m from ENE to WSW by 378m transversely, enclosing 15.5ha (38 acres). A *titulus* is visible on the ENE side, south of the centre, with possible entrance gaps in the other

sides. The eastern sector of the camp is bisected by a linear cropmark representing the east side of camp V, although the relationship between the two is unknown. This camp (V) has been gradually pieced together from different air photographs since the 1950s, with parts of all four sides now identified. It measures some 925m from north to south by around 710m, although appears to be wider at its southern extent than at its northern, and enclosed around 67ha (166 acres). Two entrances protected by *tituli* are visible on both the east and west sides, and it is assumed that the camp had further gates in the shorter sides adding up to six in total.

The northern part of this camp intersects the southern annexes of the fort. Excavations by Bradford University recorded a V-shaped east-west ditch, measuring 2m in depth and 6m in width (Clarke & Jones 1994), which was not believed to be related to the large camp (R F J Jones pers comm). While these dimensions would make this the largest Roman-camp ditch so far excavated in Scotland, it is not that much larger than the ditches at **Burnswark South** and **Raedykes** (1.8m by 5.5m and 2.1m by 4.5m respectively). A single abraded amphora sherd was found in the ditch (Clarke & Jones 1994), and although its location makes it a possible candidate for a further annexe to the fort, the supporting evidence from air photographs does not corroborate this suggestion. Furthermore, a bread oven was also located within this camp. Excavations in the area where the northern part of the east side is believed to run recorded a ditch; it measured 1.5m wide and was 1m deep with steep sides and a flat bottom, which had been cleaned out several times. The excavators interpreted this as having been a large drain (Jones *et al* 1992: 14). Further excavations in this area recorded a V-shaped ditch just over 1.5m in width and 1m in depth, but less than halfway across the trench it petered out rather than turn a corner, as would be expected if this were the camp ditch. The ditch was later extended to the north and again had a flat-bottomed steep profile. The excavators believed that these ditches related to land demarcation rather than to this large camp (Jones *et al* 1993: 18–19). However, an appraisal of the air photographic evidence suggests that some of the excavated ditches are on the line of this large camp.

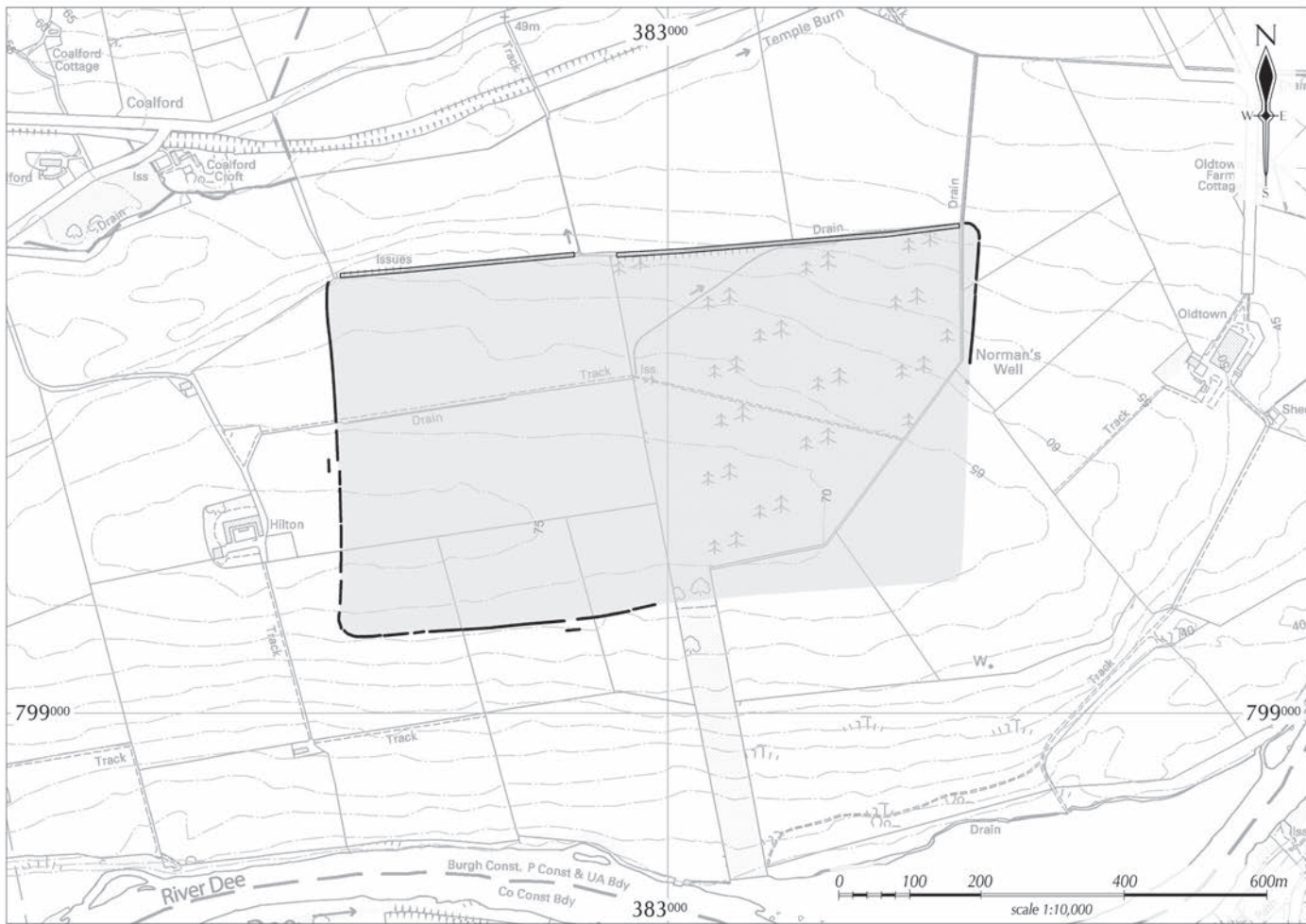


Illustration 185

Normandykes. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Normandykes (illus 30, 47 & 185)
(Peterculter)

NO 8297 9938 NO 89 NW 1

In 1801, Colonel Shand appears to have been the first to interpret Normandykes as Roman in date (Chalmers 1807: i, 125). The Statistical Account of 1795 refers to the 'Norman's Dyke' as a Danish camp, noting that some people also believed that it dated to the time of William the Conqueror (Sinclair 1795b: xvi, 380–1). This view was corrected for the New Statistical Account of 1845, noting that the work of Shand and others had confirmed that the camp was Roman in date, probably belonging to the campaigns of Lollius Urbicus (NSA 1845: xii, 108). Captain Henderson produced a plan of the camp which was reproduced in Chalmers' *Caledonia* (1807: i, opp. 125).

The camp lies just to the south of the village of Peterculter, on a low ridge on the north side of the River Dee. It measures about 895m from east to west by about 510m, enclosing an area of some 44.3ha (109 acres). The majority of the camp lies in arable fields, and much of the perimeter has been recorded as cropmarks from the air, but the eastern part of the north rampart and ditch survives as the north side of a plantation, accentuated by the superimposition of a plantation bank. This 'rampart' appears to be up to 6.3m in width and 1.4m in height, with a probable drain cut along the original line of the ditch. The western part of the north side lies under a stone wall. In addition, the rampart is detectable on the east side

at the point where it is crossed by a field boundary, where it is almost 10m wide and 0.3m high.

No entrance is visible in the upstanding sector of the camp, but the presence of *tituli* in the western part of the south side and in the centre of the west suggests that the camp had six gates. In addition, Captain Henderson also illustrated a *titulus* in the centre of the east side (Chalmers 1807: i, opp 125).

The site was subject to excavations by Richmond & McIntyre in 1935, who ‘verified with the spade the Roman origin’ of the camp, and intended to return (Taylor 1936: 237). Further details are not provided, but Simpson records a trial excavation conducted in October 1936 with Richmond & McIntyre near the north-west corner under the stone dyke of the field wall (Simpson

1943: 57–8; Crawford 1949: 112). Further excavations were undertaken in 1971 by St Joseph in a field on the north side of the camp, revealing a small ditch measuring 0.5m in width and 0.15m in depth (RCAHMS St Joseph Collection: Notebook 6). Small-scale excavations along a forest track through the camp in 2006 recovered at least three probable ovens and many more features interpreted as hearths (Scotia Archaeology 2006).

The camp bends in the south side, just to the east of the *titulus*. There may be a corresponding slight bend opposite in the north side if the ditch follows the field boundary for its west sector (as illustrated in Simpson 1943: 57–8), and the plantation bank in the wood for its east sector (see above, section 7a).

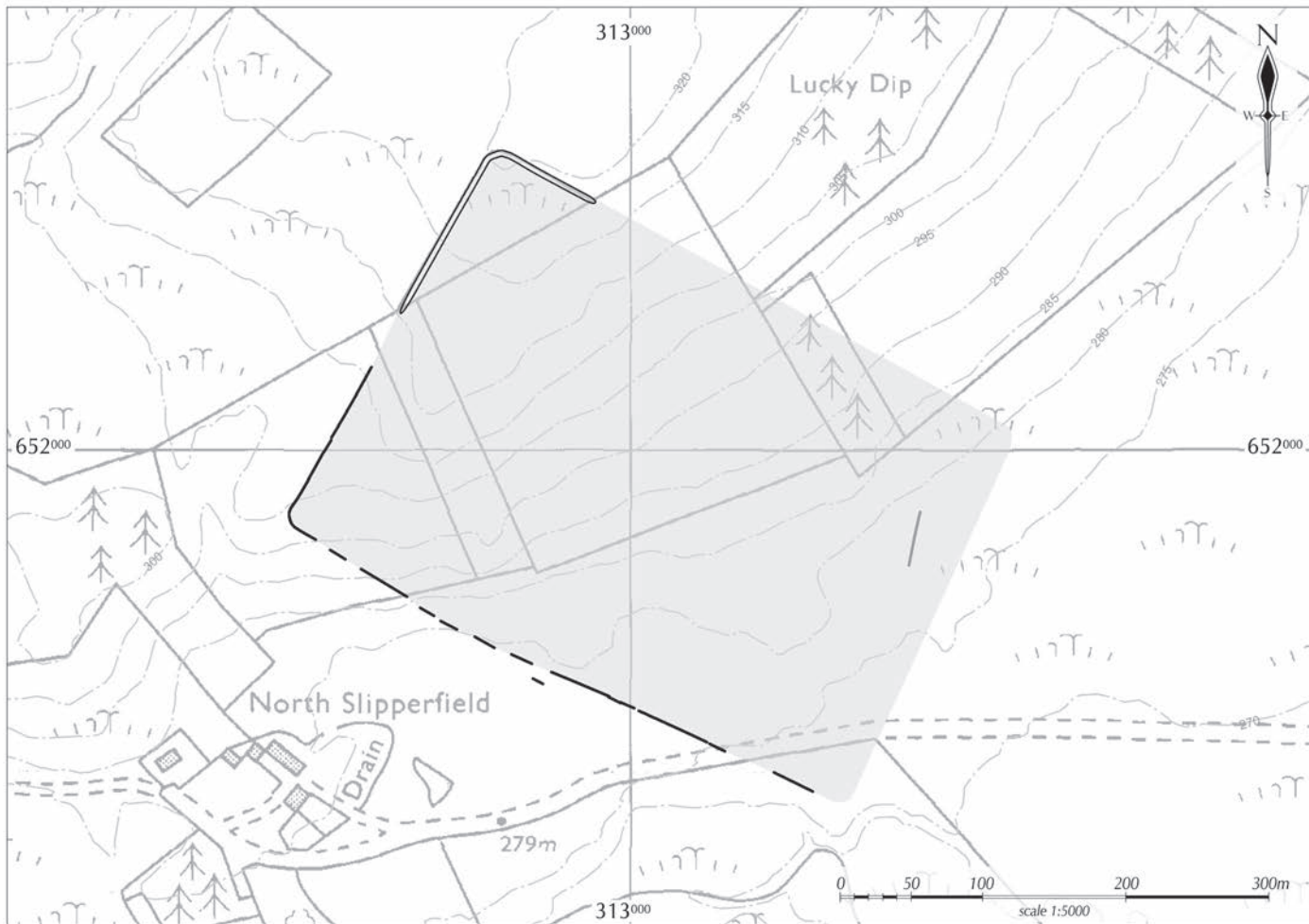


Illustration 186

North Slipperfield. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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North Slipperfield (illus 47, 60 & 186)

(Lucky Dip)

NT 1300 5200 NT 15 SW 45

First recorded in 1995 by RCAHMS from the air (Keppie 1996a: 404), this camp lies on sloping ground 500m north of the course of the Roman road which runs up the eastern side of the Pentland Hills. Part of the perimeter of the camp, the rounded north corner-angle and stretches of the adjacent sides are visible as an upstanding earthwork preserved through a later plantation bank (illus 60). Most of the remainder of the camp lies under a golf course and has been recorded only through parch marks. The north-

west side of the camp measures 301m, and over 400m of the south-west side has been observed. This bends out at an entrance gap with a *titulus*.

There is a faint linear cropmark to the south-east which might represent the south-east side of the camp, although it is at an oblique angle. If this is the south-east side of the camp, then it enclosed some 12ha (30 acres), but it does seem unlikely that this is part of the camp perimeter.

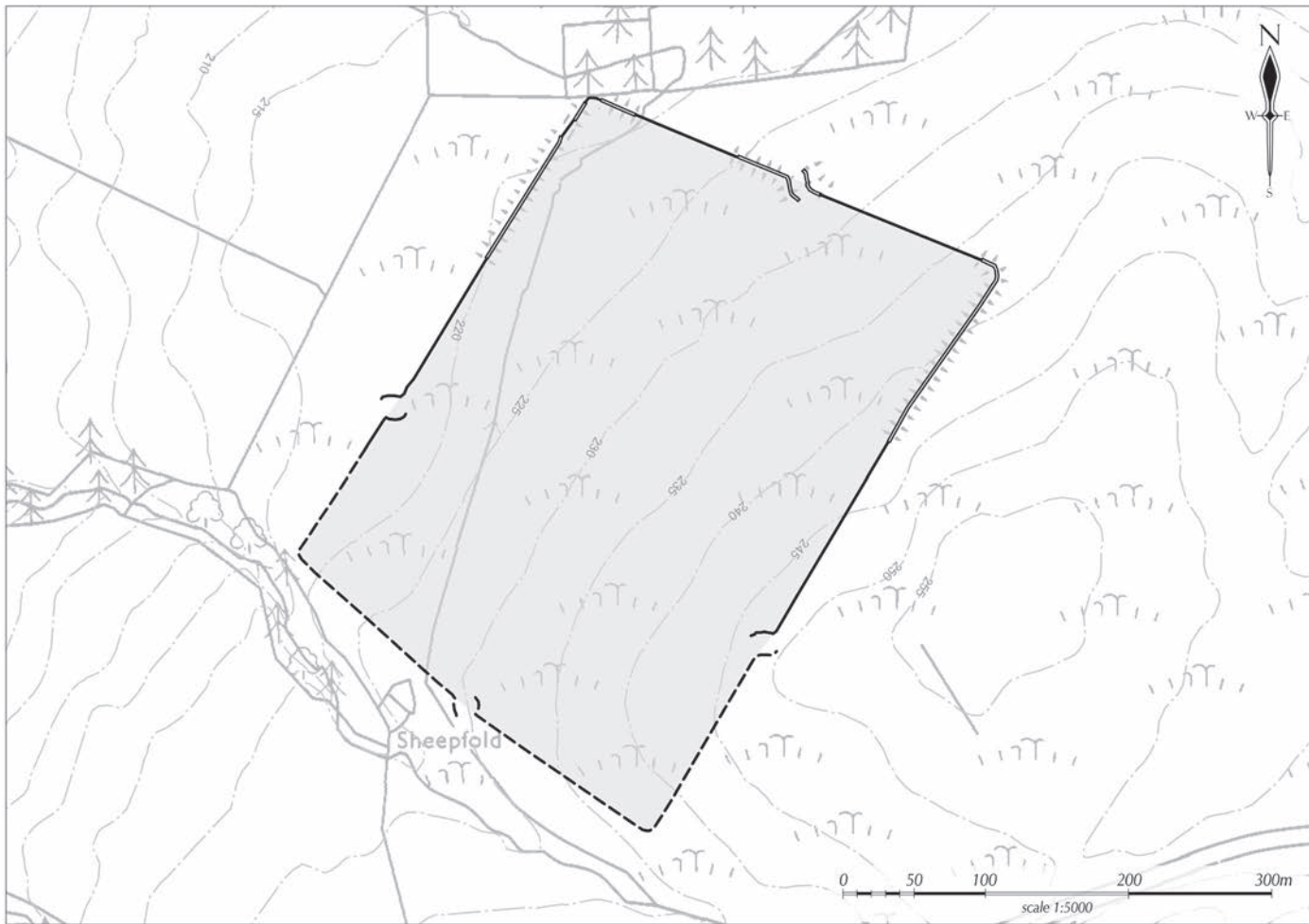


Illustration 187

Oakwood. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Oakwood (illus 15, 47 & 187)

NT 4248 2544 NT 42 NW 12

The camp and nearby fort at Oakwood were first discovered in 1949 during routine assessment of recent Royal Air Force photographic coverage of Selkirkshire by Feachem at RCAHMS (Steer & Feachem 1954: 81; RCAHMS 1957). The camp lies on uneven ground above the Ettrick Water, with the Roman fort located 150m to the south. The north-eastern part of the camp survives as a low-lying earthwork, up to 0.4m high; the remainder was traced through a series of small-scale excavation trenches in 1951–2 (Steer & Feachem 1954).

The camp measures 427m from north-east to south-west by 308m transversely and enclosed 13.2ha (almost 33

acres). Internal and external *claviculae*, known as cusped gates (see section 7b), are visible in the north-east and north-west sides, and an internal *clavicula* in the south-east, and it is assumed that the camp possessed four cusped gates (Steer & Feachem 1954: fig 2). Excavations revealed that the rampart was some 4.6m wide, with the ditch 1.8m wide and 0.6m deep (Steer & Feachem 1954: 85). The excavators recorded that part of the rampart was kept in place by a clay cheek, presumably to stop it from slumping into the ditch.

Illustration 187 includes information gathered from Steer & Feachem's excavations (1954: fig 2).



Illustration 188

Ochertyre. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Ochertyre (illus 188)

NS 7465 9820 NS 79 NW 51

The camp at Ochertyre lies on level ground on the south side of the River Teith, across from the camp at **Craigarnhall**. Only part of the camp has been recorded by Maxwell from the air as a cropmark in 1982. Over 160m of the WSW side is known together with a rounded southern corner angle and hint of the SSE side. But an entrance gap and *titulus* is visible in the WSW side,

enabling its identification as a Roman camp. This gate lies 119m from the south corner. If centrally positioned, this south-west side would be around 238m in length, and if the camp occupied all the available space to the River Teith, then its overall dimensions could be in the region of 240m by 350m, thereby enclosing up to 8.4ha (20.7 acres).

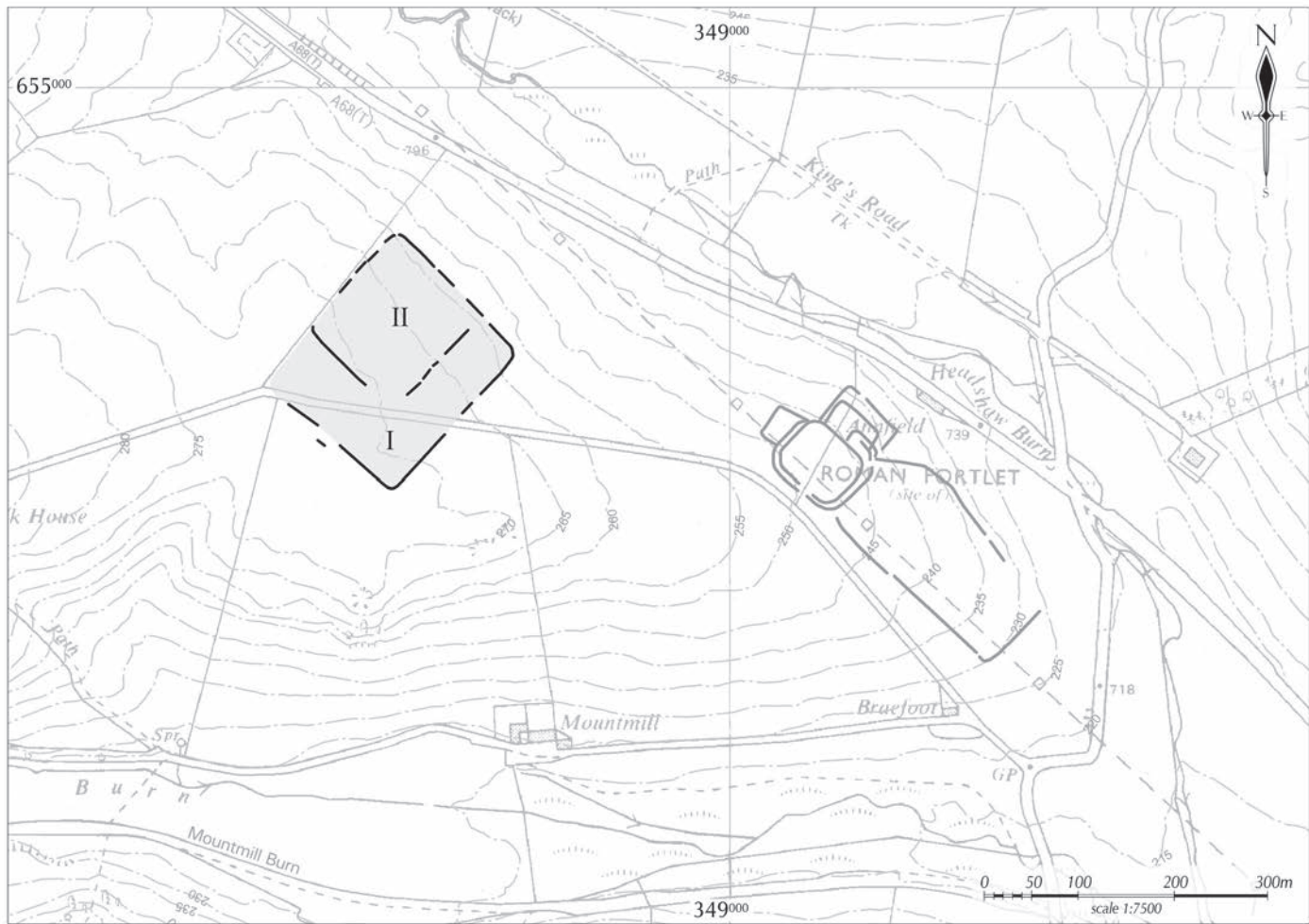


Illustration 189

Oxton I-II and the nearby Roman fortlet and its annexes. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Oxton (illus 47, 55 & 189)
(Channelkirk)

*Oxton I: NT 4865 5473
NT 45 SE 27*

*Oxton II: NT 4865 5476
NT 45 SE 27*

The two cropmark camps at Oxton lie on the eastern part of a ridge next to the fortlet at Oxton, just to the east of the large camp at **Channelkirk**. They share part of their north-west and north-east sides. The first camp was initially recorded in 1969 by St Joseph from the air (1973: 216); the second camp was observed during further aerial reconnaissance in 1979 (Maxwell & Wilson 1987: 38). Camp I, the larger of the two, measures 206m from north-

east to south-west by 181m, enclosing 3.7ha (9 acres). An entrance gap protected by a *titulus* is visible in the south-west side.

Camp II represents a reduction in size of camp I, although the chronological relationship between the two is unknown. It measures 140m from north-east to south-west by 125m and enclosed 1.7ha (just over 4 acres). No entrances are known.

