

WHITLEY CASTLE, TYNEDALE, NORTHUMBERLAND AN ARCHAEOLOGICAL INVESTIGATION OF THE ROMAN FORT AND ITS SETTING

Dave Went and Stewart Ainsworth



**WHITLEY CASTLE
TYNEDALE, NORTHUMBERLAND**

**An archaeological investigation of the Roman fort
and its setting**

Dave Went and Stewart Ainsworth

NGR: NY 6949 4868

© English Heritage

ISSN 1749-8775

The Research Department Report Series incorporates reports from all the specialist teams within the English Heritage Research Department: Archaeological Science; Archaeological Archives; Historic Interiors Research and Conservation; Archaeological Projects; Aerial Survey and Investigation; Archaeological Survey and Investigation; Architectural Investigation; Imaging, Graphics and Survey, and the Survey of London. It replaces the former Centre for Archaeology Reports Series, the Archaeological Investigation Report Series and the Architectural Investigation Report Series.

Many of these are interim reports which make available the results of specialist investigations in advance of full publication. They are not usually subject to external refereeing, and their conclusions may sometimes have to be modified in the light of information not available at the time of the investigation. Where no final project report is available, readers are advised to consult the author before citing these reports in any publication. Opinions expressed in Research Department reports are those of the author(s) and are not necessarily those of English Heritage.

Requests for further hard copies, after the initial print run, can be made by emailing:

Res.reports@english-heritage.org.uk

or by writing to:

English Heritage, Fort Cumberland, Fort Cumberland Road, Eastney, Portsmouth PO4 9LD

Please note that a charge will be made to cover printing and postage.



Frontispiece. Surveying the south-western defences in January 2008. The view is from the south, looking northwards toward the fort's western tower and beyond, to the Tyne Gap and the Borders

SUMMARY

Between November 2007 and July 2008 English Heritage's Archaeological Survey and Investigation team completed a detailed landscape survey of Whitley Castle in Northumberland: a unique, lozenge-shaped Roman fort on a prominent knoll overlooking the South Tyne valley about 3km north of Alston. The fort, perhaps the *Epiacum* of Ptolemy's *Geography*, stands on the Maiden Way about half-way between *Magna* on Hadrian's Wall and *Bravoniacum* beyond Stainmore. It is notable for an extensive array of outer defences - four lines of banks and ditches to the north and east, and seven to the south-west - and for an exceptional degree of preservation. Analytical earthwork survey, combined with geophysical survey undertaken by Durham University between January and May 2009, has considerably advanced our understanding of the fort and its surroundings. Whitley Castle, the highest stone-built fort in Britain, was almost certainly positioned to control the production and shipment of lead and silver from the Alston ore-fields. Its curious shape, suited to the limitations and advantages of a natural knoll, enabled, in a slanted fashion, the accommodation of six barracks to the rear of the *principia* and four to the front, within an area of barely 1.25ha. Extra-mural settlement has been recorded to the west and north of the fort, and a swathe of ground to the south has been tentatively interpreted as a parade ground. Post-Roman activity is evident from the medieval cultivation patterns and minor settlement remains which override the defences, and in traces of two bastle-like houses and an 18th-century farmhouse, Castle Nook Farm, located within the fort itself. By this time the remains of the fort had come to be known as Whitley Castle, having acquired the name from the surrounding Manor of Whitlaw.

CONTRIBUTORS

The field survey was carried out by Stewart Ainsworth and Dave Went of English Heritage's Archaeological Survey and Investigation team, with assistance from Trevor Pearson, Head of Technical Survey and Graphics. The archaeological background and historical sources were researched by the principal author, Dave Went. The text was edited by Al Oswald. Earthwork plans and other illustrations were drawn by Philip Sinton (Figures 1-3, 18, 19, 23, 25 and 43) Trevor Pearson (Figure 34) and Dave Went (Figures 21, 26 and 42).

ACKNOWLEDGEMENTS

First and foremost, the authors would like to express their gratitude to John and Elaine Edgar of Castle Nook Farm, for allowing access to their property and for their hospitality throughout the project. We would also like to thank Alastair Robertson, local historian and author, for sharing his knowledge of the site and the locality, and for his permission to reproduce the results of the geophysical surveys undertaken in 2003 and 2006. Thanks are due to Paul Frodsham, Historic Environment Advisor for the North Pennines AONB Partnership, for administering the main geophysical survey contract in 2009, and for other assistance and advice. We are also pleased to acknowledge Natural England's contribution in support of the 2009 resistivity survey which was arranged by their regional archaeologist, Tom Gledhill, under the terms of a Higher Level Stewardship Scheme. Duncan Hale and the team from Durham University are to be congratulated for the quality of the geophysical surveys cited in this report, which were carried out to suit the authors' timetable in extremely challenging winter conditions.

The authors gratefully acknowledge permission from the Cumberland and Westmorland Antiquarian and Archaeological Society, acting on behalf of the original authors, to reproduce

Figures 11 & 24 in this report. Other copyright limitations and relevant permissions are cited alongside the individual images.

ARCHIVE LOCATION

The site archive and copies of this report have been deposited in the English Heritage archive and library at the National Monuments Record Centre (NMRC), Kemble Drive, Swindon SN2 2GZ (ref NY 64 NE 1). Copies of this report have also been deposited with the Northumberland Historic Environment Record (County Hall, Morpeth, NE61 2EF) and the British Library.

DATE OF SURVEY

Field survey: November 2007 – July 2008

Geophysical survey: January-May 2009

CONTACT DETAILS

Dave Went Tel. 01904 601927. Email: dave.went@english-heritage.org.uk

Stewart Ainsworth Tel. 01904 601936. Email: stewart.ainsworth@english-heritage.org.uk

English Heritage, 37 Tanner Row, York, YO1 6WP

CONTENTS

1. INTRODUCTION	1
2. GEOLOGY, TOPOGRAPHY AND CURRENT LAND-USE	5
3. PREVIOUS DISCOVERIES AND RESEARCH	8
4. DESCRIPTION AND INTERPRETATION OF THE FIELD REMAINS	21
4.1 The Roman Fort and its surroundings	21
4.1.1 The principal Roman roads	21
4.1.2 The fort's defences	24
4.1.3 Interior Structures	36
4.1.4 Extra-mural activity	43
4.2 Post Roman settlement and agriculture	56
4.2.1 Cultivation	56
4.2.2 Bastles, farmsteads and sheepfolds	59
4.2.3 The 'Old Inclosed lands'	66
4.2.4 Post-Roman roads and tracks	69
5. DISCUSSION	76
6. CONCLUSION	94
7. SURVEY METHODOLOGY	96
8. REFERENCES	97
APPENDIX 1. ALTARS, STONES AND INSCRIPTIONS	105
APPENDIX 2. CONCORDANCE AND ARCHIVE	117
APPENDIX 3. PERMANENTLY-MARKED SURVEY STATIONS	118

LIST OF ILLUSTRATIONS

Cover. Whitley Castle from the east in 2007 (English Heritage NMR 20677-049)	
Frontispiece. Surveying the south-western defences in January 2008	
Figure 1. Location map	1
Figure 2. Map of the Whitley Castle locality	3
Figure 3. Whitley Castle and the northern Roman frontier	5
Figure 4. Thomas Sopwith's plan of Whitley Castle	9
Figure 5. Three shoes from Whitley Castle (reproduced from Bruce 1853)	10
Figure 6. Thomas Sopwith's depiction of Whitley Castle (1853)	11
Figure 7. Plan and section of the 1957 excavation trench	13
Figure 8. The general section from the 1957 and 1958 excavation seasons	15
Figure 9. The results of the 2003 and 2006 magnetometer surveys	16
Figure 10. Whitley Castle and its surroundings viewed from the air in 1971	17
Figure 11. The transcription of the Caracalla dedication stone (RIB 1202)	19
Figure 12. The fort viewed from the north-west	23
Figure 13. Perspective view of Whitley Castle (Lidar)	24
Figure 14. The north-west wall and ramparts exposed in the 1957/58 excavations	26
Figure 15. The south corner tower, viewed from the outer defences to the west	27
Figure 16. The fort viewed from the west	28
Figure 17. View northwards across the north-western defences	30
Figure 18. The profiles of the defences	31
Figure 19. Reconstruction of the sequence of ramparts	33
Figure 20. View southwards along the south-west wall and outer defences	34
Figure 21. Conjectural plan of the fort interior	37
Figure 22. The intervallum road and granary wall exposed in 1957	40
Figure 23. Trackways and fields associated with the fort	53
Figure 24. Extract from Thomas Donald's Map of Cumberland, 1774	58
Figure 25. Bastles, bastle-derivatives and later farm buildings	60
Figure 26. Later buildings superimposed on the conjectural plan of the fort	62
Figure 27. Extract from the proposed Alston-Brampton turnpike map, 1823	64

Figure 28. Holymire barn viewed from the south-east.	65
Figure 29. Extract from Map B of the <i>Old Inclosed lands in the Manor of Whitlaw</i>	67
Figure 30. Extract from the 1865 first edition of the Ordnance Survey 6-inch map	70
Figure 31. Extract from Map A of the <i>Inclosure of Whitlaw Common</i>	72
Figure 32. Aerial photograph taken in 1971 showing Whitley Castle from the south	73
Figure 33. The infilled mine shaft at the southern corner of the fort	75
Figure 34. The visibility of the fort within the South Tyne Valley	78
Figure 35. Lead seals from Brough attributed to the Second Cohort of Nervians	87
Figure 36. Whitley Castle viewed from Whitley Common to the west	92
Figure 37. The Apollo/Mithras altar RIB 1198	106
Figure 38. The Hercules altar (RIB 1199)	108
Figure 39. Minerva and Hercules Altar (RIB 1200)	110
Figure 40. Building stone RIB 1204	113
Figure 41. The locations of the permanent survey markers	118
Figure 42. English Heritage complete earthwork survey	119
Figure 43. The earthworks of the fort 1:1 000 scale	120
Figure 44. Durham University geophysical survey (magnetic) plan	121
Figure 45. Durham University geophysical survey (magnetic) plan with earthworks	122
Figure 46. Durham University geophysical survey (resistance) plan	123
Figure 47. Durham University geophysical survey interpretation plan	124

I. INTRODUCTION

Between November 2007 and February 2009 English Heritage undertook documentary research and detailed analytical earthwork survey, and commissioned extensive geophysical survey, of Whitley Castle Roman fort and its immediate surroundings. The fort lies within the historic landholdings of Whitlaw hamlet and Castle Nook farm, on the west side of the valley of the River South Tyne, just north of its tributary, the Gilderdale Burn, which marks the southern boundary of Northumberland. The nearest modern settlement of any size is the market town of Alston in Cumbria which lies upstream along the South Tyne Valley, some three kilometres to the south east.