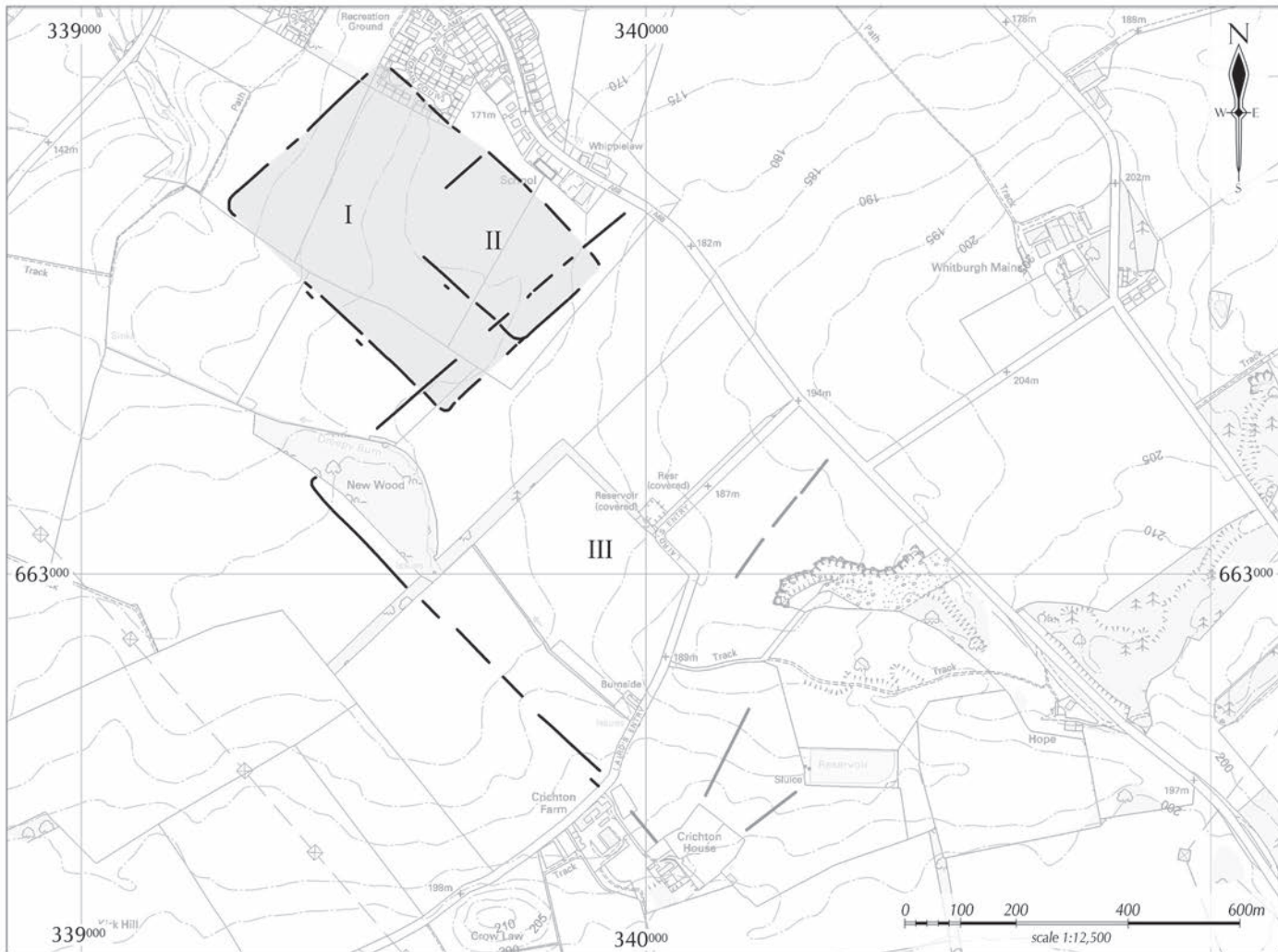


Illustration 190

Pathhead I-III and other cropmarks in the area. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Pathhead (illus 47 & 190)

Pathhead I: NT 3960 6359 Pathhead III: NT 3990 6320
NT 36 SE 3 NT 36 SE 17

Pathhead II: NT 3975 6358
NT 36 SE 3

The three camps at Pathhead lie on gently sloping ground just to the west of the A68, on the line of Dere Street. The two camps at **Woodhead** lie 1km to the north-west. The three intersect one another, with camp II tucked into the corner of camp I, utilising parts of its north-east and south-east sides. These two were first recorded as cropmarks in 1956 by St Joseph (1958: 88).

Camp I measures 530m from north-west to south-east by 390m transversely, enclosing 20.5ha (just over 50 acres). Two entrance gaps are visible on the south-

west side protected by *tituli*; a probable entrance gap can be observed in the north-west side. St Joseph excavated on the camp in 1956, and although he recorded that the ditch measured up to 1.3m wide and 0.6m deep, it is not clear where his trenches were located (RCAHMS St Joseph Collection: Notebook 1). He also recorded a *titulus* in the north-west side (RCAHMS St Joseph Collection: DC 39405), but this could not be confirmed during appraisal of the available air photographs.

Some 160m of the ditch on the north-east side was excavated in 1997, recording that it was V-shaped with an irregular 'ankle-breaker' slot, up to 2.75m wide (3.8m wide in one trench) and up to 1.1m deep (Leslie & Will 1998). In places it appears to have been deliberately filled in, whereas elsewhere the ditch appears to have silted up naturally. Some 5–6m inside the camp, four figure-of-eight features were recorded and identified as Roman field ovens or hearths. The camp overlaps two probable settlement enclosures (not depicted on illus 190), but the relationship between these and the camp was not established by excavation (Leslie & Will 1998).

Camp II, occupying the east corner of camp I and sharing part of the adjacent north-east and south-east sides, measures almost 300m from north-west to south-east by almost 130m, enclosing 3.9ha (9.7 acres). A *titulus* is visible on the south-west side of the camp, but there is no apparent break in the ditch at this point, suggesting that the camp may have had more than one phase of use, or that there may have been a ditched feature across the entrance which would blur the cropmarks (similar to that found through excavation at **Eskbank**). Another possibility is that a later field drain may have been inserted into the ditch, as was the case with parts of the excavated ditch of Pathhead I on its north-east side (Leslie & Will 1998).

Camp III lies to the south of the other two, with its north-west side intersecting their south-eastern portion. It was discovered a few years later (St Joseph 1969: 107), and parts of only two sides have been recorded as cropmarks: 720m of the north-west side and 735m of the south-west with the rounded western corner between them. Nothing has been recorded east of the A68, but it is noteworthy that the road here bends where it meets the north-west side of this camp. This may be for an entrance or corner, although this is speculation. The length of the two known sides suggests an extremely large camp of at least 55ha (135 acres), and it has been grouped with the so-called '165-acre' series on Dere Street. No clear entrances have been recorded; a possible *titulus* is visible on the south-west side, but this may relate to other cropmarks close to the side of the field where the Laird's Entry road runs south-west from Crichton Farm. Other linear cropmarks are visible to the south-east, but none can be confidently ascribed to this camp. The cropmark to the south of the Laird's Entry is on a slightly different alignment, but this could be due to a change at the possible gate. If the camp is 165 acres (66ha) in size (as proposed by St Joseph, 1969: 107; see above, Chapter 9), then the south-west side could measure some 900m and the *titulus* would be located less than 200m from the south corner. Excavations on the north-west side in 1969 revealed a ditch which was V-shaped, up to 3.6m wide and 1.5m deep (St Joseph 1973: 216).

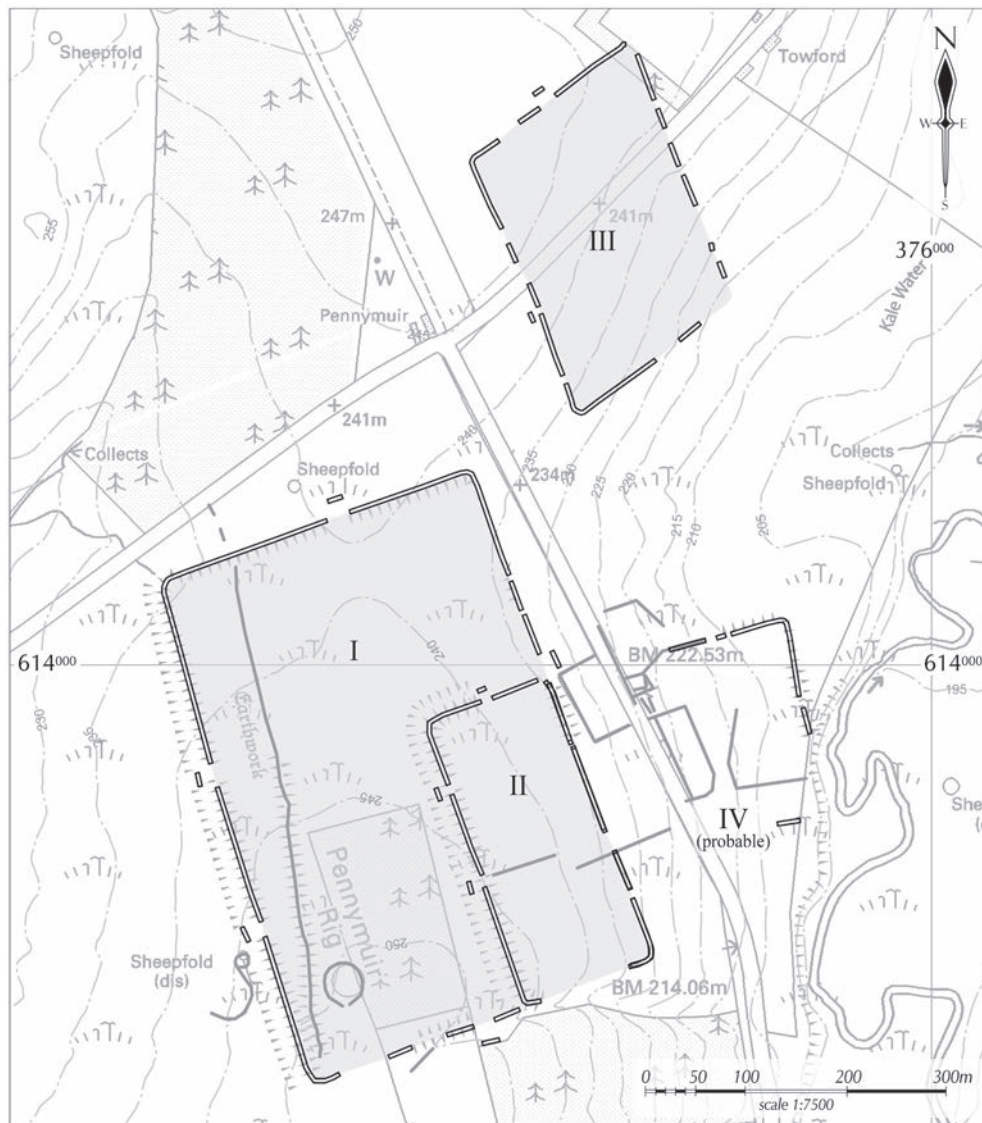


Illustration 191

Pennymuir I-IV and other earthworks in the area. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Pennymuir (illus 37, 47 & 191)

(Towford)

*Pennymuir I: NT 7545 1390
NT 71 SE 5.1*

*Pennymuir III: NT 7568 1442
NT 71 SE 5.3*

*Pennymuir II: NT 7564 1380
NT 71 SE 5.2*

*Pennymuir IV (probable): NT 7580 1395
NT 71 SE 5.4*

The three, possibly four, camps at Pennymuir lie on rough moorland in the Cheviot Hill beside Dere Street, close to its descent from Woden Law and on the north bank of the Kale Water. All four are recorded as earthworks in rough moorland, with camps I and II amongst the best preserved in Scotland. These two were first recorded in 1774 by William Roy (1793: Pl.

XXII), with camp II occupying the south-east corner of camp I. The larger camp measures 520m from NNW to SSE by 343m transversely and enclosed almost 18ha (44 acres). Entrance gaps protected by *tituli* are visible on all four sides, with two on the WSW side, and the camp probably had six gates in total. The upstanding rampart of the camp measures up to 4.6m wide and 1.2m high,

with the ditch some 4.6m wide and up to 1.2m deep in places.

Camp II, which utilises part of the ESE and SSE sides of camp I, measures 299m from NNW to SSE by 129m, enclosing 3.9ha (9.7 acres). Its defences are of similar dimensions to camp I. Entrance gaps protected by *tituli* are visible on the WSW (two) and NNW sides, and the camp also probably had six in total. Detailed field survey by RCAHMS noted that the more northerly of the two gates in the south-west side had been narrowed, which they argued might represent a reoccupation of the camp in Roman times (1956: 376).

Camp III is situated just to the north-east of camps I and II, on the east side of Dere Street and, although recorded as an earthwork, has been partially obliterated by drainage and a plantation. It was recorded during scrutiny of RAF air photographs by RCAHMS in 1947 (Taylor 1948: 83; RCAHMS 1956: 375–7). It is a parallelogram in form, measuring 279 from north-west to south-east by 186m, and enclosed 5.1ha (almost 13 acres). The rampart survives in places as a low mound, some 2m wide and 0.2m

high. Drainage ditches observed in 1949 showed that the ditch was about 1m wide and up to 0.5m deep, while the rampart was 2.1m wide and 0.3m high (RCAHMS 1956: 375–7). Entrance gaps with *tituli* are visible in the north-west and south-west sides. A section was cut through the *titulus* on the south-west side in 1949 (by Sir W. Aitchison – RCAHMS 1956: 377) but no further information is available.

A probable fourth camp at Pennymuir was located during the study of the RAF air photographs (RCAHMS 1956: 375–7) lying on the east side of Dere Street across from camps I and II. Only part of the camp has been recorded, measuring 192m from NNW to SSE by at least 120m, suggesting that at least 2.3ha (5.6 acres) was enclosed. The rampart is visible as a low spread mound, recorded in 1949 as measuring 4m wide and 0.3m high, with a ditch 3m wide and 0.3m deep outside (RCAHMS 1956, 377). Cultivation remains and drainage ditches cut through the camp, and RCAHMS used this evidence and the dimensions of its perimeter defences to argue for a Roman date (1956: 377).

Polmonthill (illus 47 & 166)

(Polmont)

NS 9473 7898 NS 97 NW 11

This camp is situated some 400m south of the Antonine Wall between the forts of Inveravon and Mumrills, about 800m west of the former (across the River Avon) and some 3km east of the latter.

It was first recorded through cropmarks by St Joseph in 1945–6, alongside its neighbour **Little Kerse**, which lies about 300m to the west, separated by the Gilston Burn, now the Millhall Reservoir (St Joseph 1951a: 62). When originally discovered, the site lay in arable fields just to the north of the Falkirk to Linlithgow road, south-west of the farm of Polmonthill, but it now lies in land occupied by the Grangemouth Golf Course.

Additional photographs taken from the air by St Joseph in 1964 led him to state that parts of all four sides had been recorded (St Joseph 1965: 80). However, as the north-east

side has not been recorded, but an annexe is known, it is likely that he is referring to the annexe lying on the south-east side of the camp.

The whole of the south-west side has been recorded, together with stretches of the south-east and north-west, suggesting that the camp measured around 220m from north-west to south-east by at least 150m, enclosing a minimum area of some 3.2ha (7.8 acres). There is a possible entrance gap on the south-west side. The annexe measures about 79m from north-west to south-east by 122m transversely, enclosing an additional 0.9ha. As with nearby **Little Kerse**, the provision of an annexe is unusual, as these have only been recorded at these two camps and at **Balmuirdy** along the Antonine Wall.

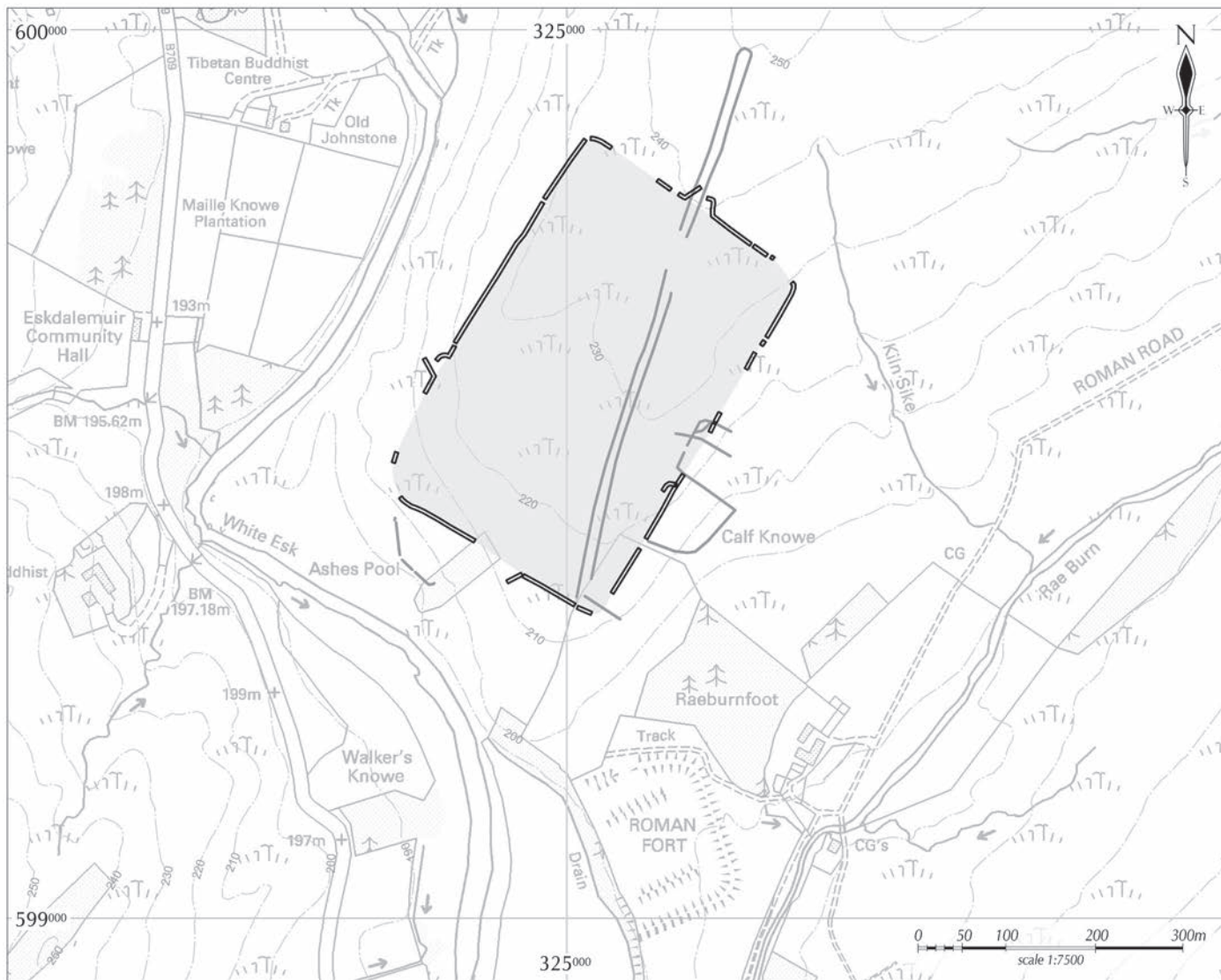


Illustration 192

Raeburnfoot and other earthworks in the area including the bank barrow and Roman fort. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Raeburnfoot (illus 43, 47 & 192)

(Eskdalemuir)

NY 2514 9978

NY 29 NE 101

First discovered during analysis of air photographs by McKeague (RCAHMS) in 2004, this camp was confirmed through ground survey in 2005 (Jones & McKeague 2009). It survives as an earthwork but is in an extremely degraded condition, with the counterscarp bank the only element to survive in places. The maximum height of the counterscarp or rampart above the ditch is 0.3m. The Roman fort of Raeburnfoot lies on lower ground, some 250m to the south (see above, section 7d).

The camp measures 452m from north-east to south-west by 295m transversely and enclosed 13.2ha (32.7

acres). Stracathro-type gates are visible on the north-west and north-east sides, with an oblique traverse on the south-west and a possible internal *clavicula* on the south-east. A long bank barrow runs through the centre of this camp, and the north-eastern gateway has been deliberately sited on the higher ground represented by the barrow.

An additional bank extends to the south-west of this camp, but it is a much larger earthwork and may be a later feature relating to the control of the River White Esk below the camp.

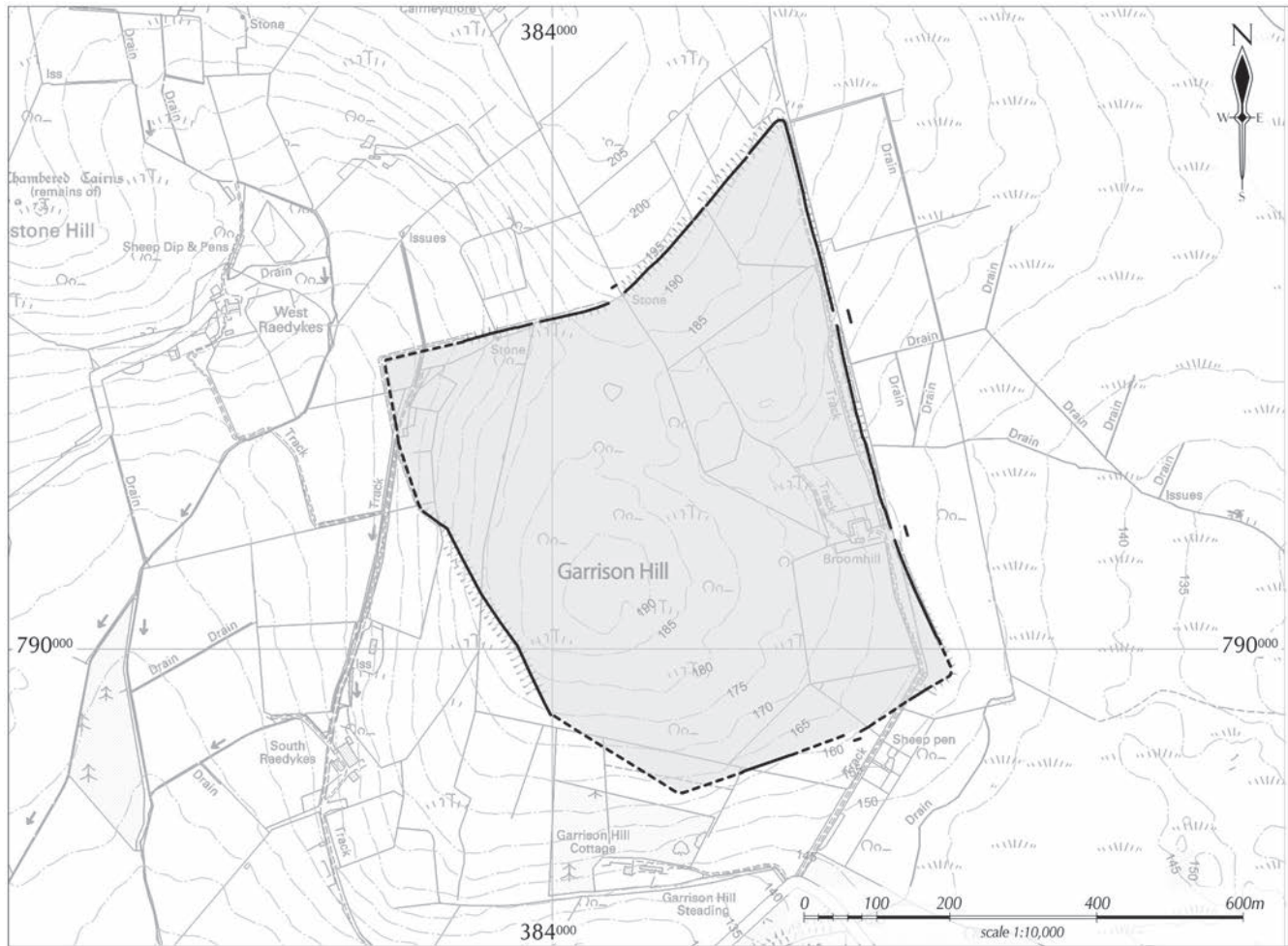


Illustration 193

Raedykes. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Raedykes (illus 16, 47 & 193)

(Re-dykes; Raedikes; Ridykes; Readykes; Rhé Dykes; Ury-hill; Garrison Hill; King's Dykes; Newbigging; Garnca-hill; Garney Hill)

NO 8415 9020 NO 89 SW 2

The camp of Raedykes was first recorded by Maitland (1757: 202) and planned by George Brown and Barclay of Urie in 1778 (Barclay 1792; Roy 1793: Pl. L). It was the most northerly known for some time, and became a favoured site for the battle of Mons Graupius, with Kempstone Hill, 4km to the east, one potential location of the battle (Barclay 1792). Melville, however, did not favour the site for the battle (Gough's edition of Camden's *Britannia* 1790: iii, 416; Macdonald 1916: 319). It is worth noting that John Stuart thought that the camp was the Caledonian camp before the battle, being 'an awkward imitation' of the Roman one (1831:

300). Douglas notes that the tradition of the country was that a Scottish army lay in the camp, to oppose a Danish one encamped on the Links of Arduthie (1792: 261). Macdonald 1916 provides a useful summary of the historical sources for the site.

The camp is irregular in shape, and encloses Garrison Hill, with height-differences of over 40m between the highest and lowest points enclosed. It commands good views of the surrounding countryside, particularly to the sea at Stonehaven some 5km to the south-east, and is sited on the north side of the Cowton Burn, a tributary of the Cowie Water.

The camp measures around 663m from NNW to SSE by a maximum of 590m transversely and encloses 38.9ha (96 acres), if the projected line of the north-west corner is correct (having been taken from earlier sources).

The camp remains in a remarkable state of preservation, with the rampart and ditch clearly visible for much of the perimeter, owing to the site lying mostly under rough and improved pasture. At various points, the rampart measures up to 5.1m in width and 0.8m in height, with a 0.9m berm before the ditch, which measures up to 4.3m in width and 1.3m in depth. Tumbled stone in the ditch on the ENE side has led to suggestions that it may have been rock-cut in places, but this has not been confirmed. Entrance gaps with *tituli* (surviving as low swellings) are visible in the centre of the NNW side where the rampart angle changes – two on the ENE side and another in the SSE side; a further entrance gap is visible at a change of alignment in the southern part of the west side.

Excavations by Macdonald in 1914 identified that the ditch was V-shaped, about 4.5m in width and 2.1m in

depth, faced with puddled clay up to 5cm in thickness, although was smaller elsewhere on the perimeter (Macdonald 1916: 332–4). He also suggested that where the ditch was smaller, the rampart was also smaller. Two of the *tituli* were recorded, the ditch of one measuring 18.6m in length by 3.4m in width and 1.5m in depth, the ditch of the other only 11.6m in length by 3.8m in width and 1.4m in depth (1916: 337). Historical finds from Raedykes include two Roman *hastae* (Douglas 1782: 261), a small hoop or ring of iron (Stuart 1831: 301) and a complete wheel (NSA 1845: xi Kincardine, 249–50).

A linear earthwork located some 230m south of the camp has been presumed to also be Roman in date and is associated with the camp as an additional defensive earthwork (Crawford 1949: 108–10; RCAHMS: NO 88 NW 23). However, this earthwork is of a rather different character and much larger in scale. It is also questionable whether the camp would have needed an additional outwork at this point. A medieval or post-medieval date for this feature seems more likely.

Ravenswood (illus 47 & 183)

(Broomhill; Newstead)

Ravenswood I: NT 5780 3410
NT 53 SE 142

Ravenswood II: NT 5780 3410
NT 53 SE 142

East of the fort and camps at **Newstead** lies a further two-phase camp, recorded through aerial and geophysical survey. St Joseph first recorded part of this camp in 1991 and put small trenches through its WSW and SSE sides (Keppie 1994: 261). However, given that he stated its size to be about 1.62ha it seems likely that he had identified elements of the smaller camp (II) which represents a reduction of the larger one (I), identified by Bradford University during geophysical survey as part of a project centred on the **Newstead** area (Keppie 1996a: 403–4). Camp I, the larger, measures 225m from ENE to WSW by 130m and enclosed 3.1ha (7.7 acres). This was reduced

on its ENE side to 180m to enclose 2.5ha (6 acres). There is a possible entrance gap on the shared WSW side of the two camps, and a further linear cropmark from the Newstead complex (**Newstead VI**, see possible camps) runs through this entrance. Excavations on the ditch by St Joseph recorded that it was 0.83m deep on the west side and 1.44m deep on the south; a fragment of pottery was recorded but no more information was provided about this (Keppie 1994: 261). Another linear cropmark running obliquely through the eastern part of the camps may also relate to part of the ‘Great Camps’ complex to the west.

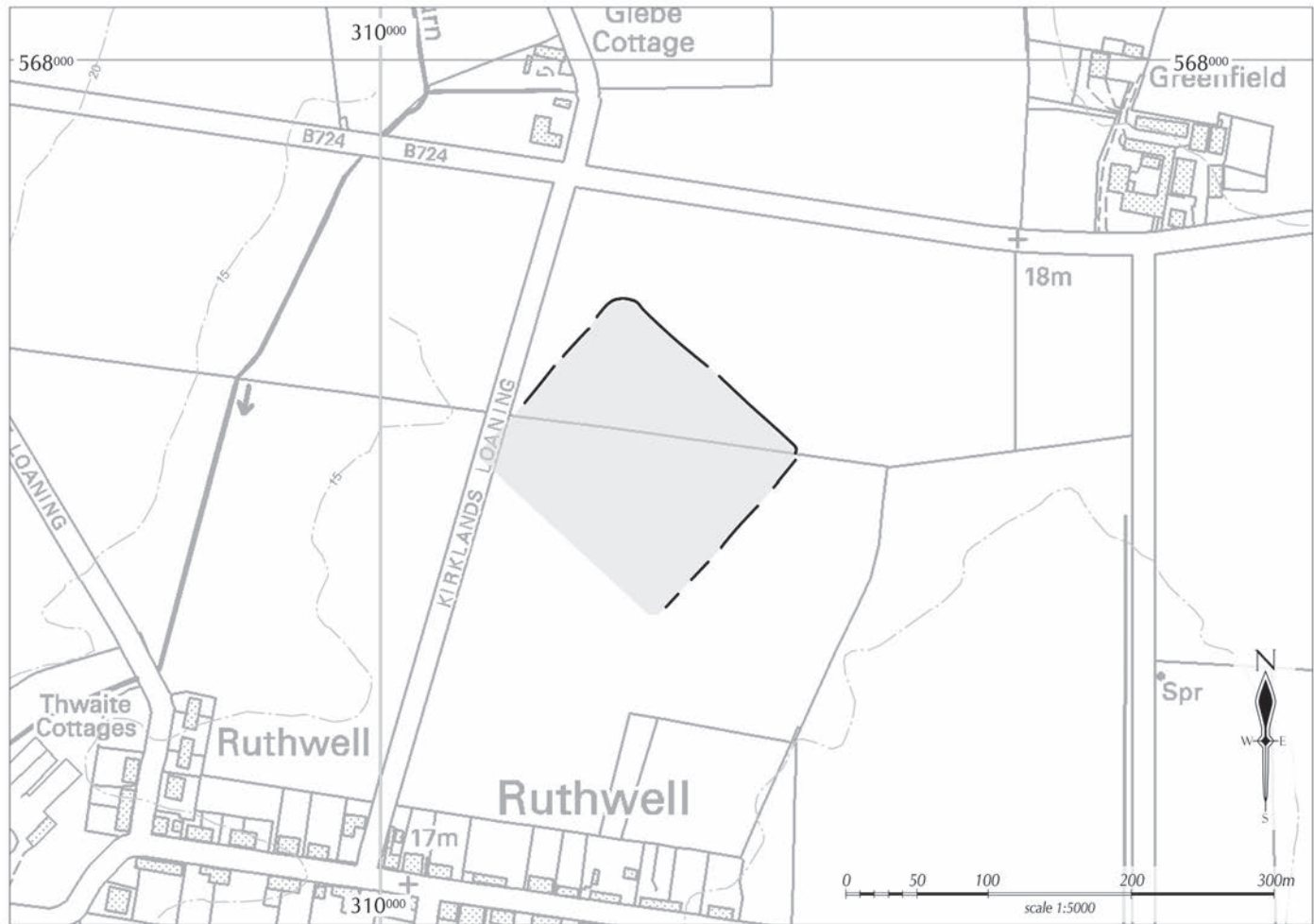


Illustration 194

Ruthwell. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Ruthwell (illus 47 & 194)

(Summerfield; Horseclose)

NY 1020 6773 NY 16 NW 16

The camp at **Ruthwell** lies on level ground close to the confluence of the Lochar Water with the Solway Firth. It was discovered as a cropmark in 1978 by Cambridge University (Maxwell & Wilson 1987: 40) and measures

170m from north-west to south-east by at least 145m; the south-west side has not been located. Therefore at least 2.5ha (6.3 acres) has been enclosed, possibly more. An entrance gap is visible in the north-east side.

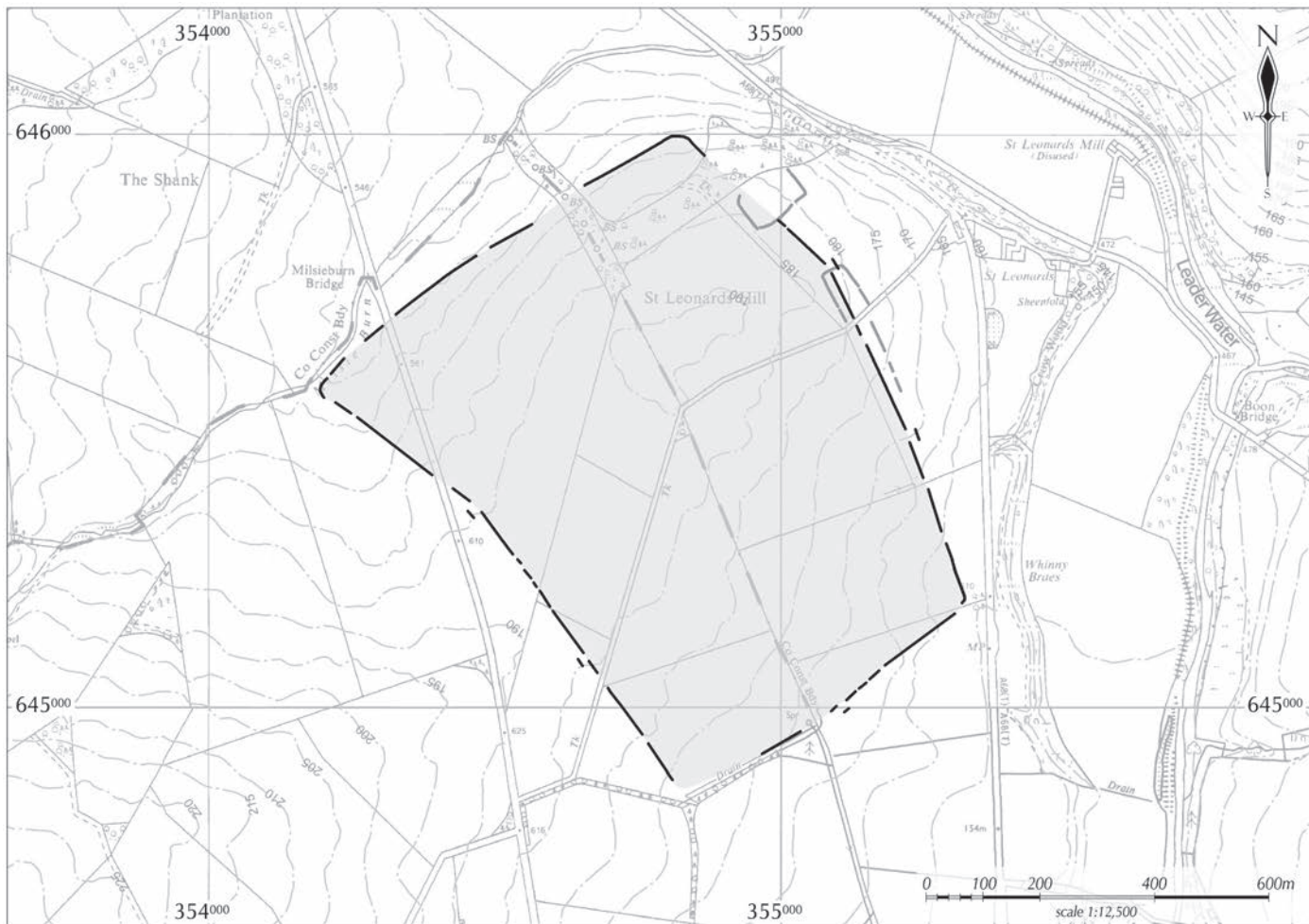


Illustration 195

St Leonards and other cropmarks in the area. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

St Leonards (illus 47, 195 & 196)

(St Leonard's Hill)

NT 5470 4552 NT 54 NW 14

This camp encloses the gently undulating ground of St Leonards Hill, above the Leader Water, on the line of Dere Street. It was first recorded as a cropmark from the air by St Joseph in 1948 (1951a: 57) and is slightly irregular in form, measuring around 1000m from north-west to south-east by about 738m. It enclosed 70ha (173 acres), making it the largest camp so far recorded in the Roman Empire. The need to enclose such a large area of ground with its concomitant topographic constraints led to the shape of the camp, which was wider at the north-west end (which measured 747m) than the south-east (624m). There is a change of alignment towards the north-west end at the northern gates on both the north-east (illus 196)

and south-west sides; it also bows out slightly at the south-east gate. *Tituli* are recorded at five of these gates (only an entrance gap is so far known in the north-west side).

The camp intersects a possible prehistoric settlement on its north-east side and a further enclosure which has been claimed as a Neolithic cursus, although this is now regarded as unlikely (Mudie 2002: 101 – illus 196). Geophysical survey on this side of the camp recorded some 'small, high magnetic anomalies which may be the remains of Roman field ovens or latrines' (Neighbour 2000); a subsequent evaluation recorded the line of the ditch on this side but it was not excavated (Mudie 2002: 101).



Illustration 196

Aerial view of part of the north-east side and one of the entrances of the camp at St Leonards, showing a settlement and enclosure which intersect the camp's perimeter. Taken from the north-west in 1993. © Crown copyright: RCAHMS. SC882008. Licensor www.rcahms.gov.uk.

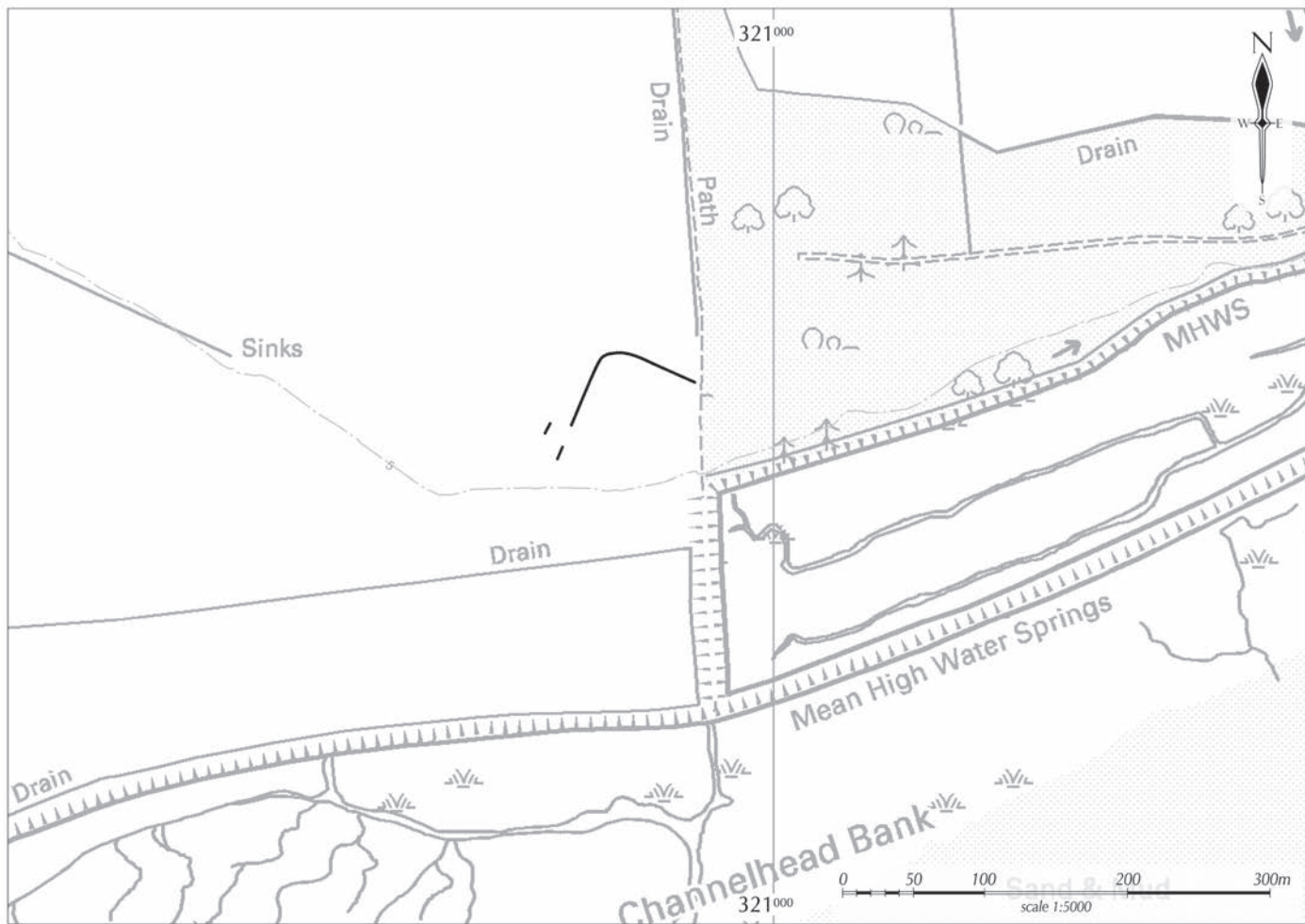


Illustration 197

St Madoes. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

St Madoes (illus 197)

(Nether Mains)

NO 2093 1955 NO 21 NW 39

The camp at Nether Mains, St Madoes, was first recorded as a cropmark from the air by St Joseph in 1967 (1969: 111). It lies on a level terrace immediately north of Channelhead sandbank on the River Tay. The Roman fortress and camps at **Carpow** lie across the Tay to the south.

Parts of two sides (at least 70m of the north-east and 85m of the north-west) have been recorded with a

rounded angle between them. There is an entrance gap and *titulus* in the north-west side. It is likely that the camp was small, owing to the position of the north-west *titulus* only 70m from the north corner. If the entrance gap is central, then the camp could measure about 140m and, if square, would enclose some 2ha (4.8 acres).

Scone Park (illus 47 & 140)

(Scone Palace Policies; Scone; Perth Hunt Race Course)

NO 1044 2715 NO 12 NW 14

This camp was first discovered from the air by St Joseph in 1952 (St Joseph 1955: 87), lying on an area of flat ground east of the River Tay and now occupied by Perth Hunt Race Course. The camp of **Grassy Walls** lies about 300m to the north and the Roman fort of Bertha is situated across the Tay. Parts of three sides have been visible through cropmarks, and the camp measures at least 540m from WNW to ESE by 401m transversely, enclosing a minimum of 21.6ha (53 acres), and possibly some 25ha

(63 acres). An entrance gap protected by a *titulus* is visible in the NNE side, and St Joseph recorded another in the SSW side (1969: 111), but this could not be identified from air photographs.

St Joseph placed a series of trenches through the SSW and NNE sides in 1968 and 1969, recording that the ditch was some 2.4m in width and about 1m in depth (RCAHMS St Joseph Collection: Notebook 5).



Illustration 198

Steeds Stalls, Gourdie. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Steeds Stalls, Gourdie (illus 47, 50 & 198)

(Hill of Gourdie; Gourdie)

NO 1155 4266 NO 14 SW 15

The site of Steeds Stalls has long been associated with the Romans, owing to the upstanding remains of some 'stalls' in its interior, with these interpreted as the advance guard of the Caledonian army, sent to watch the Romans in nearby Inchtuthil (Sinclair 1793: ix, 258–9; NSA 1845: x, 1025). Elsewhere, they are recorded as relating to the Picts (Wilson 1851: 86–7). The presence of a camp surrounding the stalls was first recorded by Flight Lieutenant Bradley from the air in 1941 (Richmond 1943: 47–9, fig 9; Crawford 1949: 76; St Joseph 1951a: 64).

The camp is situated on the eastern part of the Hill of Gourdie, some 3km NNW of the fortress and camps at **Inchtuthil**. A Roman quarry has been recorded some 700m to the south-west (Pitts & St Joseph 1985: 61), and

parts of a Roman road, possibly running from Inchtuthil to the quarry and Steeds Stalls, have also been identified (Maxwell & Wilson 1987: 27). The camp is almost square, measuring about 149m from NNW to SSE by 142m transversely, enclosing just over 2ha (5.1 acres). An internal ditch is visible separating the NNW and SSE parts of the camp, halfway through the camp, some 74m from the NNW side; an entrance gap is visible in the centre of this dividing ditch and in the centre of the SSE side.

Most of the site is under the plough, except for six or seven upstanding stalls. These are accompanied by a further five or six stalls visible as cropmarks. They have a tadpole-like appearance, with a round head some 4.5m in diameter and a tail some 6m in length leading out

towards the camp perimeter. Similar 'tails' are also visible as cropmarks at the back of the upstanding stalls, and with nine such tails visible, this suggests some fourteen stalls in total. The cropmarks are slightly confused where the inner ditch meets the eastern side of the camp, but there appears to be a further stall here, taking the total to potentially

fifteen such features. These features have been proposed as possible lime-kilns relating to the construction of the nearby fortress (RCAHMS 1994: 83). An alternative explanation that they formed a base for stone vaulting for a victory monument (Woolliscroft & Hoffmann 2006, 71–2) seems unlikely (see above, section 7f).

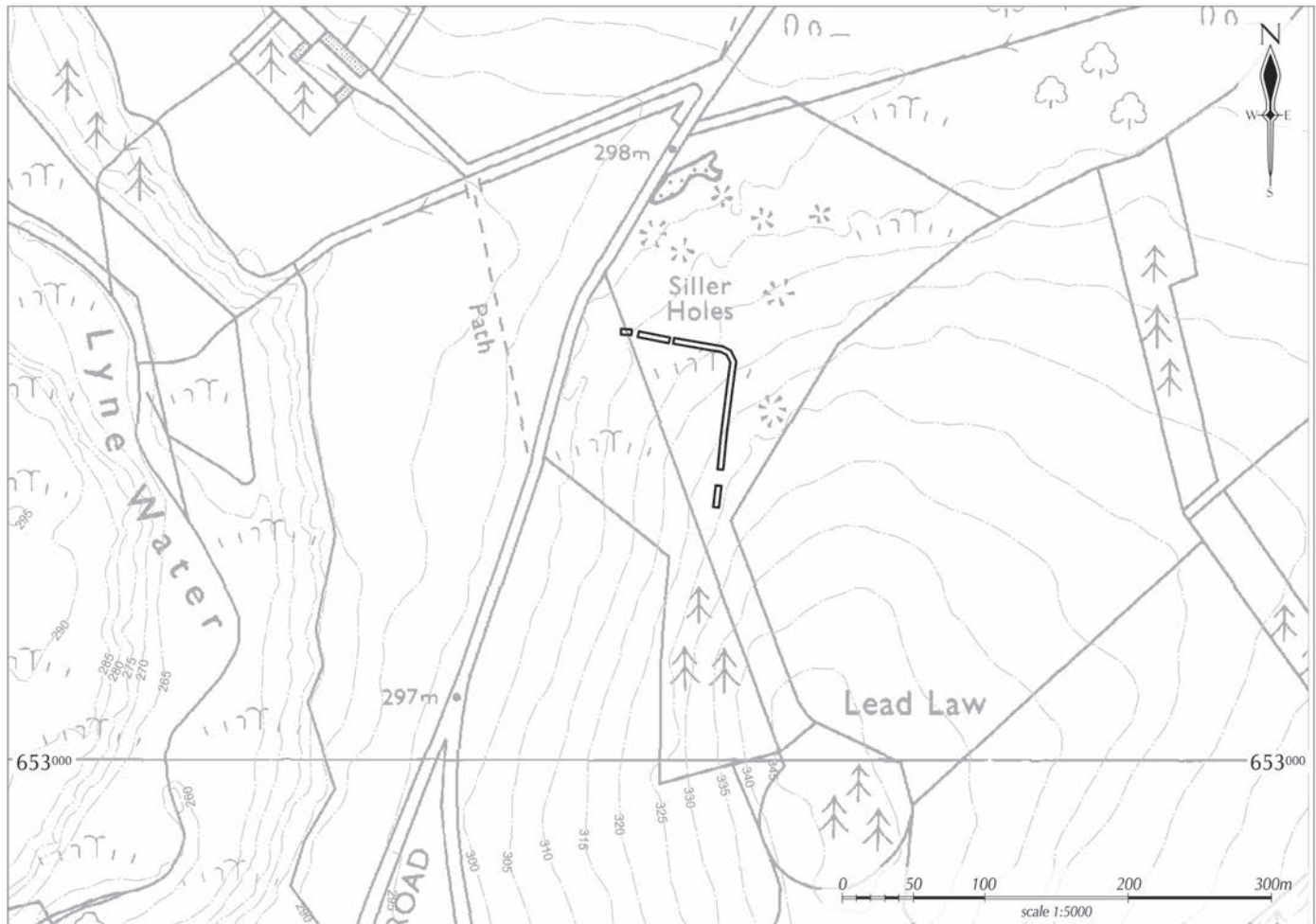


Illustration 199

Stonypath. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Stonypath (illus 199)

(Siller Holes)

NT 1446 5324 NT 15 SW 26

Formerly recorded as 'earthworks' during aerial survey in 1979 by RCAHMS, this camp lies adjacent to the remains of a silver mine known as the 'Siller Holes'. In 1994, reinterpretation through field survey by RCAHMS led to the recognition of two sides of a Roman camp. Some 110m of the east side together with over 80m of the north side is

currently known. The upstanding rampart measures about 3.5m in width and up to 0.9m in height above the bottom of the ditch, which measures 2.4m in width. No gates have been recorded. The line of the Roman road running up the east side of the Pentlands probably cuts through the camp, but the relationship between the two is unknown.