The investigations were designed to achieve a more detailed understanding of the Roman fort which, despite being one of the most prominent earthwork monuments in the region and unique in many respects, had previously received very little useful study. Its topographical isolation within what was until quite recently one of England's most remote upland areas may explain why Whitley Castle attracted so little attention in the past, although it may also have been eclipsed by the adjacent attractions of Hadrian's Wall to the north and the Stainmore Pass to the south. As a consequence, however, Whitley Castle has been spared the most damaging effects of antiquarian and early archaeological excavation, and today, thanks to a combination of exceptional earthwork survival, minimal modern intrusions and undisturbed, often waterlogged ground conditions, it is arguably the best preserved Roman fort in England, perhaps in Britain.



Figure 1. Location map

(This plan is based on the OS map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office, ©Crown Copyright and database right 2009. All rights reserved. Ordnance Survey Licence 100019088.)

The fort is a striking feature in the modern landscape. Its unique lozenge-shaped plan may be difficult to appreciate on the ground, but other aspects are readily visible, particularly the multiple defences outside the main fort wall, which are best appreciated from the Pennine Way as it skirts around the western fringes of the site. The array of seven ditches and intervening banks on this side is unparalleled in England; only the forts at Birrens and Ardoch in Scotland, with five and six ditches apiece, provide close comparison, and Ardoch alone approaches the same level of preservation (Frere and St Joseph 1983, 119-120, 122-3, 131-3, Bidwell 1997, 49).

The investigations at Whitley Castle contribute a window of detailed study to a broader programme of research being undertaken by English Heritage and the North Pennines Area of Outstanding Natural Beauty (AONB) Partnership, namely the 'Miner-Farmer Landscapes of the North Pennines AONB project'. This project aims to analyse the evolution of approximately 50 square kilometres of the landscape around Alston, which is characterised by highly complex mining remains and patterns of former settlement and agricultural activity. In addition to the identification of historic sites and processes, the project is concerned with the quantification of threats to the historic landscape, and the development and new methodologies for recording and analysis. Both the detailed study of Whitley Castle and the more extensive landscape project support the objectives of the Joint Accord between English Heritage and the National Association of AONBs (specifically to 'further the understanding, conservation, enhancement and public enjoyment of the historic environment') and address several of the overarching themes and programmes published by English Heritage's Research Department. (Ainsworth 2007, 4; 2008; English Heritage 2005, A1/2, C1/2, D1, E1; English Heritage 2005a)

Whitley Castle is designated as a scheduled monument (Northumberland 12) and a number of issues to do with its future presentation and management are in the process of being addressed by the landowners under the provisions of a Higher Level Stewardship Scheme. This initiative, administered by Natural England and supported by English Heritage and the Area of Outstanding Natural Beauty (AONB) Partnership, includes steps to improve access within the fort and from adjacent footpaths, to increase the information available to visitors, and to address problems of erosion caused by farm traffic and stock movement. It was recognised early on, however, that none of these objectives could be successfully achieved without a better understanding of the nature, extent and vulnerability of the archaeological remains. This practical need prompted the programme of investigations which led to this present report.

The principal research questions at Whitley Castle (Ainsworth 2007, 4) surround:

- the purpose of the fort in relation to the lead-bearing landscape of Alston Moor;
- the identification of phases in the development of the fort;
- the location and character of related extra-mural settlement and of other more specific structures such as temples;
- the potential for pre-Roman activity on the knoll;
- the evidence for the adaptation and re-use of the fort in the post-Roman, medieval and later landscape.

Given the state of preservation and unimpeded access, it was clear that non-intrusive archaeological investigative techniques, chiefly detailed, analytical earthwork survey and comprehensive geophysical survey were essential foundations for research and management. Aerial survey and transcription at 1:2500 scale was also undertaken in advance of the fieldwork by English Heritage's Aerial Survey team, but in the event the nature and quality of survival of the earthworks made it clear that this technique was not appropriate. The earthwork survey was carried out by English Heritage's Archaeological Survey and Investigation team between November 2007 and July 2008. The fort, with its particularly complex and subtle surface traces, was surveyed at 1:500 and its environs at 1:1000, all to Level 3 standard (as defined in Ainsworth *et al* 2007, 23-24), the whole survey covering an area of 19.49 hectares (48.16 acres). The earthwork survey area included the whole of the scheduled monument and extended to the north east, across the adjacent Roman road to the foot of the hillside alongside the modern A689. It also encompassed a narrow margin of associated earthworks beyond the curving intake wall