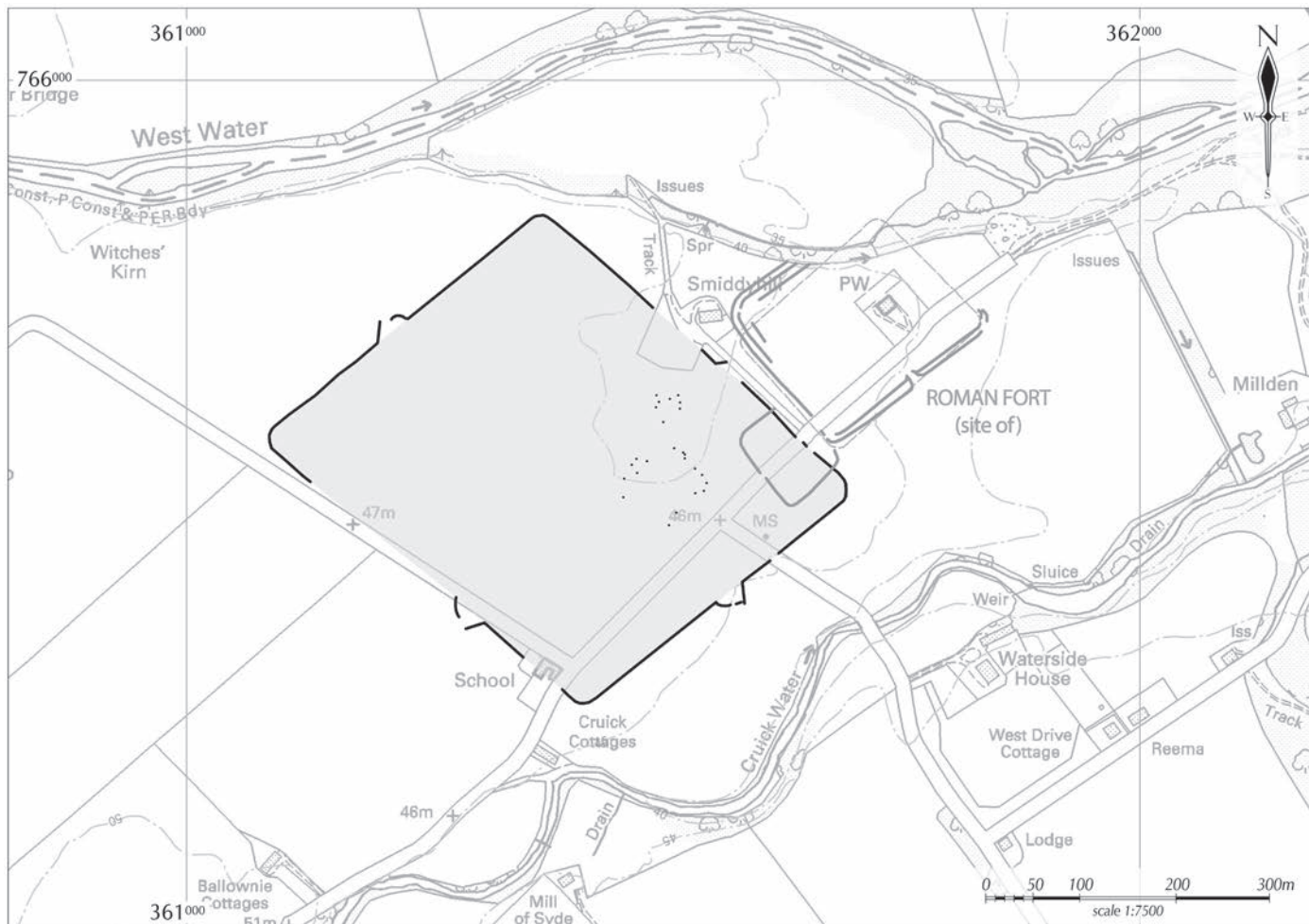


Illustration 200

Stracathro and other cropmarks in the area including the Roman fort and its annexe. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Stracathro (illus 42, 47 & 200)
(Inchbare)

NO 6137 6561 NO 66 NW 13

The camp at Stracathro was discovered from the air by St Joseph in 1955 (1955: 87), the neighbouring Roman fort being discovered two years later (St Joseph 1958: 91). It lies on level ground on a triangular spur between the West Water to the north and the Cruick Water to the east (both tributaries of the River North Esk). Stracathro Church lies immediately to the east, within the Roman fort, the annexe of which intersects the south part of the north-east side of the camp.

All four sides of the camp have been recorded through cropmarks, and it measures 442m from north-west to south-east by 370m transversely, enclosing 16.2ha (40 acres). All four gateways are recorded, in the centre of the north-west and south-east sides, and towards the south-east end of the other two sides. The entrances are protected by

an external *clavicula* ditch and oblique traverse, giving rise to the expression 'Stracathro-type' for the particular gate arrangement (despite the fact that St Joseph noticed the similarity of the gates to the camp at **Dalginross** (1955: 87), recorded two centuries earlier by Roy; see above, section 7b).

St Joseph excavated a series of trenches in 1967, recording that the ditch was up to 2.9m in width and up to 1.2m in depth (RCAHMS St Joseph Collection: Notebook 4). The *clavicula* on the north-west side was also sectioned, revealing a shallow V-shaped ditch, measuring about 2.4m in width and 1m in depth (St Joseph 1970a: 171–5). A number of pits are visible within the camp, but these are of limited regularity and their association with the camp is unknown.



Illustration 201

Strageath Cottage and the nearby Roman fort of Strageath. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Strageath Cottage (illus 47 & 201)
(Strageath)

NN 8904 1803 NN 81 NE 16

This camp is situated on fairly level ground less than 500m west of the Roman fort at Strageath. It was first recorded as a cropmark from the air in 1969 by Cambridge University, and confirmed through further aerial survey by RCAHMS and excavations by St Joseph (Maxwell 1981: 41). However, a Roman camp is clearly marked in this location to the west of Strageath fort and annexes, with four *tituli*, on Knox's *Map of the Basin of the Tay* in 1850. In addition, Maitland refers to a large camp occupying

upwards of 30 acres at Strageath (1757: 196), and this could also be this camp.

The camp measures about 470m from WNW to ESE by 292m, enclosing about 13.7ha (34 acres). No obvious entrances are known. Excavations by St Joseph in 1979 recorded that the ditch on the south side was V-shaped, measuring about 1.3m in width and 0.6m in depth (RCAHMS St Joseph Collection: Notebook 8).

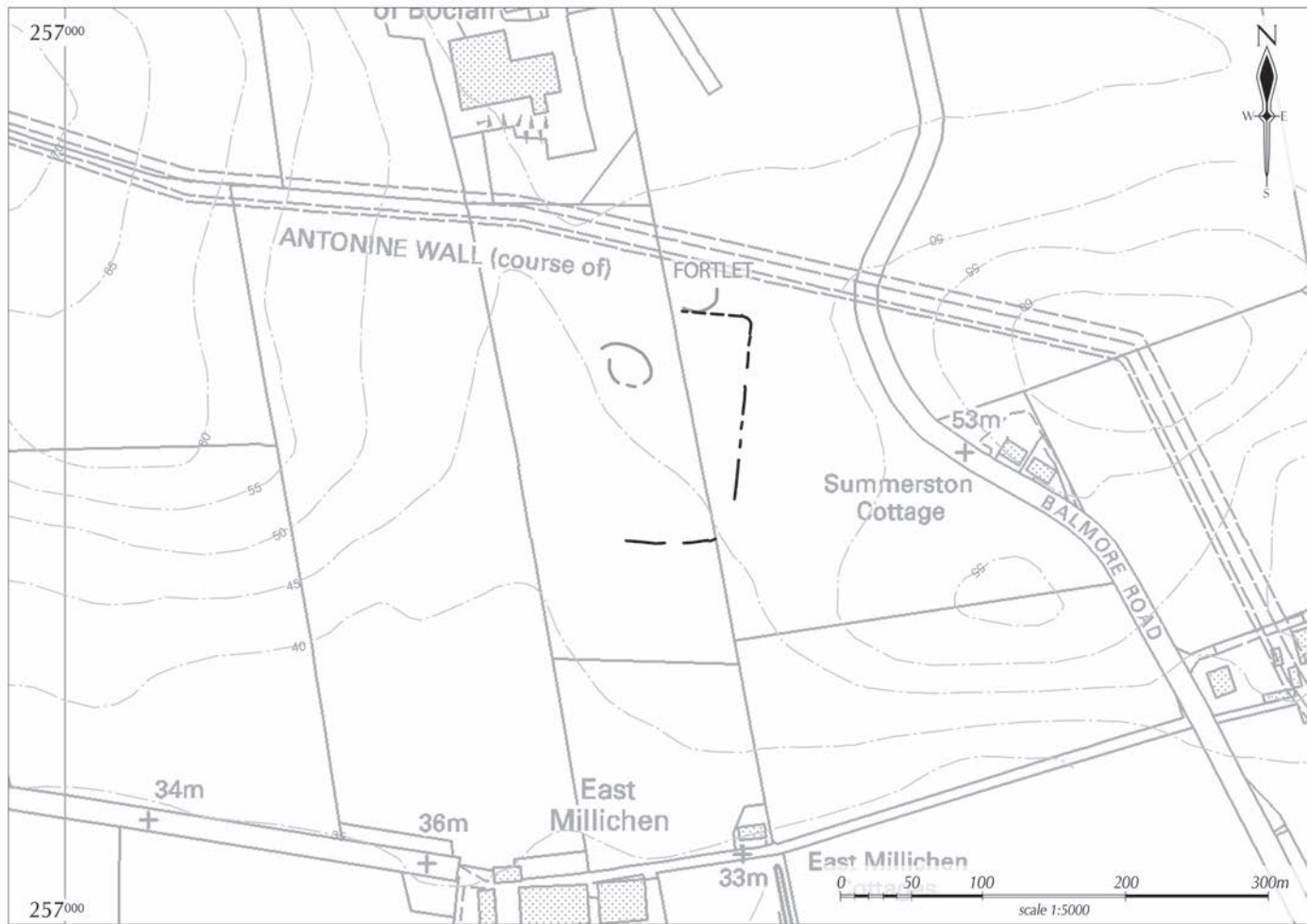


Illustration 202

Summerston and the Antonine Wall and adjacent Roman fortlet. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Summerston (illus 47 & 202)

(Temple of Bocclair)

NS 5742 7237 NS 57 SE 18

The camp at Summerston lies immediately south of the Antonine Wall, next to a nearby fortlet, the ditch of which was aligned to deliberately avoid the camp. It was first discovered from the air by Maxwell in 1977 (Goodburn 1978: 413). Parts of three sides of the camp have been visible as cropmarks, and the camp measures about 162m from north to south by at least 75m transversely and possibly 140m, enclosing an area of some 2.3ha (5.9 acres). It has not been possible to detect any entrances in the sides – there are breaks in the east and south sides, but

these may be due to partial cropmarks rather than obvious entrance gaps. Excavation in 1980 has dated the camp to the Antonine period, as it is of a single construction phase and slightly pre-dated the adjacent fortlet (Hanson & Maxwell 1986: 118–19). They also recorded that the ditch was up to 1.6m in width and 0.75m in depth (Maxwell & Hanson n.d.).

Illustration 202 includes information on the north side from Maxwell & Hanson's excavations (Maxwell & Hanson n.d.).

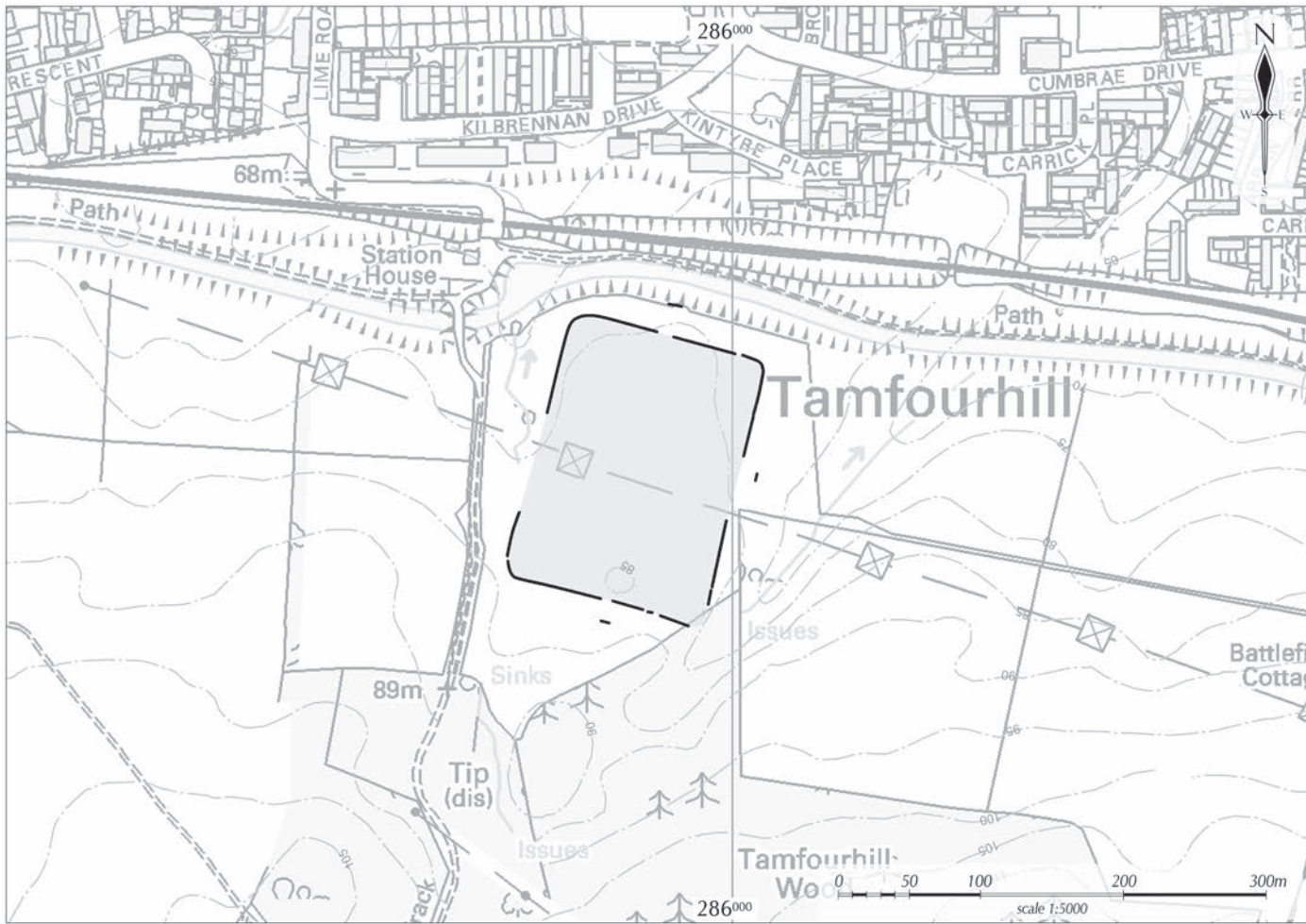


Illustration 203

Tamfourhill. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Tamfourhill (illus 45, 47 & 203)

NS 8594 7946 NS 87 NE 13

The camp at Tamfourhill was discovered as a cropmark from the air by Maxwell in 1977 (Maxwell & Wilson 1987: 29), lying in a field just to the south of the village of Tamfourhill, between the Edinburgh to Glasgow railway line and Tamfourhill Wood. The field slopes gently downwards towards the north with the camp lying about 300m south of the Antonine Wall, and about 400m south-west of the fortlet at Watling Lodge.

The camp measures about 190m from NNE to SSW by 140m transversely, enclosing an area of some 2.7ha (6.7

acres). Entrance gaps with *tituli* have been recorded in the centre of the NNE and SSW sides, and to the north of centre on the ESE side, suggesting that the camp faced NNE towards Watling Lodge.

The new canal extension for the Falkirk Millennium Link Project, linking the Union Canal with the Forth and Clyde Canal, skirts around the north side of the camp. The *titulus* on the NNE side was recorded during the construction works, but not excavated (Gooder & Duffy 2000).

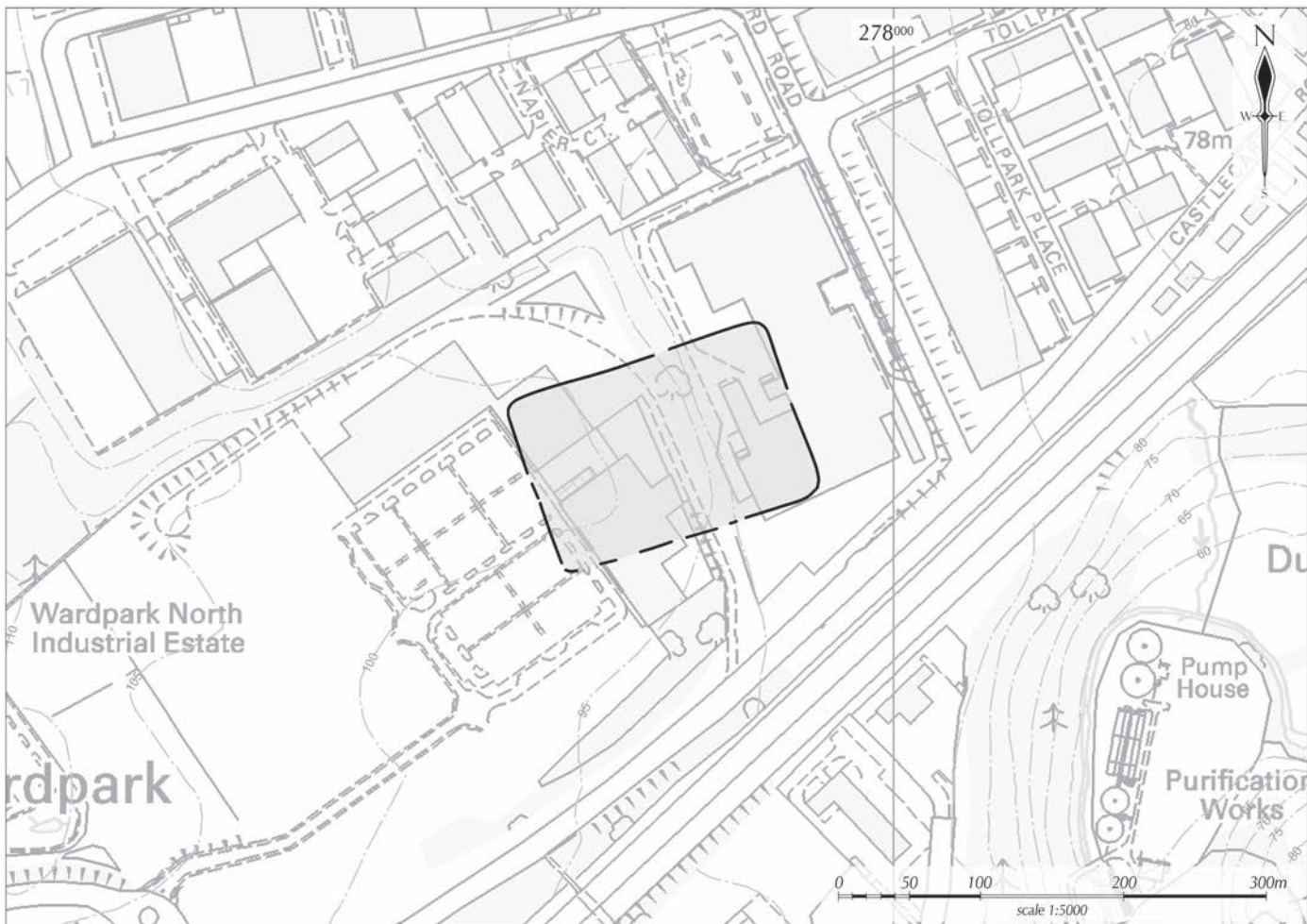


Illustration 204

Tollpark. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Tollpark (illus 47 & 204)

(Garnhall)

NS 7783 7742 NS 77 NE 13

The remains of the camp at Tollpark were first discovered through cropmarks by St Joseph in July 1949 (St Joseph 1951a: 62). It is situated some 410m south of the Antonine Wall, approximately midway between the forts of Castlecary and Westerwood. The two camps at **Garnhall** lie a short distance away to the north-east.

The site lies on ground which slopes gently from west to east, about 400m south-east of the former farm of Tollpark, but the entire area is now covered by the Wardpark North Industrial Estate. Early editions of the Ordnance Survey map (Dunbartonshire 1864: sheet xxv) show that the area lay under agricultural fields, bisected by a trackway that ran NNW to SSE through the camp to Faulds Cottage to the south.

The camp measures about 186m from WSW to ENE by about 130m transversely, although it is slightly wider at the west than the east by some 10m. It encloses an area of about 2.5ha (just over 6 acres). The majority of the perimeter has been recorded from the air (in 1949 and 1951) but could not be detected through probing by Feachem in 1956 (Feachem 1958: 329). A probable entrance gap was recorded in the ENE sides, and two apparent entrances recorded in the WSW side during excavations (see below), but no additional gate protection, such as *tituli*, were noted (White forthcoming); there are also slight gaps in the cropmarks on the two longer sides (although these are not necessarily due to the presence of entrances). It is possible that the track that crosses the

camp represents the location of the entrance on one side as the track kinks in the centre. Evaluation and trial trenching in 1998 could not locate any remains of the camp and suggested that previous development work had removed all trace of archaeological deposits through scarping into the side of the slope on which the camp lay (Duffy 1998b: 11).

However, excavations in 2005 and 2006, following the removal of the OKI factory, recorded significant survival of the ditch (228m of which was excavated),

although no other features associated with the camp were identified. The ditch was generally V-shaped, and varied in width from 1.4m to 4m and was up to 1.4m in depth. It did not appear to be deliberately in-filled but seemed to have gradually filled up owing to the slumping of the rampart material. A large boulder in part of the ditch appeared to have been modified to continue the ditch's profile. Later recuts of the ditch were thought to be related to agricultural drainage (White forthcoming).

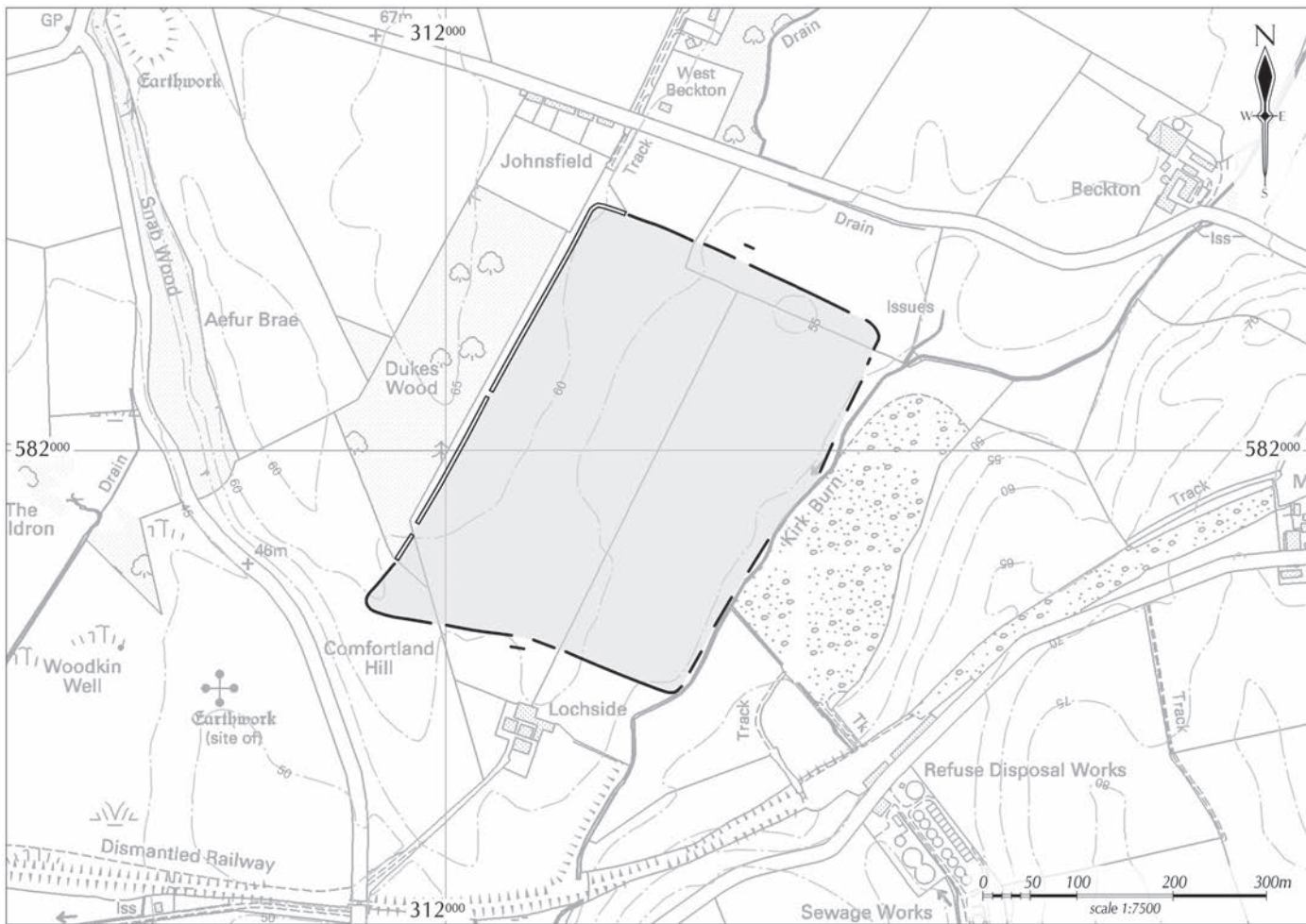


Illustration 205

Torwood. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Torwood (illus 47 & 205)

(Lochside; Torwood Moor)

NY 1220 8198 NY 18 SW 11

The camp at Torwood, Lochside, lies on gently sloping ground east of the Dryfe Water close to its confluence with the River Annan; the Roman fort of Ladyward is sited some 600m to the west. First recorded in 1769 by Roy (1793: Pl.VII), a small part of the camp survives as an upstanding earthwork, with most of the remainder revealed through cropmarkings on aerial photographs.