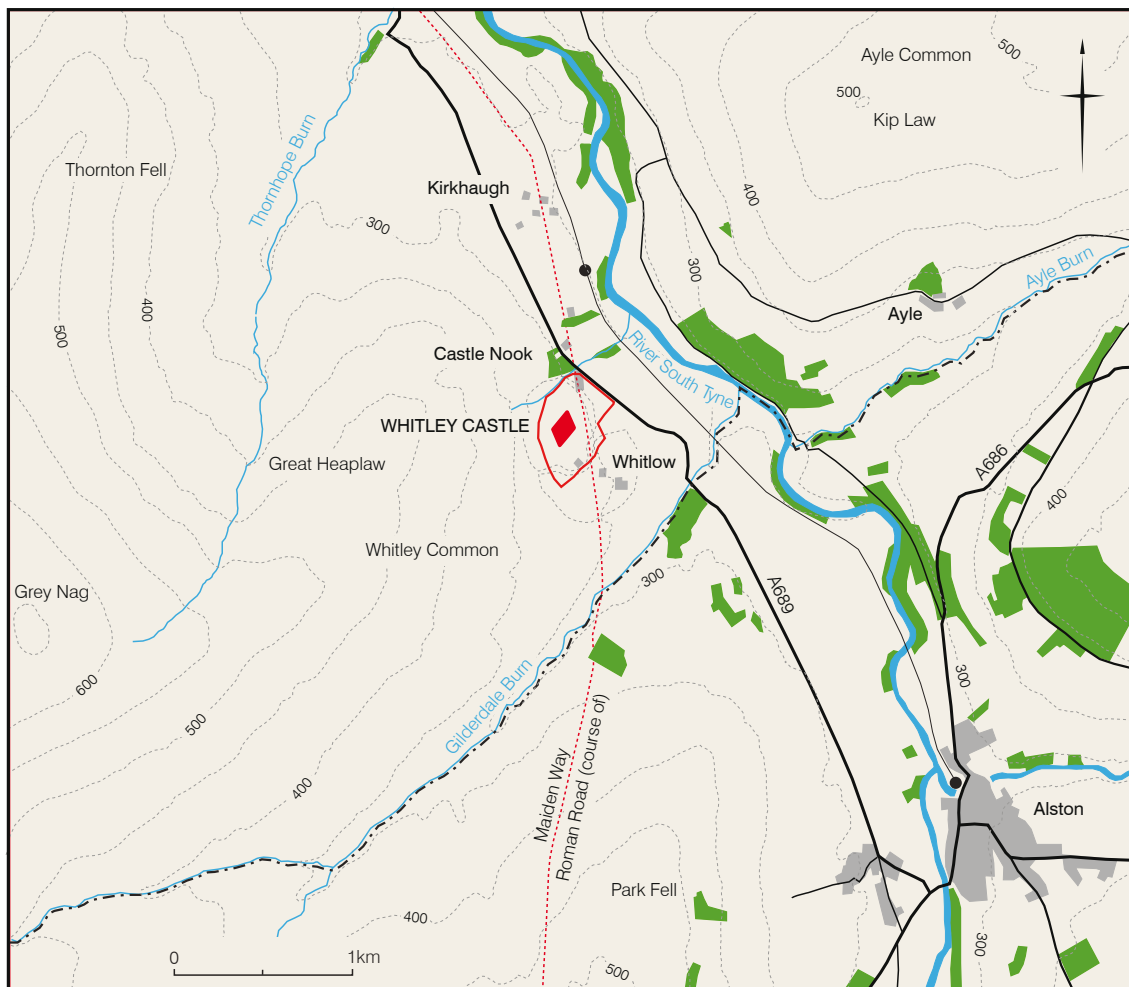


Figure 2. Map of the Whitley Castle locality (earthwork survey area marked in red).

(This plan is based on the OS map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office, ©Crown Copyright and database right 2009. All rights reserved. Ordnance Survey Licence 100019088)

on the western side of the fort, and a further expanse immediately to the south of the fort, to the west of Holymire barn (see Figures 2 and 42). The analysis presented in this report incorporates the results of two extensive geophysical surveys commissioned by English Heritage and undertaken between January and May 2009 by Archaeological Services Durham University (Hale 2009). The first, a geomagnetic (gradiometer) survey, covered an area of approximately 36ha centred on the fort and included the greater part of the fields contained within the intake wall between Whitlow and Castle Nook. The second, a detailed earth resistance survey, examined a total area of 8ha including the interior of the fort and a selection of areas around the perimeter. This report also draws on the results of earlier geophysical surveys within the fort, and to the west, carried out by GeoQuest Associates in 2003 and 2006 (Noel 2006).

However, the majority of the observations and inferences presented in this report arise directly from the analytical earthwork survey.

2. GEOLOGY, TOPOGRAPHY AND CURRENT LAND-USE

Whitley Castle occupies the end of a narrow spur, which extends counter to the general slope of the broad hillside on the western side of the South Tyne valley. Resting on the 330m contour, it stands some 80m above the height of the better-known elevated fort on Hardknott Pass in Cumbria. This vast upland area extends northwards from the Stainmore Pass to the Tyne Gap over a distance of about 45km. The upland zone is abruptly curtailed to the west by the spectacular Cross Fell escarpment above the Eden Valley, from whence, over a distance of 40km or more to the east, the land descends over deeply incised dales towards the Durham coalfields. The valley of the River South Tyne is one such incision, stretching some 15km from the head of the range southwards to Alston, and from there a further 10km to Garrigill and Tyne Head. The river's course provides an accessible route into some of the highest and most remote moorland areas in England. To the west of the valley lies the treeless expanse of Knaresdale and Gilderdale Forests and the King's Forest of Geltsdale, rising to peaks of 600m or more. Whitfield Moor ascends to the east, separating the South Tyne Valley from the valleys

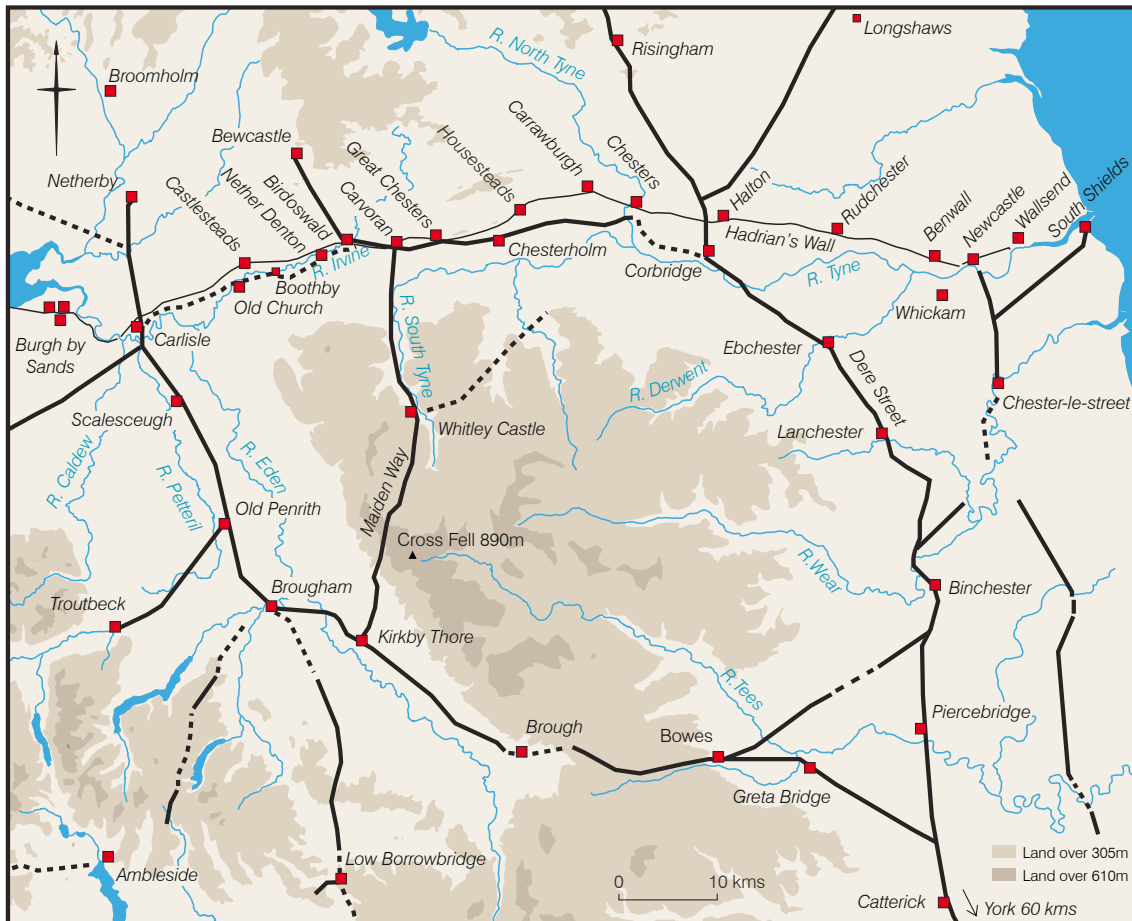


Figure 3. Whitley Castle and the northern Roman frontier.

(This plan is based on the OS map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office, ©Crown Copyright and database right 2009. All rights reserved. Ordnance Survey Licence 100019088).

of the Rivers West and East Allen; and to the south lies the truly high country - the unenclosed *massif* of Alston Moor - crowned by the peaks of Round Hill, Melmerby Fell, and the 890m-high summit of Cross Fell.