The camp measures about 452m from north-east to south-west, although it has a pronounced corner extension

to its western angle; its transverse dimension is 330m, and the camp enclosed 15.3ha (almost 38 acres). Entrance gaps protected by *tituli* are visible in the north-east and south-west sides; two *tituli* were recorded on the north-west side in Dukes Wood in 1956 (RCAHMS St Joseph Collection: Notebook 1). These were recorded as measuring up to 11m long, 3.3m wide with a ditch 1.8m wide (RCAHMS St Joseph Collection: Notebook 1) but are no longer visible today.

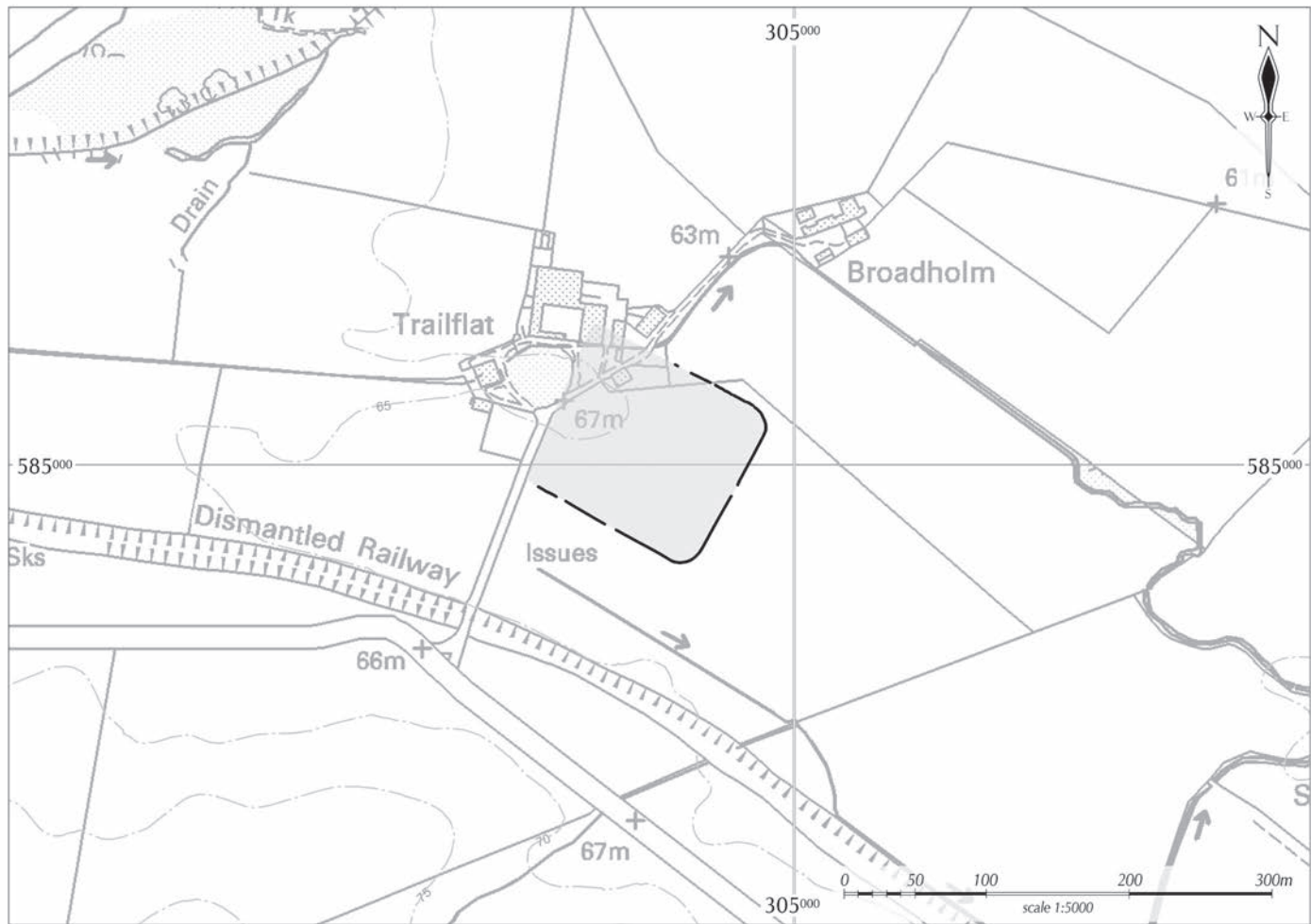


Illustration 206

Trailflat. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Trailflat (illus 47 & 206)

NY 0488 8501 NY 08 NW 11

The camp at Trailflat was recorded in 1983 by RCAHMS from the air, on level ground above the Water of Ae, about 1.8km ESE of the fortlet at Murder Loch, close to the presumed line of the Roman road from Annandale to Nithsdale. The whole of the south-east side, some 120m, has been recorded through cropmarks, together with up

to 123m of the adjacent sides; the north-west side has not been recorded but probably lies under the farm buildings. The camp enclosed at least 1.4ha (3.5 acres) and probably not much more. An entrance gap is visible in the centre of the south-east side.

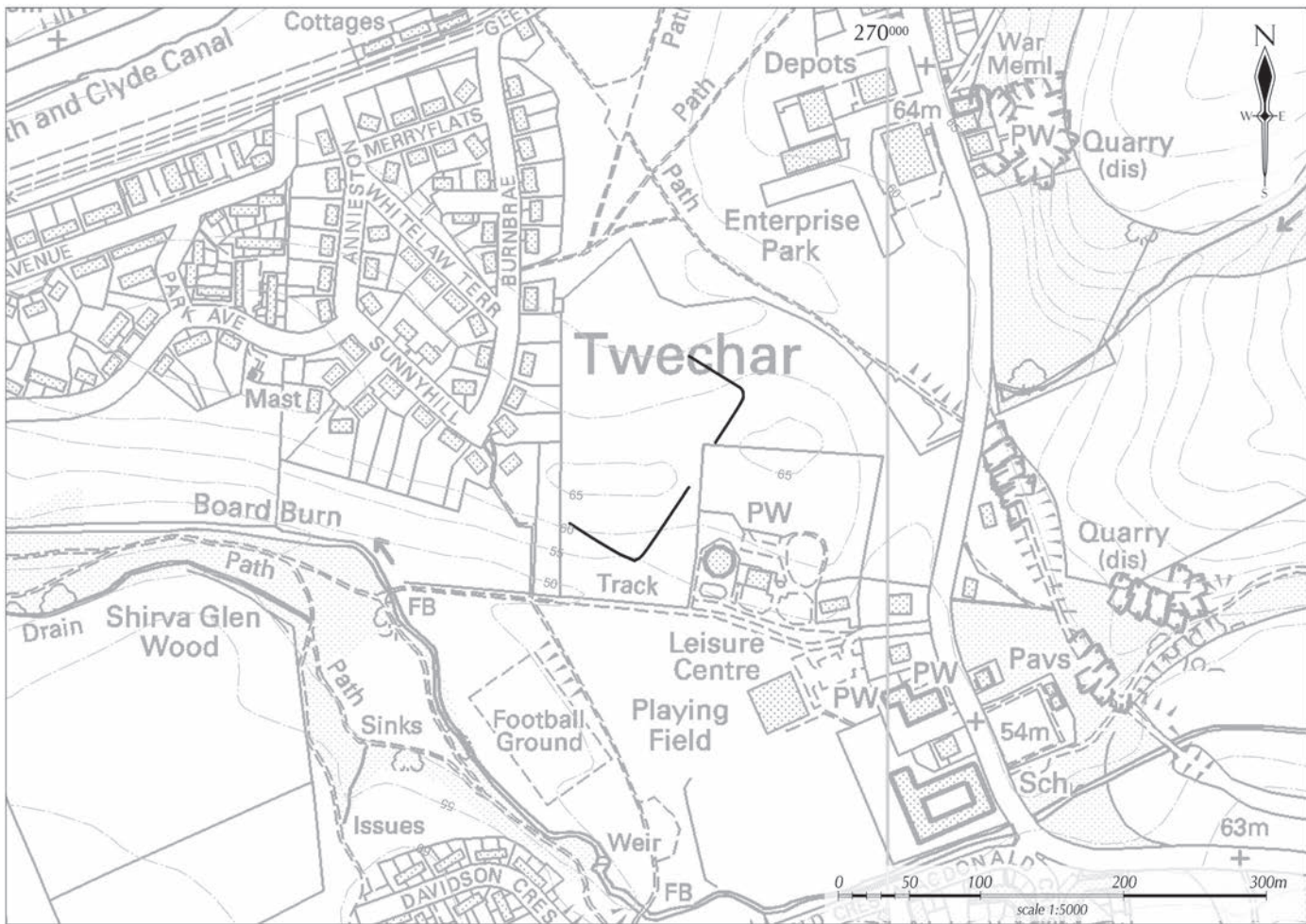


Illustration 207

Twechar. (The Antonine Wall runs to the north.) Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Twechar (illus 47 & 207)

NS 6980 7544 NS 67 NE 11

This camp lies immediately east of the village of Twechar, in the field between the houses and the church and leisure centre. It is situated on a ridge in the valley about 1km to the west of Bar Hill fort, and about 300m south of the Antonine Wall. It was first discovered from the air by Maxwell in 1976 (Goodburn 1978: 416), and parts of three sides have been visible, including most of the south-east side, 144m long, with a possible central entrance gap (although the cropmark has been interrupted by the corner of the enclosure around the church). Up to 60m of the

north-east and south-west sides have also been recorded before the cropmark is lost under the houses of Twechar village. If the camp were square in form, it would enclose some 2.1ha (5.2 acres).

The camp probably relates to the construction of the Antonine Wall barrier. It is unlikely that it is a construction camp for the fort at Bar Hill because another camp has been recorded there to the rear of the fort (and given the climb required to reach the fort when there was ample space on the Hill).

Ulston Moor (illus 47 & 177)

Ulston Moor I: NT 6873 2165 Ulston Moor II: NT 6873 2165
NT 62 SE 41 NT 62 SE 41

First recorded in the 1950s by St Joseph from the air (1955: 81; 1958: 87; 1961: 121), the two-phase cropmark camp at Ulston Moor lies on the south-west side of Dere Street, opposite the camps of **Millside Wood** and a little way from the fort and camp at **Cappuck**. The two camps share part of at least two sides, with the north-east side unknown, but it may be located close to the road which sits on Dere Street. At least 324m, south-west to north-east, of the length of the larger camp (I) are known, and 253m

transversely; the camp probably enclosed a little over 9ha (22 acres). Entrance gaps protected by *tituli* are visible in the north-west and south-east sides, with an entrance gap in the centre of the south-west. The reduced camp (II) has a length of at least 262m and probably enclosed around 7.5ha (over 18 acres). It appears to share the north-west and south-east entrance gaps with camp I, and a further entrance gap with *titulus* is visible in the centre of its south-west side.



Illustration 208

Wandel and the nearby Roman fortlet and stretch of Roman road. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Wandel (illus 208)

NS 9440 2675 NS 92 NW 16

Discovered in 1961 by St Joseph from the air, the camp at Wandel lies on gently sloping ground on the Roman road on the east bank of the River Clyde. Parts of two sides have been recorded. It encloses a small fortlet of presumed but unconfirmed Antonine date (RCAHMS 1978a: 37) and probably crosses the Roman road, possibly suggesting that it may be earlier than both. Some 390m of the ESE side have been recorded, together with the south-eastern

corner angle and 45m of the SSW side. The southern stretches of camp defence survive as an upstanding earthwork, the northern parts as cropmarks. Excavations by RCAHMS on an upstanding section revealed that the rampart survived 2.3m in width and 0.5m in height, above a ditch that was 3.4m in width and 1.1m in depth (RCAHMS 1978a: 136).



Illustration 209

Ward Law and the cropmark leading up to the hillfort. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Ward Law (illus 39, 47 & 209)

NY 0240 6687 NY 06 NW 4

First recorded in 1772 as a Roman fort by Pennant (1776), this camp is now known only as a cropmark lying just north of the hillfort which crowns the summit of Ward Law hill. The fortlet at Lantonside lies just over 1km to the WSW, the two overlooking the confluence of the River Nith with the Solway Firth.

The camp measures 225m from WSW to ENE by 171m transversely and enclosed 3.8ha (9.4 acres). Excavations on the ditch have suggested that it was rock-cut in places, up to 2.4m in depth (cut through 1.8m of rock) and 4.5m in width, with a gutter measuring some 0.3m wide and 0.15m deep (Truckell 1952: 142).

A *titulus* is visible in the WSW side, but there is no entrance gap at this point, suggesting either that this was

reused at some point and the entrance either opened or closed, or that there was an additional ditch through the entrance obscuring the cropmark, which does appear to narrow slightly at this point. These observations were confirmed by geophysical survey in 2009 (Hüssen *et al* 2009b). However, the earlier excavations on the site, while revealing evidence for the ditch cutting through the natural rock, were not recorded as demonstrating evidence for recutting of the ditch. The cutting of a 'temporary' camp ditch through rock demonstrates a significant expense of manpower.

On the NNW side, there is a break in the ditch for an entrance which is protected by four *tituli*. It was this discovery which led to the reclassification of the site as a

camp rather than a fort (Maxwell & Wilson 1987: 23–4). Indeed, no such complex arrangement is known from other forts or camps in Britain.

Immediately south of the camp, running from its SSE side close to the south corner, there is a further linear cropmark running to the hillfort which is sited less than 50m away. This linear cropmark has a clear entrance gap, protected by a *titulus* to its west. G D B Jones suggested that the hillfort was incorporated as a defensive feature for a period (Goodburn 1978: 419), and Truckell postulated that a signal station may have been built on the hillfort (information from RCAHMS). The site is

also proposed as a 15th-century beacon height (Hewison 1912: 99). While the cropmarks are clearly visible, the ‘signal station’ on the hillfort has not been confirmed. The presence of this outwork, if Roman in date, the rock-cut ditch and the additional *tituli* confirm the site as one of the more unusual camps in Scotland, and suggests perhaps a longevity in its occupation. No internal features were recorded during geophysical survey in 2009, although an underlying geological anomaly meant that only limited evidence could be recorded (Hüssen *et al* 2009b).

Wester Carmuirs (illus 47 & 167)

(Lochlands)

NS 8515 8055 NS 88 SE 27

To the west of **Lochlands Three Bridges**, south of the main Lochlands complex and only 500m north of the Antonine Wall, lies the cropmark camp at **Wester Carmuirs**, first recorded in 1957 by St Joseph from the air (1958: 89). This camp is slightly irregular, but measures about 245m from NNE to WSW by 225m, enclosing almost 5.3ha (13 acres). Gaps, some of which may be for entrances, are visible on all four sides. There have been no excavations on the camp and no dating evidence is available. A further rounded corner visible to the west suggests that there may be another in this vicinity (see

Wester Carmuirs II, possible camps). Owing to the similarity of the size of this camp with some of the presumed construction camps for the Wall (**Garnhall I**, **Balmuildy**, and possibly **Dullatur I**) it is usually associated with the Wall, although the camps do have slightly differing morphology. It is also suggested that it may equally have been a construction camp for the fort of Camelon (Hanson & Maxwell 1986: 118), although it had earlier been tentatively suggested that it may be Agricola in date (Maxwell 1981: 42). A construction camp for the Wall seems the most likely on current evidence.

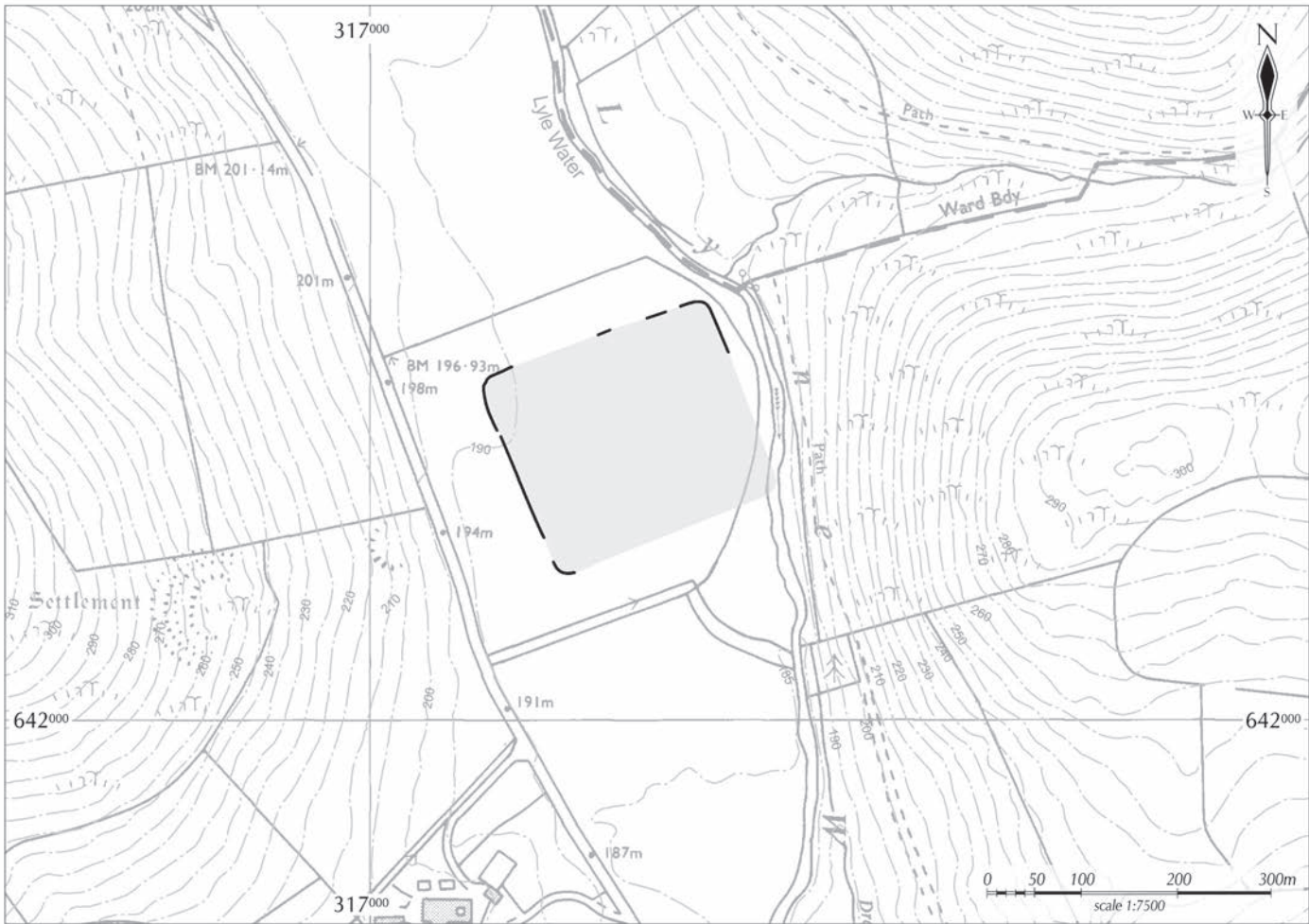


Illustration 210

Wester Happlew. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Wester Happlew (illus 47 & 210)

NT 1727 4230 NT 14 SE 48

First recorded in 1992 by RCAHMS through cropmarks from the air, the camp at Wester Happlew lies just to the east of the A72, the presumed line of the Roman road north-west of **Lyne**, and on level ground on the west

bank of the Lyle Water. Measuring 256m from ENE to WSW by 223m, it enclosed just over 5.6ha (14 acres). No obvious entrances are known.

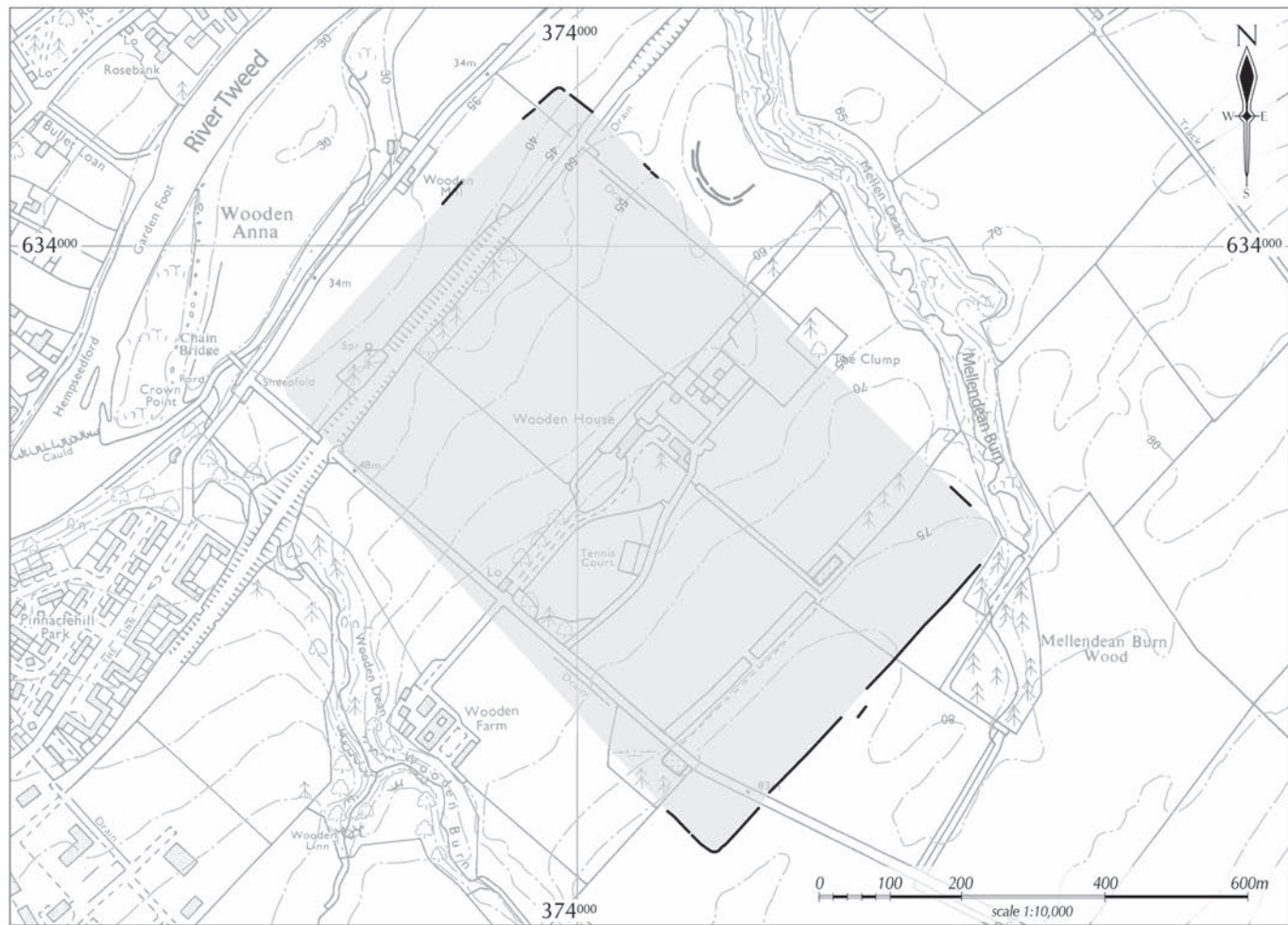


Illustration 211

Wooden Home Farm and other cropmarks in the area. Reproduced by permission of Ordnance Survey on behalf of HMSO.
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Wooden Home Farm (illus 47 & 211) (Wooden)

NT 7410 3380 NT 73 SW 40

Stretches of the large camp at Wooden Home Farm have been recorded through cropmarks from the air since 1976 (Maxwell & Wilson 1987: 32), lying on the south side of the River Tweed east of Kelso. In the 1980s the camp was believed to measure some 450m by 365m, enclosing about 16ha (Maxwell & Wilson 1987: 32), but air photographs taken by RCAHMS in 1996 revealed the north corner and additional stretches of the north-east and north-west sides beyond the dismantled railway at

Wooden Mill, and a further stretch of the north-east side adjacent to a double-ditched prehistoric fort near the Mellen Dean. These confirmed the large size of the camp, which measures 895m from north-west to south-east by 600m transversely, enclosing around 55.3ha (just over 136 acres). An entrance gap with *titulus* is visible in the centre of the south-east side. Excavations by Maxwell in 1982 on the south-west side recorded a ditch which measured about 3.75m wide and 1m deep (Maxwell 1982b: 3).

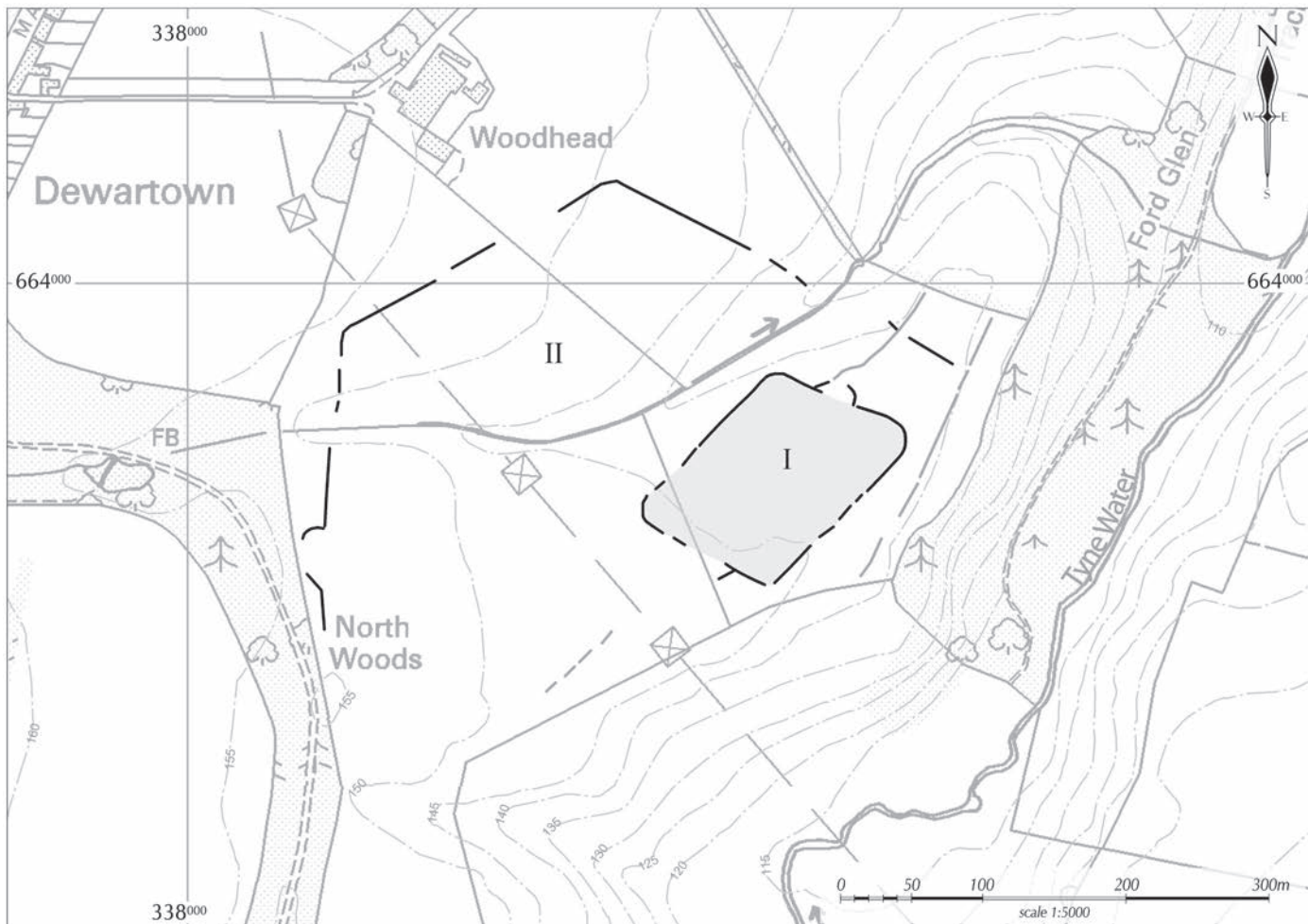


Illustration 212

Woodhead I–II and other cropmarks in the area. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Woodhead (illus 9, 47 & 212)
(Ford)

Woodhead I: NT 3840 6385
NT 36 SE 18

Woodhead II: NT 3827 6388
NT 36 SE 18

The two cropmark camps at Woodhead lie about 1km to the north-west of the three camps at **Pathhead**, on a ridge above the Tyne Water. Both were recorded in 1976 by Maxwell from the air, with camp II irregular in form and acting as a possible additional enclosure surrounding camp I. This smaller camp measures 140m from north-east to south-west by 111m transversely, enclosing 1.5ha (3.8 acres). Entrance gaps with Stracathro-type gates are visible in its south-west and north-east sides. Excavations in 1983 revealed that the ditch on the north-west side was V-shaped, 2.1m wide and 1m deep. There were traces of turf, which may represent the remains of a rampart.

The oblique traverse on the south-west gate was much shallower at 0.5m wide and 0.6m deep, and the external *clavicula* on the north-east side was V-shaped, 2.1m wide and 1m deep (Maxwell 1983: 177–8).

A larger polygonal enclosure (camp II) appears to enclose camp I. Of this enclosure, the whole of the north-west side (217m) plus parts of the adjacent north-east (at least 272m) and west sides (at least 198m) are known, with a Stracathro-type gate on the west side. The maximum distance between the known west and north-east sides is 472m, and it would have enclosed at least 8ha (19.8 acres) and possibly some 12ha (29.6 acres).

A series of linear cropmarks are visible in the fields, with one apparently extending the oblique traverse of the north-east gate of camp I. Maxwell postulated that the two camps at Woodhead may represent a compound for

timber logging, perhaps connected with the construction of the Flavian fort at Elginhaugh, lying 7km to the north (1981: 44–5; 1983: 180–1; see above, Chapter 2.2).

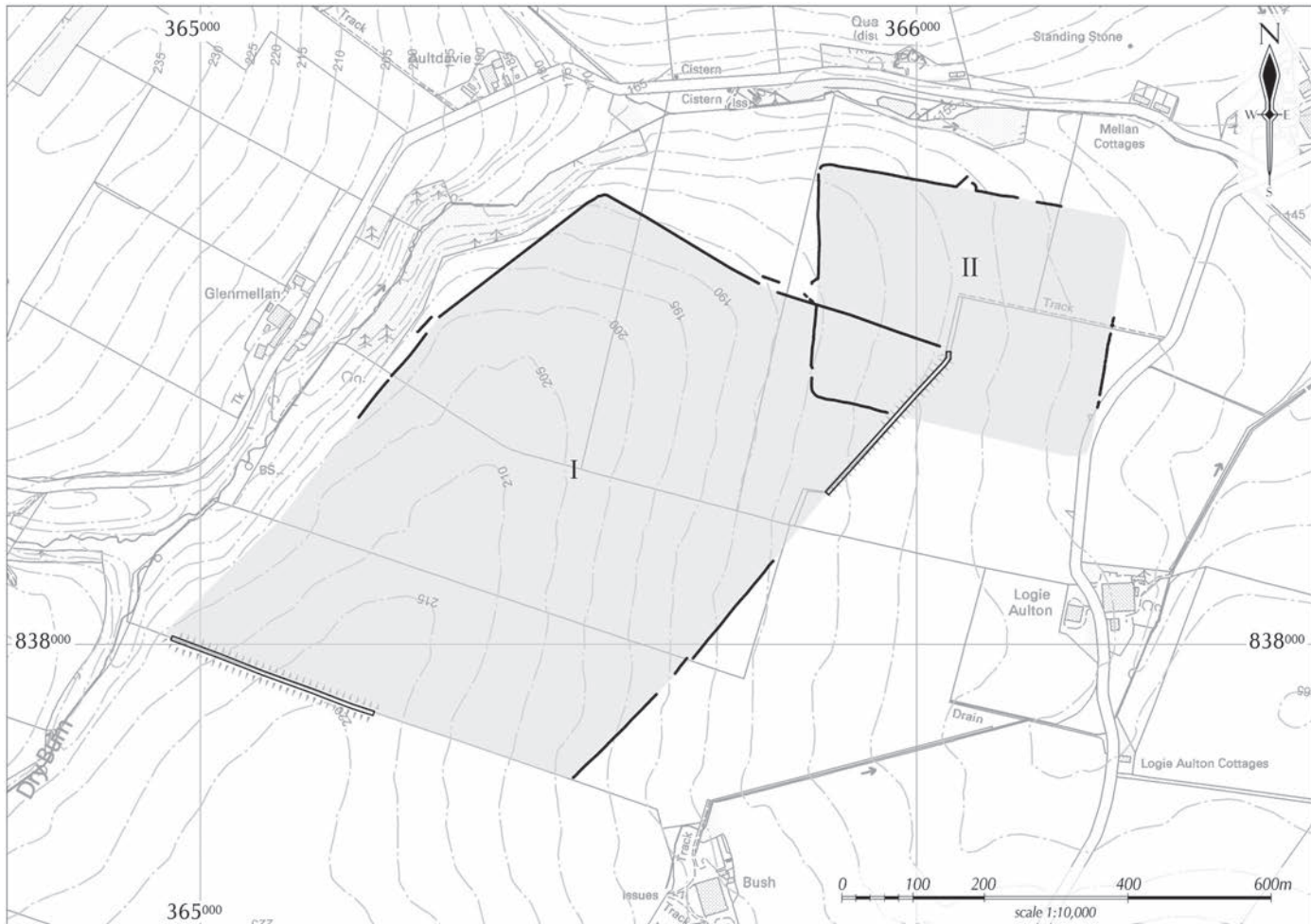


Illustration 213

Ythan Wells I and II. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Ythan Wells (illus 17, 47 & 213)

(Glenmailen; Glenmellan; Re-dykes; Rae-dykes; Ithan)

Ythan Wells I: NJ 6551 3818

NJ 63 NE 2

Ythan Wells II: NJ 6603 3847

NJ 63 NE 2

Two camps are now known at Ythan Wells, close to the source of the River Ythan in Strathbogie. The camps, which overlap one another, lie on a fairly level plateau with good views in all directions, and are approximately midway between the camps of **Logie Durno** and **Burnfield**.

Camp I was recorded by Captain (later Colonel) Shand in 1785, and planned by T McDonald in 1789 (Newte 1791: 301–2; Stuart 1868: 28); his plan was published by Roy (1793: Pl. LI; also see Crawford 1949: Pl. XX). It is perhaps surprising that, as it was the most northerly camp known for a considerable time

(**Auchinhove** was discovered in 1949, and also see the possible camp at **Bellie**), it did not become a favoured location of the battle of Mons Graupius, although Haverfield did state that ‘the site agrees ill with the description of the battle of Mons Graupius’ (1914: 9). Macdonald (1916) provides a useful summary of the historical sources for the camp.

The camp lies in arable and improved pasture fields, with parts of its south-west and south-east sides still preserved in field boundaries. Here, the rampart measures some 3.7m in width and up to 0.7m in height. Parts of the north-west, north-east and south-east sides are visible as cropmarks on air photographs. Crawford reported that the whole of the north-west side could be traced on the ground as a stony mound (1949: 120), but little trace of this side survives today beyond a very slight terrace at one point. The camp measures about 805m from north-east to south-west by 590m, enclosing an area of some 45.3ha (112 acres). Two of the presumed six *tituli* are clearly visible as cropmarks: in the northern part of the north-west side and in the centre of the north-east side. The ditches change alignment slightly at both points.

Haverfield & Macdonald carried out excavations at the site in 1913, and recorded that the ditch was at least 2.7m wide and at least 1.2m deep on the south-west side, noting that the accompanying rampart must have been

some 6m wide, constructed of loose earth and stones, on a bed of clay some 7cm thick. They also recorded that the rampart was still up to 2.3m high in places (on the outside) and probably 5.5m wide. Elsewhere the maximum width of the rampart was 3.6m. They also sectioned one of the *tituli* on the north-west side and opened up exploratory trenches in the interior (Macdonald 1916: 357–8).

Further excavations were conducted on the camp in 1968 by St Joseph, largely to determine the relationship between it and a second, overlapping camp, discovered from the air that year to the east (1969: 112–13). The ditch of camp I on the north-east side was recorded as V-shaped, measuring about 3.4m in width and almost 1.2m in depth (St Joseph 1970a: 175).

Parts of all four sides of camp II are recorded as cropmarks and the camp measures about 412m from WNW to ESE by about 323m transversely, enclosing some 13.5ha (33 acres). Stracathro-type gates are visible in the north and west sides.

The 1968 excavations established that camp II was earlier than its larger neighbour. The dimensions of the ditch of camp II were very small, measuring some 1.2m in width and barely 0.6m in depth (St Joseph 1970a: 175–7). St Joseph excavated a further fourteen trenches to establish the north ditch of the camp in 1971 (RCAHMS St Joseph Collection: Notebook 6).

ADDENDUM

Lochrutton (not illustrated)

NX 8934 7316 NX 87 SE 38

At least one camp at Lochrutton was discovered as a cropmark during analysis of Cambridge University air photographs by Cowley (RCAHMS) in early 2010, with further aerial survey (by RCAHMS) in June 2010 providing additional information. It lies on the west side of Lochrutton Loch, south of a Roman fortlet (Hunter 2005: 402) and close to the presumed line of the Roman road from Dalswinton to Glenlochar (Wilson 1989: 8).

Around 290m of the ESE side of the camp have been recorded, together with adjacent rounded corners and a possible entrance gap south of centre; 180m of the NNE side are known, with a possible entrance gap, before the side turns into a rounded angle to the south. The camp then appears to continue this same trajectory of the NNE side, but located some 25m to the south of the original line, for a further 135m before a further corner angle

is recorded. The WSW side is visible (measuring some 240m) leading to the south-west corner angle. A similar scenario seems to exist for the SSW side, suggesting that the camp may have been two-phase or have an annexe, there is a hint of a dividing cropmark in the northern part of the camp but no comparable cropmark to the south. This would suggest that the eastern segment of the camp enclosed around 5.2ha (nearly 13 acres) and the western, 3.3ha (just over 8 acres), enclosing around 8.5ha (21 acres) in total.

Immediately south-west of the camp lies a rectangular enclosure measuring at least 100m from NNE to SSW by around 65m transversely with a smaller enclosure, some 65m by 65m attached to its SW end. These structures are reminiscent of some of the small Roman camps recorded at **Lochlands Three Bridges**.

PROBABLE ROMAN CAMPS

Bankhead Kirkconnel

(Kirkconnel)

NS 747 120 NS 71 SW 11

St Joseph suggested that he had located a fortlet and possible marching camp at Bankhead in the 1950s, through cropmarks on air photographs, which were subsequently confirmed by excavation (Clarke & Wilson 1960: 136). But the air photographs that St Joseph used to detect the site could not be located – it is possible that these were not Cambridge University photographs. The RCAHMS

record states that traces are visible on RAF air photographs (CPE/Scot/324 – 3429–30), but nothing is visible at the location given. The camp is alleged to measure about 213m by 183m, thereby potentially enclosing 3.9ha (9.6 acres). Clarke & Wilson's excavations recorded that the ditch measured some 1.8m in width and 0.6m in depth (1960: 136).

Bar Hill 'structure' (illus 83)

NS 7073 7592 NS 77 NW 8

The Roman fort on Bar Hill was excavated between 1902 and 1905. During these excavations, what was interpreted as an 'Early Fort' was uncovered lying underneath the Antonine Fort (Macdonald & Park 1906: 11–15). The site of the fort itself lies on the top of Bar Hill, at the highest point for any fort on the Antonine Wall. Just to the east lies the presumed Iron Age fort on Castle Hill, but the site commands good views to the north as well as along the Antonine Wall to east and west.

The first excavations of that 'Early Fort' recorded its unusual plan, much of which can be traced on the ground today as a shallow depression: an inner rectangular enclosure measuring about 58m from north-east to south-west by 49m, enclosing some 0.28ha (0.7 acres); an annexe to the south-west; and outer ditches on the south-east, north-east and north-west sides, with part of the north-west side undetected. The inner enclosure has a single entrance gap in the centre of the north-east side, and there is a staggered entrance to the north of this in the outer ditch. The excavations on the line of the ditch confirmed that it was V-shaped, ranging in width from 2.4m to 3.3m and in depth from 1.1m to 1.4m. The excavators noted that the absence of finds suggested a brief occupation; and the presence of about 0.6m of silt in the ditches prior to the building of the fort suggested that the site had long been abandoned. This led to the interpretation of the site as one of the Agricolaean *praesidia* on the Forth and Clyde isthmus (Macdonald & Park 1906: 15, 129–30). (It was a further 70 years before the probable Flavian fortlet of Mollins was discovered by aerial survey, about 4km due south of Bar Hill (RCAHMS 1978a: 160).)

Excavations between 1978 and 1982 by Keppie agreed with the outline of the 'fortlet' but did not agree with its interpretation as a Flavian outpost. Steer had earlier noted that the site might relate to the construction of the Antonine Wall owing to its similarity to other Antonine sites, including the fortlet at Duntocher (1960: 90). Feachem suggested that the remains may represent Iron Age activity, although this has not generally garnered favour (Robertson *et al* 1975: 8; Keppie 1985: 52). Keppie's excavations gave similar ditch dimensions to those noted earlier, of 2m in width and 1.2m in depth on the south side, although this was not consistent throughout and the ditch was recorded as U-shaped and unusual in places. A rampart of yellow clay was also recorded on the south-east side, some 2.2m in width and 0.2m in height. In addition, various activities were noted in the interior that were assumed to be contemporary with the 'fortlet', including areas of burning (with a hearth of at least two periods) and areas of cobbling. A depression and channel cut through its rampart to reach the ditch, and Roman pot lids of Antonine date, as well as fragments of Iron Age pottery and hobnails, were recovered from this feature. The ditches were deliberately filled with turf and hawthorn brushwood, probably when the Antonine fort was under construction.

The 'fortlet' is generally interpreted as a construction camp for the Wall (Robertson & Keppie 2001: 93) or a semi-permanent Antonine site housing perhaps the garrison for a nearby (as yet undiscovered) fortlet (also see Croy Hill) (Hanson & Maxwell 1986: 120). No Flavian finds have been found on the Hill.

One further possibility should be noted – that this enclosure, sited on the highest point of the Wall close to the midpoint, could have housed a garrison engaged in

surveying the Wall, with perhaps another garrison housed at the nearby enclosure underneath the fort on Croy Hill, some 3km to the east.



Illustration 214

Bellie, including various claimed locations for the camp and known cropmarks. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Bellie (illus 214)

(Fochabers)

NJ 3551 6103 NJ 36 SE 8

The probable camp at Bellie was first recorded by Macfarlane in his *Geographical Collections* (1726, in Mitchell 1906) and also in Chalmers *Caledonia*, based on information from Colonel Imrie in 1799 (1807: i, 129). On a visit to the area, Crawford reported that nothing was visible on the ground, and, while he voiced some

doubts about the site as a Roman camp, he recorded that the site had been observed from the air in May 1943 by Mr R. F. Jessup. Crawford then placed the camp centred at about NJ 3573 6170, just over 100m south-west of where the 'fosse' of the camp had been placed by the Ordnance Survey (1st edition: Banffshire 1872: sheet i) (Crawford

1949: 122–5, fig 321; see illus 214). The area was subject to excavations by St Joseph in 1967, who confirmed a probable Roman camp with a centre at about NJ 355 613 (1969: 113), some 400m south of where the camp had been placed by Crawford. Fragments of a glass bottle from about 1770–80 were found in the top of the ditch (but below the plough soil), suggesting that it had lain open until the later part of the 18th century, which broadly fitted in with the antiquarian accounts. Keillar reported to the Ordnance Survey archaeology branch that the ditch St Joseph excavated ran south from NJ 3555 6113 (this grid reference is located just in Lion's Den Wood) and that three of St Joseph's trenches across it were still open at the time of his visit (OS Recorder 1971). However, the illustrations in the St Joseph Collection in the RCAHMS (DC 37252; Notebook 4) indicate that the ditch he excavated was farther north, and ran north-east to south-west from NJ 3569 6134 to NJ 3548 6112. The two trenches that he illustrates (RCAHMS DC 37253; St Joseph Collection: Notebook 4) do not demonstrate a particularly V-shaped profile, although he recorded that the ditch was about 2.1m in width and over 0.9m in depth (St Joseph 1969: 113). In 1984, Jones & Keillar recorded the well-rounded northern corner of a camp at NJ 355 611, together with a long linear cropmark running in the same field (1984: 12). The note that appeared in the 'Roman Britain in 1985' section of *Britannia* recorded this slightly to the north at NJ 355 612 (Frere 1986: 370). It is presumably the cropmark of this possible camp recorded by Jones & Keillar that was subject to further excavations by Daniels in 1986, who intersected the ditch in five places. The only published report of these excavations indicates that the location of the camp was at NJ 354 610 and that the ditch was shallow and about 2m wide (Keillar 1987: 11). In addition, the summary in *Britannia* noted that the ditch traced by St Joseph in 1967 probably related to an 18th-century road (Frere 1986: 370). It is worth noting that St Joseph did question the absolute Roman date of the site in his summary article (St Joseph 1969: 113).

The area lies to the north of Fochabers, just north of the old Church of Bellie, on the east side of the River Spey only 4km from the Moray coast. The area is now under arable cultivation, and it lies on a fairly flat terrace, which slopes gently up to Whiteash Hill to the south-east. Immediately to the north is an area known as Roman Camp Wood and Romancamp Gate. The old *Statistical*

Account notes that the camp in Bellie parish is traditionally known as the Danish camp, possibly connected with a battle between the Scots and the Danes (Sinclair 1795a: xiv, 271).

The air photographs taken by Jones were not available, but a study of photographs taken by Cambridge University in the 1970s–80s and Aberdeenshire Archaeology Service (AAS) in 1982 reveals a linear cropmark to the east of Bellie Church, running south-west to north-east for about 160m and turning in a rounded angle to the south-east, before running into the Lion's Den plantation. This provisionally has the characteristics of a Roman camp. It lies at about NJ 3551 6103 and is possibly the same feature as that recorded by Jones & Keillar. It is also close to where Keillar noted St Joseph's trenches lay, although the drawings in the RCAHMS demonstrate that this was incorrect, and, indeed, St Joseph's article suggested that he was expecting the cropmark that he excavated to represent part of the east side of an enclosure, not the north-west side of an enclosure, close to the north corner (1969: 113). The linear cropmark that St Joseph excavated is also clearly visible on the air photographs, but demonstrates no obvious Roman characteristics, and his section drawings do not present unequivocal evidence for a Roman origin. Therefore, Jones' suggestion that the cropmark excavated by St Joseph represents the remains of an 18th-century road seems more likely (Frere 1986: 370). Certainly a Roman date cannot be comfortably given to this feature. The lack of information on Daniels' excavations does not assist in the interpretation of that feature as a camp, although this may be the same feature visible on the Cambridge and AAS air photographs noted above. The discovery of an interior pavement of flat sandstones in the interior of the camp during Daniels' excavations raises questions about the temporary camp classification of the feature excavated (Keillar 1987: 11).

The level of confusion surrounding this site suggests that it should be regarded as a probable camp, rather than given the accolade of (currently) the most northerly camp known in the Roman Empire. Leslie notes the possibility that there may be two separate sites here (1995: 317), and there do seem to be two distinct locations, firstly where Crawford and the OS recorded the camp, and secondly the site visible on air photographs (which may have been that excavated by Daniels). Whether any or all of these features are Roman in date awaits further investigation.