The full extent of the area termed the North Pennines and encompassed by the AONB, is also defined by geologists as the 'Alston Block' (Figure 1). This block consists of a succession of Carboniferous sedimentary rocks - chiefly limestone, sandstones and shales with thin bands of coal - arranged in a tilted structure which is responsible for the hard outcrops that underpin the more massive moorland ridges and summits to the west of the area. The differential erosion of these alternating layers (the 'Yorkshire Facies') also accounts for the distinct bands of shake-holes and the terraced appearance of many hillsides (Aalen 2006, 17-26). However, the character of the landscape is equally, if not more strongly, defined by the prolonged and extensive history of mining, principally the search for lead, silver and, later, other associated minerals such as barytes, fluorspar and witherite. The most visible remains of this exploitation - extensive spoil heaps, adits, shaft-openings, washing floors, hushes and dams - mostly date from the boom years that preceded the industry's steep decline at the end of the 19th century. However, the documented history of the industry can be traced back to the 12th century, when the Royal Mint at Carlisle was supplied by mines on Alston Moor, and the landscape doubtless contains a legacy of even earlier activity (Fairburn 1993, 12-16). Traces of post-medieval mining activity have been identified by survey within the boundaries of Whitley Castle, and it may be observed that the hillside above the fort, marked with individual coal mining levels on early editions of the Ordnance Survey map, is in fact extensively scarred by mining remains and quarries. The industrial boom in the Alston area is also reflected in the turnpike road from Alston to Brampton (now the A689) and the South Tynedale Railway, both added to the valley below the fort in the 19th century.

Whitley Castle is set amidst pastures and overlain by the drystone walls of fields taken in from the lower slopes of Whitley Common and Great Heaplaw. The fields on the slope below and to the east of the fort, and to the south beyond the curving intake wall, have been significantly improved by modern ploughing and drainage. Modern improvement is also evident in parts of the four fields which contain and surround the fort, but it is much less pronounced overall, and entirely absent from the rough pasture covering the fort interior and the steep earthworks of the wall and outer defences. Seasonal bogs occupy the ditches around the western side of the fort, and to a lesser extent to the north. Boggy conditions are also prevalent across the natural hollow immediately north of the fort, and along the seasonal drainage channels and spring lines which flow parallel to the fort's northern and southern defences. The principal drainage from the high moors to the west is provided by two tributaries to the South Tyne River. The major tributary, the Gilderdale Burn, runs some 700m to the south of the fort, beyond the cluster of farm buildings at Whitlow, where it marks the county boundary between Cumbria and Northumberland. The smaller water course, the Lort Burn, flows within a narrow, deeply incised channel some 100m to the north of the fort, and continues through mixed plantation alongside the farm buildings at Castle Nook.

The particular reasons for placing a Roman fort in this location are discussed elsewhere in this report (see sections 4.1 and 5); but some of the more practical, and possibly tactical,

advantages of its location require a short description here. A principle feature of the fort is visibility: its situation with respect to the lie of the land, and its prominence in the immediate landscape. Although the fort is somewhat overshadowed on the west by the slopes of Whitley Common and Great Heaplaw, it nonetheless occupies a commanding position within the South Tyne Valley. There is no substantial area of concealed ground nearer than the Gilderdale Burn, and elsewhere the views are extensive. Indeed, on a clear day, it is quite possible to look northwards along the valley towards Hadrian's Wall and to view the low hills of the border moors some 30km beyond. The line of the Roman military road known as the Maiden Way follows this valley route down into the Tyne Gap, where it joined the Stanegate and Hadrian's Wall near the fort at Carvoran (*Magna*), some 18km distant (see Figure 3). To the south, the same road followed a more mountainous route over a slightly greater distance (25km), ascending the pronounced ridge of Park Fell and Horse Edge and the summit of Melmerby Fell (680m) before descending to the River Eden and the fort at Burwens (*Bravoniacum*) near Kirkby Thore on the main Roman road from York to Carlisle (Collingwood 1937, 9-10; Margary 1967, 393-95 & Figure 14; Rivet and Smith 1979, 275-6, 407-8). Whitley Castle, sited at the approximate mid-way point along the Maiden Way, is the only known fort on this road, the line of which remains visible 40-80m down the slope from the fort, almost under the shadow of the ramparts.

3. PREVIOUS DISCOVERIES AND RESEARCH

The identification of a Roman origin for Whitley Castle can be traced back to the antiquaries of the late 16th and early 17th centuries, and in particular to William Camden, whose visit in 1599 resulted in the first record of an inscribed stone from Whitley Castle – a lengthy dedication slab raised in honour of the Emperor Caracalla (RIB 1202: see Appendix 1)¹. It is doubtful that the stone stood in anything like its original setting, but Camden clearly equated the inscription with the earthworks which he considered to represent a Roman station of some considerable importance (Camden 1607, 648; Haverfield 1910, 359). The local antiquarian and headmaster of Appleby School, Reginald Bainbrigg, recorded the same inscription in a visit to Whitley Castle in 1601, which he described in a letter to Camden as ‘..a mightie, stronge and large fortress, defenced with a double ditch and walls, made by the Romaines’ (Haverfield 1910, 359).