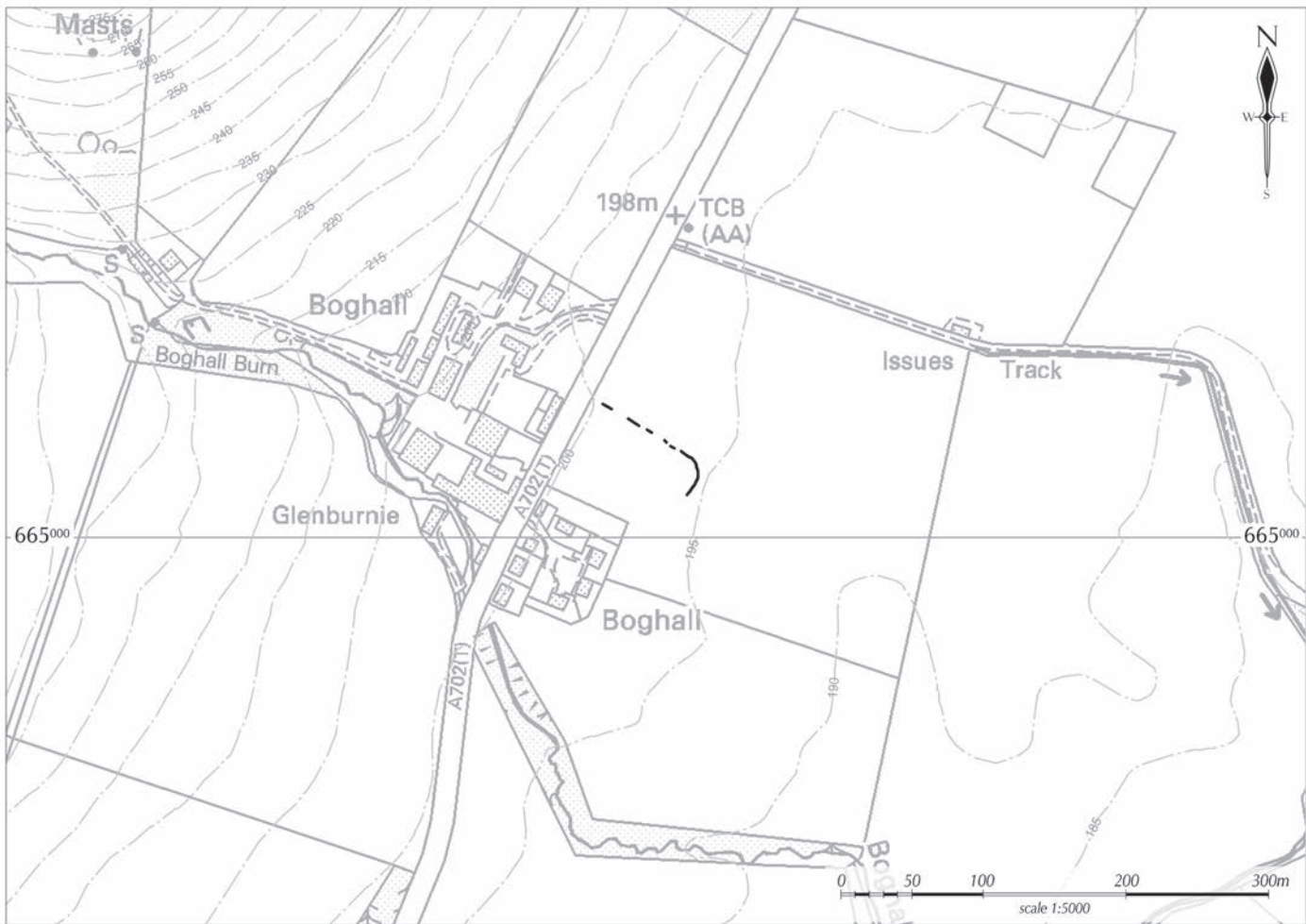


Illustration 215

Boghall. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Boghall (illus 215)

NT 2455 6505 NT 26 NW 51

This probable camp lies at Boghall farm on level ground immediately south-east of the A702. Discovered in 1989 by RCAHMS from the air, the remains consist of a linear cropmark, some 84m in length, running north-west to

south-east, with a rounded corner and continuing for 20m to the south-west. (Differential crop growth in the field is the reason for such a small segment of this side having been recorded.)

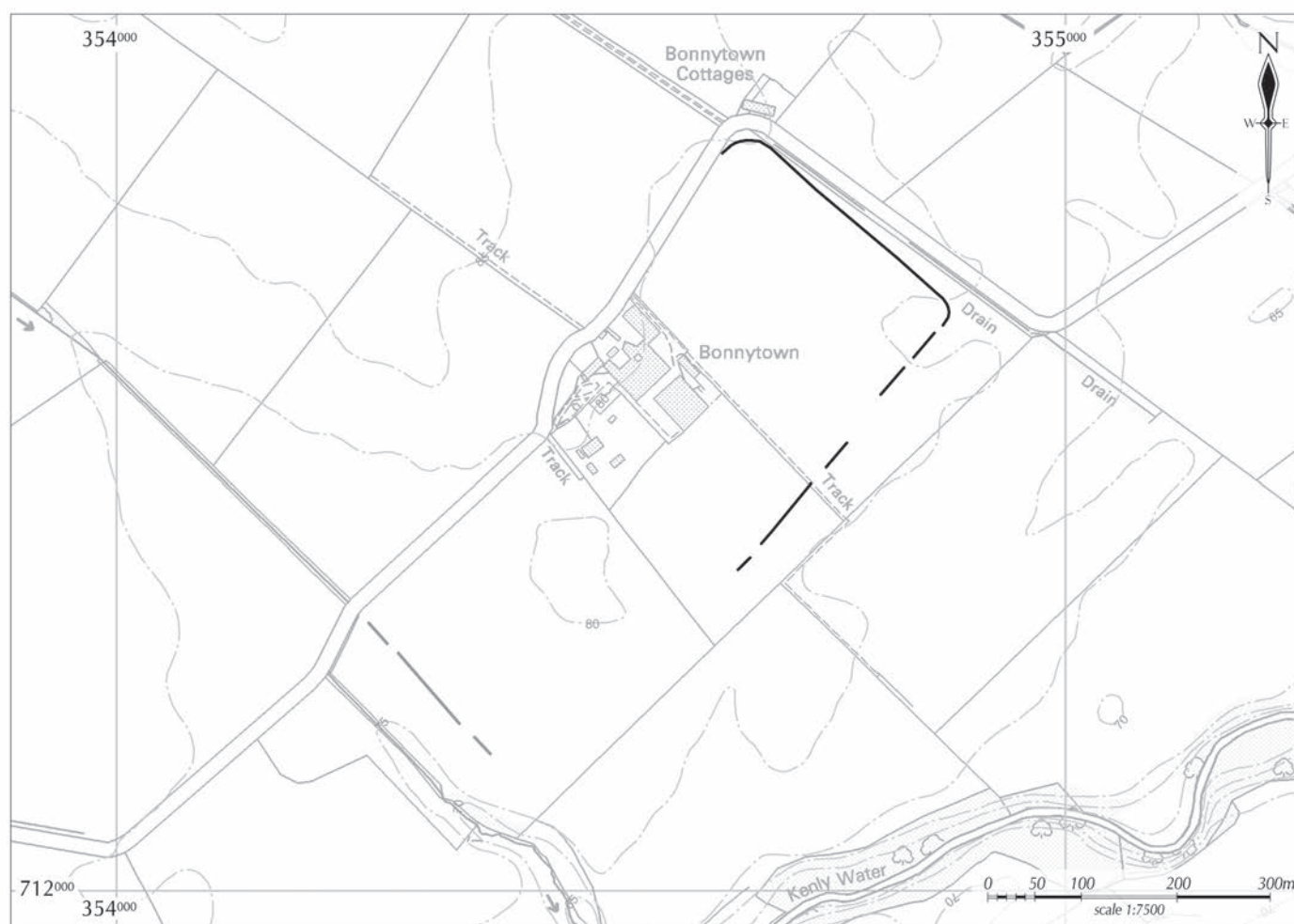


Illustration 216

Bonnytown. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Bonnytown (illus 216)

NO 5465 1260 NO 51 SW 14

The alleged camp at Bonnytown was recorded from the air by St Joseph in 1962 (St Joseph 1965: 82), lying on level ground only 2.5km from the Fife coast at St Andrews Bay, and some 18km east of the nearest confirmed camp at **Edenwood** near Cupar.

There are numerous linear cropmarks in and around the camp, many of which are probably field drains, but this confuses the cropmark evidence. What appears to be the north-east side (some 293m in length) together with the north and east corners is detectable, but no entrance gap is obvious. Some 350m of the south-east side is also visible, with further linear cropmarks perhaps suggesting up to 590m might be visible. St Joseph records a rounded south angle in the field just to the south of Bonnytown farm (RCAHMS DC 37264), but this is not clearly visible

as such on the air photographs. There is a linear cropmark running in the field, close to its boundary, some 670m from the north-east side.

St Joseph conducted excavations on the south-east side and north angle in 1966, recording that the ditch on the south-east side was V-shaped, 1m wide and 0.45m deep, with a drain inserted exactly at the base of the ditch. Elsewhere on this side, the ditch was up to 0.9m deep. At the north angle, the ditch was also 1m wide and up to 0.7m deep (RCAHMS St Joseph Collection: Notebook 4). The Ordnance Survey recorded that excavations carried out in 1967 by the Dundee University Archaeology Group proved the existence of the Roman camp (OS Recorder 1968), but these may be the same as St Joseph's excavations of 1966. (His excavations were

carried out with G Rickman, D K Faulks, J J Robertson & D Dunn, and these may be members of the Dundee University Archaeology Group – no further information is available.)

Maxwell has questioned this site as a camp (pers comm) and indeed the aerial photographic evidence is not wholly convincing. Further work may elucidate the cropmark evidence.

Cleghorn II (illus 104)

NS 9038 4550 NS 94 NW 12

Some 450m WSW of the camp at **Cleghorn** (I), two sides of a probable second camp have been recorded through cropmarks from the air (by Cambridge University in 1977; RCAHMS 1978a: 159). It is located at the presumed crossing point of the Mouse Water adjacent to the Roman

road from **Castledykes** to Bothwellhaugh. Some 300m of the north-east side together with a rounded north corner angle and 215m of the south-west side have been recorded.

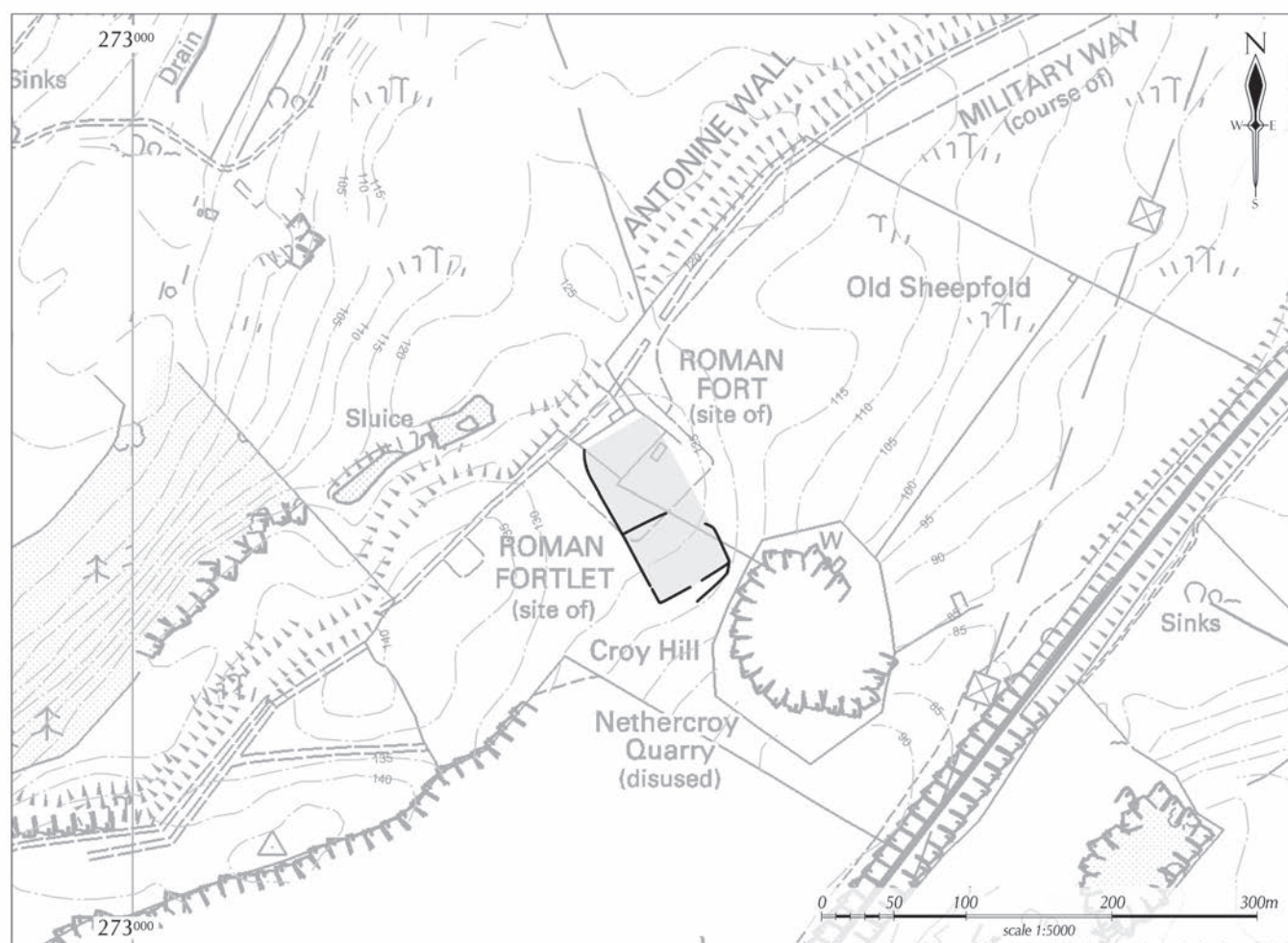


Illustration 217

Croy Hill 'structure' and the Roman fort, fortlet and the Antonine Wall. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Croy Hill 'structure' (illus 217)

NS 7335 7652 NS 77 NW 10

The Roman fort on Croy Hill was first discovered during excavations by Macdonald in 1920, following earlier antiquarian reports. In 1925, Macdonald noted the remains of a ditch that could have belonged to an earlier 'lay out' of the fort (Macdonald 1925: 289). Further excavations in 1931 clarified the plan of the Antonine fort, and discovered an 'older fort' lying beneath it, at that stage presumed to be one of the Agricolaean *praesidia* on the isthmus (Macdonald 1934: 267–8).

This older 'fort' or enclosure measures some 67m from north-west to south-east by almost 49m, enclosing an area of 0.32ha (0.8 acres). An annexe is located to the south-east, which approximately doubles the total area enclosed from 0.32ha to about 0.6ha, and there is an additional small stretch of ditch leading from the south-east corner of

the annexe, interpreted as being for drainage purposes by Macdonald (1932: 265–6). (Illus 217 is based on drawings in Hanson 1979.)

Hanson undertook further excavations on the underlying enclosure in 1975 and 1977. His excavations demonstrated that it was Antonine in date on the basis of pottery found in the ditch, and indeed no evidence for Flavian occupation was found (Goodburn 1976: 302). A nearby fortlet, some 100m to the west, was discovered during the 1977 excavations, leading Hanson to suggest that the enclosure underneath the fort was the construction camp for the fortlet (Goodburn 1978: 413–15), while noting that it was considerably smaller than any other presumed construction camp on the Wall (Hanson & Keppie 1978: 93). The ditch of this presumed

construction camp varied in width from 1m to 2.3m and in depth from 0.3m to 1m. It had apparently lain open for some time before being deliberately backfilled with clay and large stones, attested to where the fort rampart overlay the ditch (Hanson 1977; Hanson 1979: 19). The small 'drainage' ditch noted by Macdonald leading south-east from the annexe was recorded as merging with the ditch dug for a Roman road taking traffic around the fort, thereby adding weight to the suggestion of an Antonine date (Hanson 1979: 19).

Since the time of its discovery by Macdonald, the enclosure on Croy Hill has been associated with the

nearby 'fortlet' on Bar Hill (Macdonald 1934: 273) and potentially with other 'Agricolan *praesidia*' on the Forth–Clyde isthmus. The dating of the enclosure on Croy Hill to the Antonine period has led its neighbour under the fort at **Bar Hill** to also be associated with the 2nd century AD, prior to the Antonine Wall forts that subsequently occupied both positions (Hanson 1980: 60).

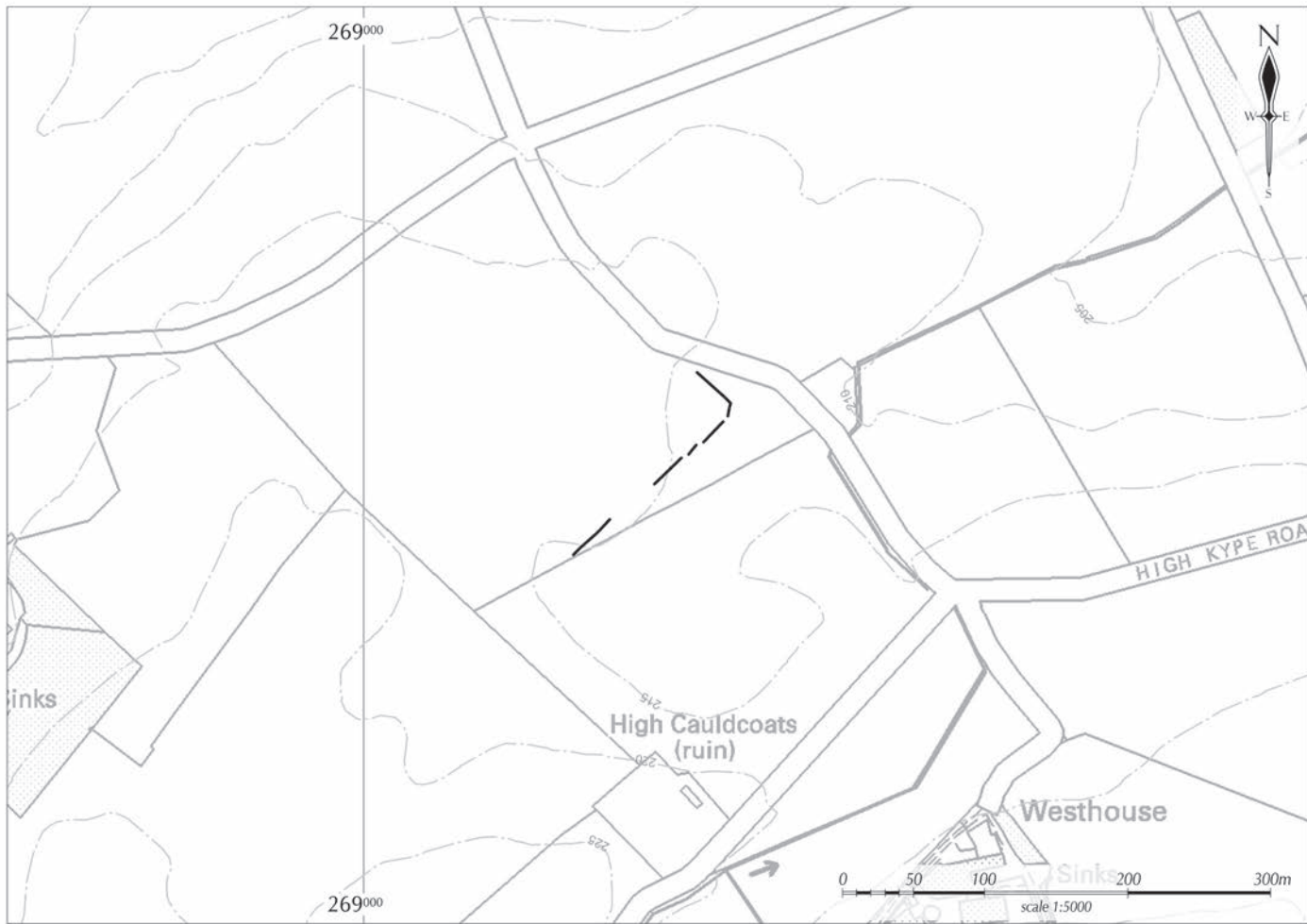
However, as with Bar Hill, this enclosure is located close to the highest point on Croy Hill, with excellent views to the east along the line of the Antonine Wall and west towards Bar Hill. The possibility exists that both could have housed garrisons engaged in surveying the Wall.

Fourmerkland II (illus 130)

NX 9128 8046 NX 98 SW 4

St Joseph recorded a small enclosure close to the camp at **Fourmerkland** (I) which he suggested might be a second camp (1951a: 60). This was dismissed as a probable modern agricultural feature (information from RCAHMS), but the cropmarks are suggestive of a further camp, measuring

55m from west to east by at least 60m. Gaps in the cropmark on the south and east side are accompanied by the remains of two short cropmarks, possibly *tituli*. Further work and air photography is required to confirm this as a Roman camp.

*Illustration 218*

High Cauldcoats. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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High Cauldcoats (illus 218)

NS 6925 4144 NS 64 SE 17

At Cauldcoats, close to the line of the Roman road from **Castledykes** to Loudoun Hill, stretches of two sides of a probable marching camp were recorded in 1989 by RCAHMS through cropmarks from the air (Frere 1990:

312). Some 153m of the south-east side is known, along with a probable rounded corner angle and almost 40m of the north-east side.

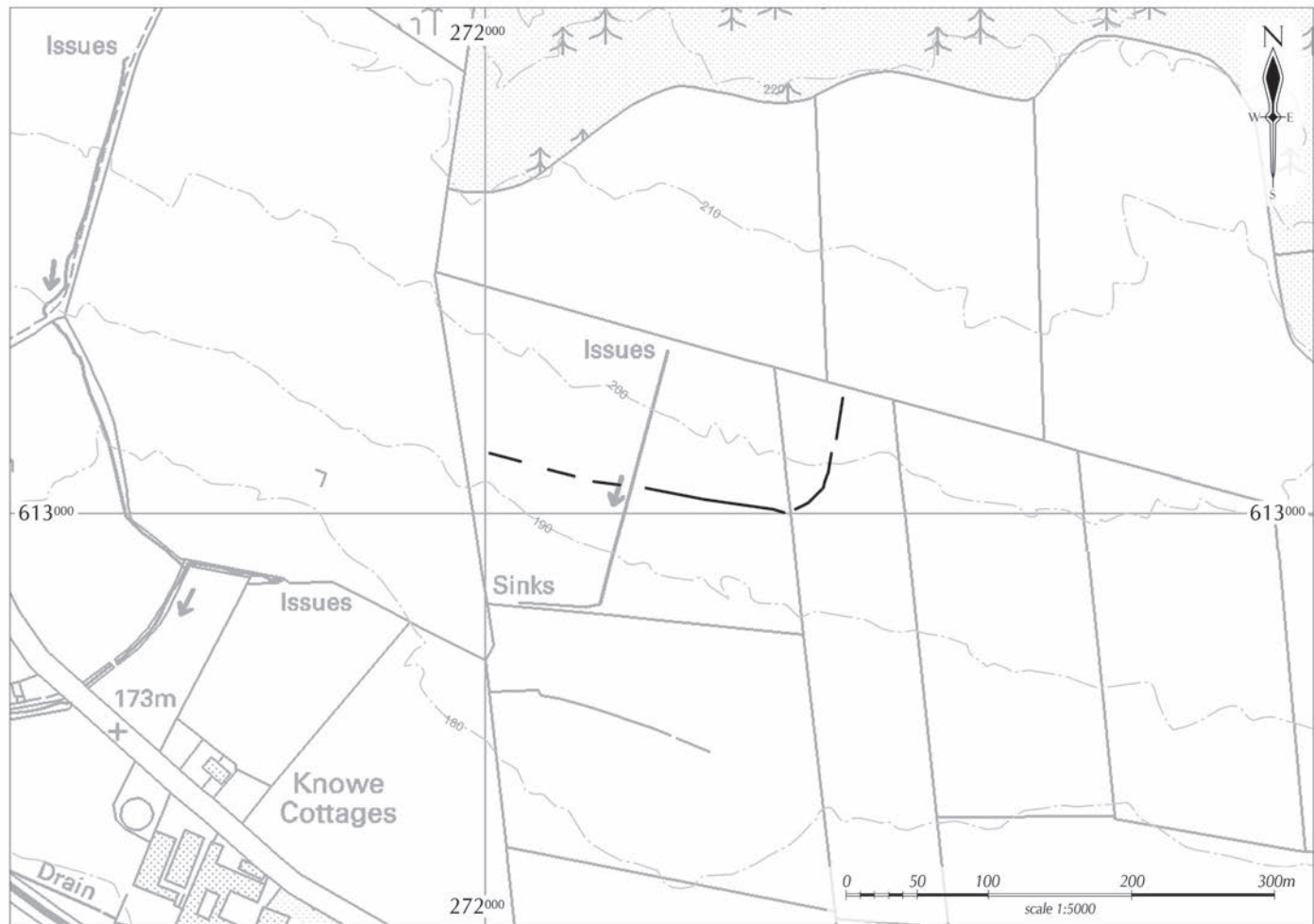


Illustration 219

Knowe Cottages. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Knowe Cottages (illus 219)

(Kirkland; Buttknowe; Kirkconnel)

NS 7214 1310 NS 71 SW 10

This probable camp lies in the upper reaches of the Nith valley, some 6km WNW of the Roman fortlet at Sanquhar. It was first recorded during a study of air photographs taken by the Royal Air Force (Clarke 1953: 118). At least 230m of the SSW side has been recorded as a cropmark,

together with the south corner angle and almost 90m of the ESE side; no gates are known. Excavations in 1952 recorded that the ditch was about 3m wide and up to 0.9m deep (Clarke 1953: 118).

Lochlands, Three Bridges VI (illus 167)

NS 8577 8090 NS 88 SE 22

During excavations in 1993, Bailey recorded a ditch to the east of camp IV, of which at least 21m by 14m is known (Bailey 2000: 473. camp g). His trenches recorded that the ditch was up to 0.8m wide and 0.55m deep. It may have been deliberately backfilled after a small amount of silting. He also recorded a further ditch to the west of the

ditches of camps IV and VI, on an east-to-west alignment. This measured up to 1.2m in width and 0.5m in depth and may also have been deliberately backfilled (Bailey 2000: 474, camp h). This may represent the remains of a further camp or be an annexe to or reduction of an existing camp.