Antiquarians of this period were well aware that Whitley Castle stood upon the military road between the forts at Carvoran and Kirkby Thore; indeed Bainbrigg, in his letter to Camden, stated that he had followed the entire route of ‘this mayden waie’ between these two points (Haverfield 1910, 359). A further Roman road was proposed on John Warburton’s 1716 Map of Northumberland, branching from the Maiden Way just north of Whitley Castle and heading north east towards Corbridge. In *Britannia Romana*, Warburton’s collaborator, John Horsley, supported not only existence of this road, but also the suggestion of a Roman station on it at Old Town in Allendale, an idea which had been first proposed by Camden (Horsley 1732, 453-4; Birley 1950, 142). This route appears to have been accepted on the strength of these authorities for over a century, although by the time that Bruce illustrated this branch road passing through the ‘stationary camp’ at Old Town in the 1853 edition of *The Roman Wall*, considerable doubts had been raised about the validity of the remains reported there (Wallis 1769 2, 34; Hodgson 1840, 73; Bruce 1853, frontispiece map). In *Roman Roads of Britain*, published in 1919, Thomas Codrington declared that this was a definite Roman Road; however, his information appears to have been derived entirely from earlier sources, whereas a view advanced from more precise local knowledge held that the route was largely composed of medieval mining tracks and later roads (Haverfield 1914, 462; Codrington 1919, 150-52 and frontispiece map). The route was omitted from Margary’s subsequent development of Codrington’s work, but not from successive editions of the Ordnance Survey’s *Roman Britain* map, which show a tentative line extending about half way from Whitley Castle to Corbridge, as depicted in Figure 3 (Margary 1967, 359, Fig 14; Ordnance Survey 1956, 1978, 2001). The route remains unproven.

Sporadic discoveries of altars, statuary and inscriptions from Whitley Castle, mainly found as a result of farm improvements or noticed as reused building stones, were published at intervals throughout the 18th, 19th and early 20th centuries. An altar dedicated to Minerva and Hercules (RIB 1200) was found at the fort before 1716 and later reported by Horsley when it stood in Kirkhaugh churchyard (Horsely 1732, 252). Horsley also

¹ Full details of all the inscribed and carved stones from Whitley Castle are given in Appendix 1, where they are listed according to the catalogue numbers given in ‘Roman Inscriptions of Britain’ (Collingwood and Wright 1965). References to entries in this appendix, throughout this report, are made using the common abbreviation ‘RIB’.

transcribed part of a second dedication stone to Caracalla (RIB 1203) which he saw 'in a house that stands just at the south entry to the station, and is called Castle-nook', as well as an inscription recording some rebuilding by a detachment from the Twentieth Legion (RIB 1204) which was in the possession of the landowner, Mr Henry Wallace of Whitley (Horsley 1732, 250). In 1803 a pedestal carved with images of Hercules (RIB 1199) and accompanied by fragments of a large statute of the demi-god, were dug up near the north east corner of the fort (Weston 1813, 229; Hodgson 1840, 76). The digging of drains in this same area led to a still more elaborate discovery in 1837 – an altar depicting Apollo in various guises, including that of Mithras, complete with a pedestal and four supporting pillars (RIB 1198; Hodgson 1840, 432; Bosanquet 1924, 254). A simple altar, carved with a 'patera and urceolus' (a shallow drinking bowl and a jug), was noted over a stable door in 1810 (Hodgson 1818, 110; 1840, 76) and again in 1833 (Sopwith 1833, 38). Accounts differ as to whether this was at the present farm, Castle Nook, or at an alehouse nearby (now High Dyke house), although it can be found in neither of these locations today. Another altar, conceivably one and the same as that seen above the stable door, was reported at Castle Nook in 1911 (RIB 1201). Other lost items include a stone coffin, possibly of Roman manufacture, which was once to be found in Kirkhaugh churchyard, and a 'pegasus or winged horse, rudely carved on a small stone' which was reportedly built into an outhouse at Castle Nook Farm (Hodgson 1818, 107; Sopwith 1833, 38; Hodgson 1840, 76).