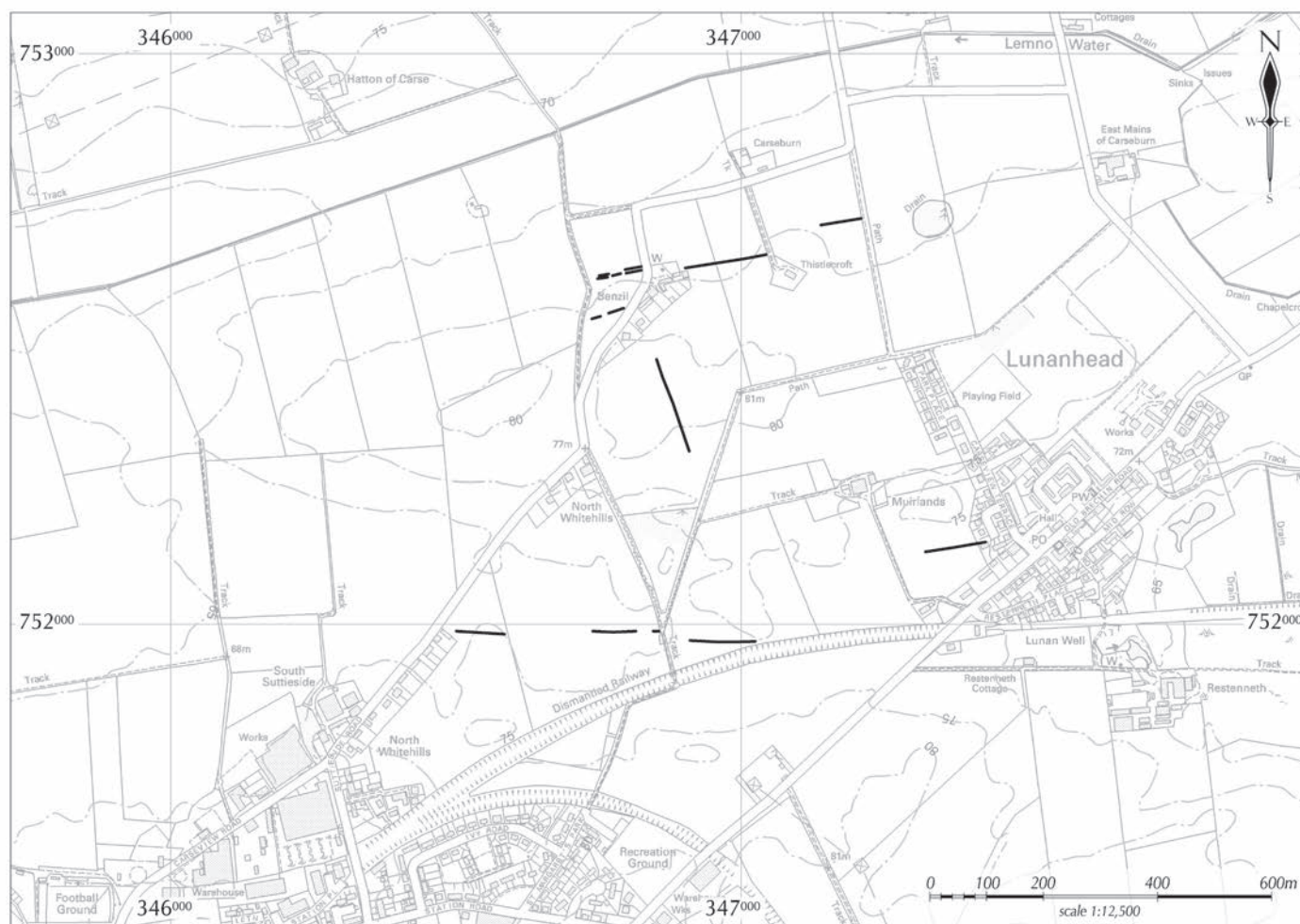


Illustration 220

Lunanhead linear cropmarks. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved. Ordnance Survey Licence number 100020548.

Lunanhead (illus 220)
(Suttieside)

NO 4685 5215 NO 45 SE 11

The camp at Lunanhead, north of Forfar, was depicted on Ainslie's *Map of the County of Forfar or Shire of Angus*, published in 1794. On this map, a long rectangle running from west to east is shown, labelled 'Roman Camp', much of which is lying in a wood.

Jamieson referred to the site as a 'Pictish Camp', noting that only part of it could be seen, the majority being covered by the wood (1822: 23). Crawford recorded that parts of the north and south sides of the 'Pict's Camp' could be seen (1949: 137–8). The Ordnance Survey noted a low bank on the south side in 1958, but commented that this was probably an old field boundary (OS Recorder 1958). St Joseph recorded parts of the

north side and the north-west corner from the air in 1969 (1973: 224).

The site lies on gently undulating land, with the dismantled railway line that ran from Forfar to Arbroath cutting through its southern part, and various roads, including the Old Brechin Road (the B9134) also crossing.

The exact position of the alleged camp is unclear. Linear cropmarks are visible for some 530m in the south, possibly indicating that side of the camp. If Ainslie's map is correct, then the camp would measure up to 1,400m from west to east by 620m transversely, enclosing 86.8ha (214 acres), but this would make it by far the largest camp in Scotland. It is highly likely that the stylisation

of Ainslie's map has led to a distortion. Nevertheless, some of the linear cropmarks recorded at Lunanhead correspond with the location of the north and south sides of the camp as depicted by Ainslie, although the actual camp perimeter cannot currently be established with any certainty.

St Joseph apparently recorded parts of the north side and the north-west corner from the air in 1969, although the photographs could not be identified, and he placed trenches on the north side in 1971 and 1972, noting a V-shaped ditch, 0.9m in depth and 1.4–1.7m in width (St Joseph 1973: 224; RCAHMS St Joseph Collection: Notebook 6).

Millburn Tower (illus 139)

(Gogar)

NT 1735 7184 NT 17 SE 23

Recorded in 1980 alongside its neighbour at Gogar Green (Maxwell & Wilson 1987: 38–9), the possible camp at Millburn Tower lies just outside the Edinburgh City Bypass on the west side of the city. Over 200m of the NNW side have been recorded, together with a rounded east angle and hints of the ENE side.

A recent report reappraising the cropmark archaeological evidence in this area suggested that this

camp was a fortuitous arrangement of medieval or later cultivation remains and field boundaries (Headland Archaeology 2002). But excavations by Maxwell in 1984 revealed a slight ditch (similar to that of Gogar Green), measuring just over 1m wide and 0.5m deep (Maxwell & Wilson 1987: 39). Maxwell is content that his excavations did reveal the likely remains of a camp (Maxwell pers comm).

Milton II (not illustrated)

(Tassiesholm)

NT 0925 0142 NT 00 SE 22

A possible camp at Milton was recorded under the east *intervallum* street of the Roman fort in 1950 during excavations by Clarke (1951: 199). Little is known of its

extent, but the ditch was recorded as measuring some 2.1m wide and as being gravel-filled without silting.

POSSIBLE ROMAN CAMPS**Arduthy**

(Fetteresso Glebe)

NO 8681 8651 NO 88 NE 7

A possible camp at Arduthy was recorded in Camden's *Britannia* (1722), and again by Barclay (1792: 566), but was

dismissed by Crawford (1949: 104–5). The site now lies under a housing estate.

Cairnhall

(Kintore 2)

NJ 784 185 NJ 71 NE 135

Air photography by Cambridge University in 1976 and 1977 recorded a linear cropmark, some 290m in length, west of Cairnhall farm, about 1km north of the camp at **Kintore**. Aberdeenshire Council took further air photographs in 1983 and 1984. There is at least one break in the cropmark where there is a slight change of alignment. St Joseph excavated the ditch in 1976,

recording that it was V-shaped, measuring some 1.2m in width and up to 0.8m in depth (St Joseph 1977: 140). He used the evidence from these excavations to suggest that the cropmark may represent part of a possible camp of some 30 acres in size (1977: 140). However, this evidence is not conclusive and the site cannot yet be confirmed as a temporary camp.

Carberry

NT 284 947 NT 29 SE 28

'The Romans are said to have had a station at Carberry farm, where, it is reported, there was once a Roman camp, but no trace of it remains' (NSA 1845: ix Fife,

134). There is no further evidence to support this comment.

Cardean II

NO 301 463 NO 24 NE 15

In 1969, St Joseph noted a possible second camp lying within the eastern part of the camp at Cardean (1973: 224). Excavations on the ditch of this camp recorded that it measured some 2.4m in width and 1m in depth, and was deliberately filled in with clay and sandy subsoil. He recorded that it measured at least 310m from south-west to north-east, and that the two linear cropmarks were 430m apart (1973: 224). This therefore would mean a camp of some 13.3ha (33 acres). The north-west linear cropmark to which St Joseph refers is clearly visible, but those to

the south-east do not have the same regularity of form, and there are numerous linear cropmarks (probably mostly drainage ditches) in this field (see illus 94). St Joseph plotted the plan of the large camp (RCAHMS St Joseph Collection: DC 37284), but did not include the plan of the smaller camp. The second camp was discovered at a time when St Joseph was looking for a series of Flavian 30-acre camps. It is possible that there was an element of wishful thinking in the second camp, and it therefore must remain as a possible site until further evidence is available.

Coupar Angus

(Coupar Angus Abbey)

NO 2240 3980 NO 23 NW 12

Maitland claimed that the earthwork at Coupar Angus Abbey was Roman (1757: i, 199–200) but Crawford felt it delimited the Abbey precincts (1949: 82–5). However, the possibility that the earthwork originated as a Roman camp

cannot be completely discounted. It measured around 370m from NNW to SSE by possibly 350m transversely and may have enclosed some 13ha (32 acres).

Dalginross II (illus 109)

NN 7735 2096 NN 72 SE 21

Two linear cropmarks are visible protruding from the fort, and were first observed in the early 1960s by St Joseph from the air (1965: 81). The two could relate to an earlier

camp or to elements of the fort and its annexe. They lie 172m apart, with some 53m of the south-west side visible and 106m of the north-east.

Dalswinton Bankfoot III (illus 112)

NX 9370 8388 NX 98 SW 65

A linear cropmark, some 140m in length, has been recorded overlapping Dalswinton, Bankfoot II to the south. It has

been interpreted as a Roman camp (information from RCAHMS) but this attribution is not confirmed.

East Haven

(East Scryne)

NO 5876 3667 NO 53 NE 14

A rounded corner and stretches of two adjacent sides, which may be part of a Roman camp, are visible some 700m from the harbour at East Haven. Recorded from the air in 1983 by Maxwell (1990a: 122), some 95m of the ESE side are known together with 45m of the NNE.

The cropmarks are blurred by a morass of linear markings (drainage ditches and rig), and the area is littered with cropmark remains from the prehistoric to the medieval and modern periods.

Fordoun

NO 7320 7700 NO 77 NW 9

Melville observed the moat at Fordoun, claiming that it was a 'Roman Castellum' (Macdonald 1939: 249), and the Rev. Alexander Leslie, writer of the old *Statistical Account*, described the area as a Roman camp (Sinclair 1792: iv, 498). Knox drew a camp with six gates protected by *tituli* on his *Map of the Basin of Tay* (1850), and, later, Crawford, drawing on the antiquarian accounts, was keen on the area

as a possible site for a camp (1949: 103–4). Recent air photographs reveal a number of linear cropmarks in the area, but none gives any clear suggestion of Roman origin. However, the Luther Water has clearly been canalised since Knox's map, and just west of Fordoun House there is a rounded corner with straight sides, resembling a camp, although its classification cannot currently be proven.

Glenlochar VI (illus 137)

NX 7358 6489 NX 76 SW 1

Recorded in 1949 by St Joseph from the air (1958: 89), this cropmark enclosure, lying inside **Glenlochar I**, measures about 80m from WNW to ESE by 70m and enclosed 0.67ha (1.4 acres). A square enclosure, measuring some

43m by 40m is tucked into its south-east corner. Despite a superficial resemblance to camps such as **Crawford III** and IV and **Ellisland I** and **II**, the enclosure may well not be Roman in date.

Grahamston Cottages

(Arbirlot)

NO 6003 3994 NO 63 NW 2

A rounded corner and stretches of two adjacent sides have been recorded from the air just to the west of Grahamston Cottages, west of Arbroath. Some 90m of the north side is known, with a possible entrance gap, and 80m of the

west side. The cropmark has some of the characteristics of a Roman camp, but more evidence is needed before it can be interpreted as such.

Hiltonshill

NT 60 29 NT 62 NW 2

The *Statistical Account* mentions that vestiges of a Roman camp could be seen in the north corner of Ancrum Parish, on 'the top and declivity of the hill eastward,

on the border of Maxton parish' (Sinclair 1795a: xiv, 294n). This description would place it very close to Dere Street.

Inveresk III

(Lewisvale)

NT 3485 7208 NT 37 SW 870

During excavations at Inveresk in 2001, a possible temporary camp ditch was recorded, running east to west, measuring 1m in depth and containing Roman coarseware pottery. Other ditches were located which ran north to south, also containing Roman pottery in the upper levels (Suddaby 2003). Given the number of field

system ditches in the vicinity (see illus 150) also containing Roman pottery (see Cook 2005) and the presence of a triple-ditched structure, the possibility that this ditch may represent some other form of Roman activity should also be considered. It could not be identified from air photographs.

Langton

(Langtoun; Falkirk)

NS 89 79 NS 87 NE 27

Sibbald noted the presence of a 'great fort' at Langton, near Falkirk (1707: 30). The fort has never been found,

and it may be that the remains recorded were those of a temporary camp (Hanson & Maxwell 1986: 120).

Linlithgow Palace

NT 0015 7733 NT 07 NW 85

A rounded corner angle and stretches of two adjacent sides were recorded in 1989 by RCAHMS from the air (Frere 1990: 312). These appear as parch marks south-west of Linlithgow Palace. It has been proposed that it is

part of a Roman structure (Frere 1990: 312) but further evidence is required before it can be confirmed as being Roman in date, and before it can be ascertained whether the structure was temporary or permanent.

Maxton

NT 6148 3047 NT 63 SW 28

The rectilinear enclosure at Maxton has only been photographed as a cropmark in a single year (1964 – St Joseph 1965: 78), and the corners of the site are a little too regular for it to be confidently proposed as Roman in date. It measures 261m from north-west to south-east

by at least 130m, but the north-west side has been eroded by the River Tweed. The recorded sides are very straight, and there is no sign of a break in the south-east side for an entrance.

Millmount

NT 5605 3465 NT 53 SE 33

The enclosure at Millmount lies less than 1km to the west of the Roman fort and camps at **Newstead**. First recorded in 1960 by St Joseph from the air (1961: 121), some 150m of a north side, a rounded corner angle and 50m of the east have been visible through cropmarks.

While it is not definitely a Roman camp, its proximity to **Newstead** increases the probability that it is. A second enclosure within the site does not have the appearance of a Roman structure.

Murder Loch

NY 0311 8538 NY 08 NW 8

The Roman fortlet at Murder Loch was discovered in 1974 by the Ordnance Survey from air photographs. It is sited on the summit of a knoll just south of the Water of Ae, close to the line of the Roman road from Annandale to Nithsdale. Further photographs taken in 1984 revealed

that the fortlet was surrounded by a thin cropmark ditch (Maxwell & Wilson 1987: 24–5), which measures 102m from ENE to WSW by 85m and enclosed 0.84ha (2.1 acres). This ditch could represent the remains of a camp, or could relate to outworks for the fortlet.

Nether Braco (illus 77)

(Ardoch)

NN 8325 1023 NN 81 SW 10

On a level terrace west of the fort and camps at **Ardoch** and across the River Knaik, a linear cropmark and rounded corner was observed from the air by St Joseph in 1966.

Some 70m of the north side has been recorded, together with 15m of the west. Not enough has been visible to identify the cropmark as a Roman camp.

Newstead (illus 183)

(Great Camps)

*Newstead VI: NT 5760 3405 Newstead VII: NT 5730 3435
NT 53 SE 20.5 NT 53 SE 20.5*

A further two possible camps are visible in the ‘Great Camps’ area to the east of the Roman fort at **Newstead**, intersecting the known camps (see Newstead I–III). A 225m stretch of cropmark with a rounded corner, which intersects with camp I and the camps at **Ravenswood**,

could represent part of an additional camp at Newstead (VI). Another cropmark, some 175m in length with a rounded corner, which intersects with the north-west side of camp I, may represent part of a further camp (VII), or relate to the eastern annexes of the fort.

Portrack House (illus 112)

NX 9412 8317 NX 98 SW 56

This possible camp lies on level ground on the south side of the River Nith, across from the Roman forts and camps at **Dalswinton**. First recorded in 1983 by RCAHMS as a cropmark from the air, the remains consist of 120m

of the south-eastern side and at least 60m of the south-west. The corner angle between the two is unclear and a further (non-Roman) rectilinear enclosure lies within this enclosure.

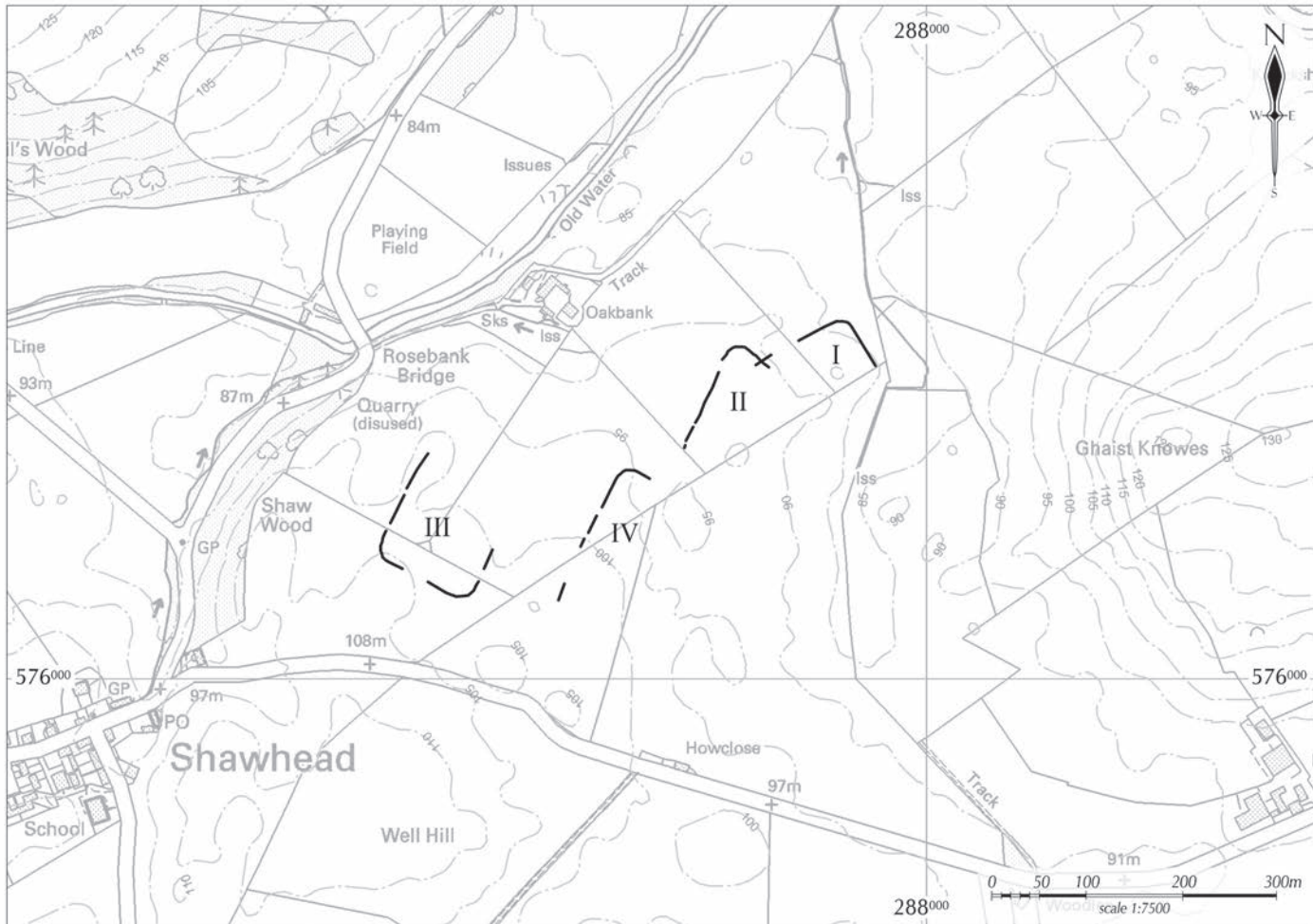


Illustration 221

Shawhead I–IV. Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright 2010. All rights reserved.
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Shawhead (illus 221)

Shawhead I: NX 8790 7633
NX 87 NE 8

Shawhead II: NX 8780 7628
NX 87 NE 8

Shawhead III: NX 8748 7613
NX 87 NE 8

Shawhead IV: NX 8768 7615
NX 87 NE 8

St Joseph recorded the remains of two possible Roman camps at Shawhead (1961: 122) and as many as four cropmark enclosures are now known here, all recorded on air photographs taken by Cambridge University in the 1950s and 1960s. The recent reinterpretation of an earthwork at nearby Lochrutton Loch as a probable Roman fortlet (Hunter 2005: 402) reinforces the suggestion that this area was a routeway for the Roman army travelling in the direction of Glenlochar.

Only a rounded corner and stretches of two adjacent sides are known of camp I: 100m of the north-west side

and 60m of the north-east. A similar amount is recorded of camp II, which comprises just over 120m of the WNW side, the north corner angle and 40m of the north-east side. A little more is recorded of camp III, where two rounded corners and stretches of three adjacent sides are known. This suggests that it measured 108m from WNW to ESE by at least 120m transversely and enclosed at least 1.3ha (3.2 acres). No entrances are known although a large gap is visible in the cropmark in the SSW side. Camp IV again comprises a rounded corner and stretches of two adjacent sides: some 160m of the WNW side and 30m of the NNE.

Whether or not all four cropmarks at Shawhead represent the remains of Roman camps is uncertain,

but the nature of the cropmark evidence is suggestive of several small camps here.

South Blainslie

NT 5456 4275 NT 54 SW 10

This site was discovered in 1986 by RCAHMS as a cropmark and published in *Britannia* as a 'rectilinear enclosure' (Frere 1987: 315); it was classified as a Roman

temporary camp by the RCAHMS. It measures 65m from ENE to WSW by at least 28m; a road runs along its south side. It is similar in form to a fortlet.

Tower, Torrance

NS 613 741 NS 67 SW 25

Gordon recorded a 'large square encampment' close to Tower, west of Torrance, in the 18th century (1726: 21). The fact that he noted its similarity to Burnswark led RCAHMS to interpret his site as the probable remains of a temporary camp (RCAHMS 1963: 107). Gordon recorded that the rampart was 11ft (about 3.3m) wide and that the ditch was wider, but no dimensions for this were given. He recorded it measuring about 1500ft (about 450m), and given that he stated that it was square, this

would suggest that it enclosed over 20ha (50 acres). The site at Tower is about 1.5km north of the Roman fort of Cadder on the Antonine Wall, separated by the River Kelvin. It may not relate to the Wall given its location north of the river, and its square form might suggest a 1st-century date for the camp (see above, section 7c & Chapter 10). It may represent the pause on the isthmus recorded by Tacitus (*Agricola* 23), or an unknown route possibly heading up to the Flavian fort at Drumquhassle.

Waterside Mains

NX 8699 9697 NX 89 NE 34

This possible camp was recorded in 1977 by RCAHMS from the air (Goodburn 1978: 411) on level ground on the east side of the River Nith and about 1km south of the camp at **Carronbridge**. It measures 106m from

NNW to SSE by at least 32m, although the ENE side has not been recorded. Although originally interpreted as a Roman camp, the corners are very angular and the cropmark evidence is not conclusive.

West Newton

NS 692 430 NS 64 SE 7

The possible camp at West Newton lies on fairly level ground on the north side of the Avon Water, about 1.5km north of the probable camp at **High Cauldcoats** and the Roman road from **Castledykes** to Loudoun Hill. It comprises a series of linear cropmarks, first recorded in 1984, the north-east side of which change alignment at the point where a minor road passes through the site, and part of the south-west side may continue in use as a drain.

These indicate a camp of about 385m from north-east to south-west by at least 320m transversely, enclosing an area of at least 12.3ha (just over 30 acres). Some 200m north-east of this enclosure lie further linear cropmarks, on a similar alignment to the north-east side, with traces of what may be a *titulus*. If these cropmarks do indeed represent those of a temporary camp, then it may have had more than one phase.

Wester Carmuir II (Lochlands: illus 167)

NS 8503 8048 NS 88 SE 243

West of the camp at Wester Carmuir, in the Lochlands complex just north of the Antonine Wall, lies a cropmark rounded corner and part of two sides, suggesting that there

may be another camp here. Some 55m of the north-west side are known and at least 25m of the north-east.

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