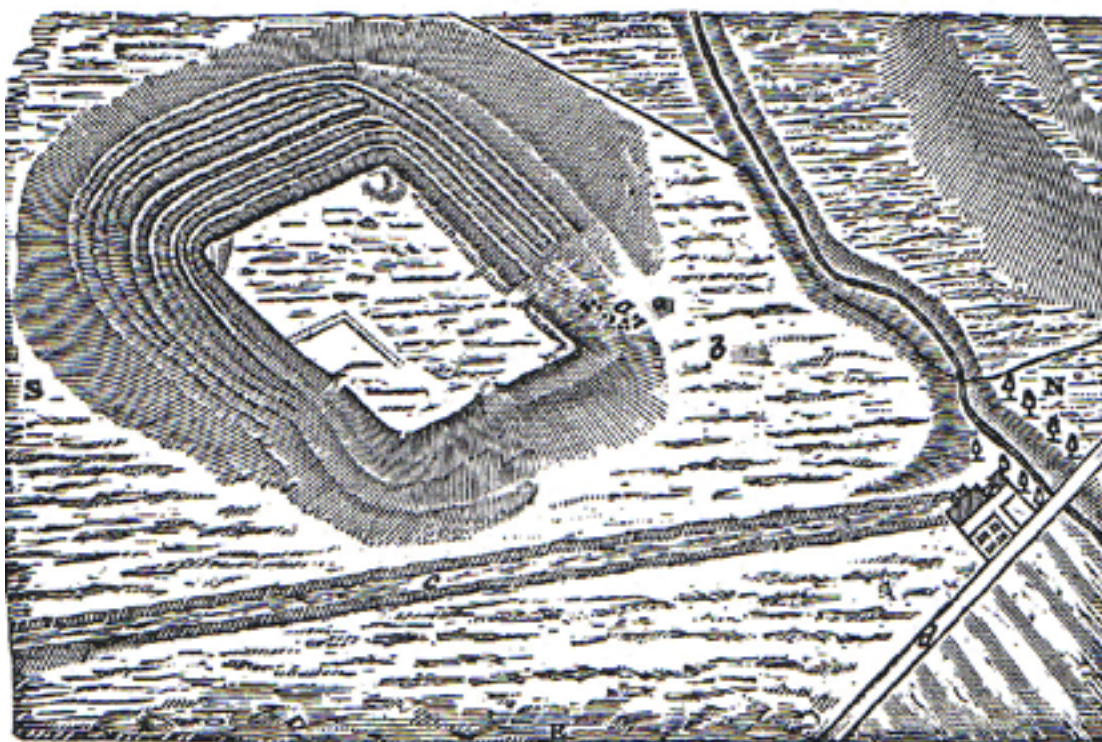


Figure 4. Thomas Sopwith's plan of Whitley Castle, published in Hodgson's 1840 History of Northumberland (volume 3, 74). The bath house is marked 'a', the spring 'b', the Maiden Way 'c' and the turnpike road 'd'. The cluster of buildings to the right (north) of the fort represents Castle Nook Farm.

More intrusive exposures of Roman activity at Whitley are recorded twice in the first half of the 18th century, once apparently by design and once following an accidental discovery. The first, the deliberate excavation of a bath-house at the north-east corner of the fort in 1809, is noted by the Rev John Hodgson, curate of Jarrow, in the early edition of his county history (Hodgson 1818, 108) and given a fuller description in the later, enlarged version of this work:

'The remains of a bath, with a very perfect hypocaustum attached to it, were opened a short time before my visit here in 1810; and the pillars then exposed were black with soot, and, as usual, supporting thin freestone flags, covered, layer after layer with coarse mortar, made of lime and lead mine spar, and lastly with a cement formed of fine gravel and quick lime, pounded limestone, earthenware, and b(r)ick.This bath is situated on the north side of the station, and adjoining the north-east corner, on the outside of the outermost earthen rampart, and has a copious and perennial spring nearly close to it.' (Hodgson 1840, 75)

The location of this discovery and that of the adjacent spring are marked on the accompanying plan, drawn for Hodgson by the mining engineer and historian Thomas Sopwith. This is the earliest known depiction of the fort to show something of the real complexity of the ramparts (see Figure 4). Sopwith himself was the first to report the second, accidental discovery, which took place nearby some 16 years after the bathhouse was uncovered, and revealed a most extraordinary level of preservation around the springhead

'In 1825, Mr Henderson, the proprietor of the estate in which this part of the station is situated, in cutting a drain, discovered a large quantity of manure under a slight covering of soil, and, on trying a few experiments, found it useful as such, and laid considerable quantities on the adjoining land. In excavating it a number of curious remains were found, several of which are preserved at the farmhouse. Among these were a great number of shoe soles of various shapes and sizes; the larger one, now in Wallington Museum, measures 7¼ inches, and the other 5¼ inches in length ' (Sopwith 1833, 39)

Hodgson, referring to notes made in September 1826, adds a few further details, notably that this 'large dung-hill, resembling a peat bog... abounds with old shoes, all made right and left – those of men, clinker-built – those of ladies, without nails, but having ears for lace-holes, and under each hole a fringe of leather thongs, cut from scallop-shaped vandykes between each ear'. According to a further entry in his notebook from May 1828 Hodgson himself seems to have taken a direct hand in the ongoing exploration of these deposits:

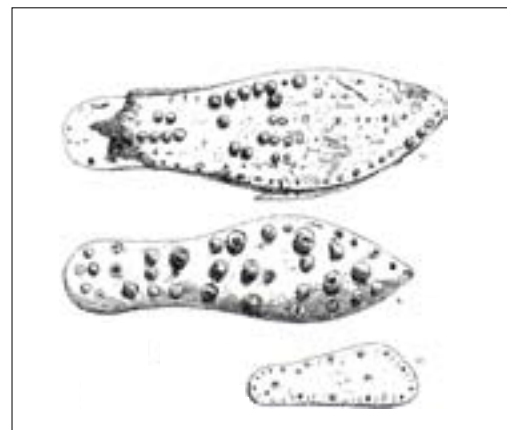


Figure 5. Three shoes from Whitley Castle, reproduced from Bruce 1853 *The Roman Wall*, Plate 18.

"Dug in the Roman midding at Whitley Castle, and found several pieces of the soles of shoes made by nailing different folds of leather together with round-headed nail, upon an iron last: the leather of a boot leg. 9 inches broad and about 20 long, of a lightish brown colour: the nails in rows, with round heads, formed by a hollow die or punch, while hot." (Hodgson 1840, 76)

A small selection of these shoes were illustrated in Bruce's 1853 *The Roman Wall* (see Figure 5), but these were far from the only artifacts to be recovered from within these deposits. In addition to a copper breast pin and copper spoon, Sopwith also noted that:

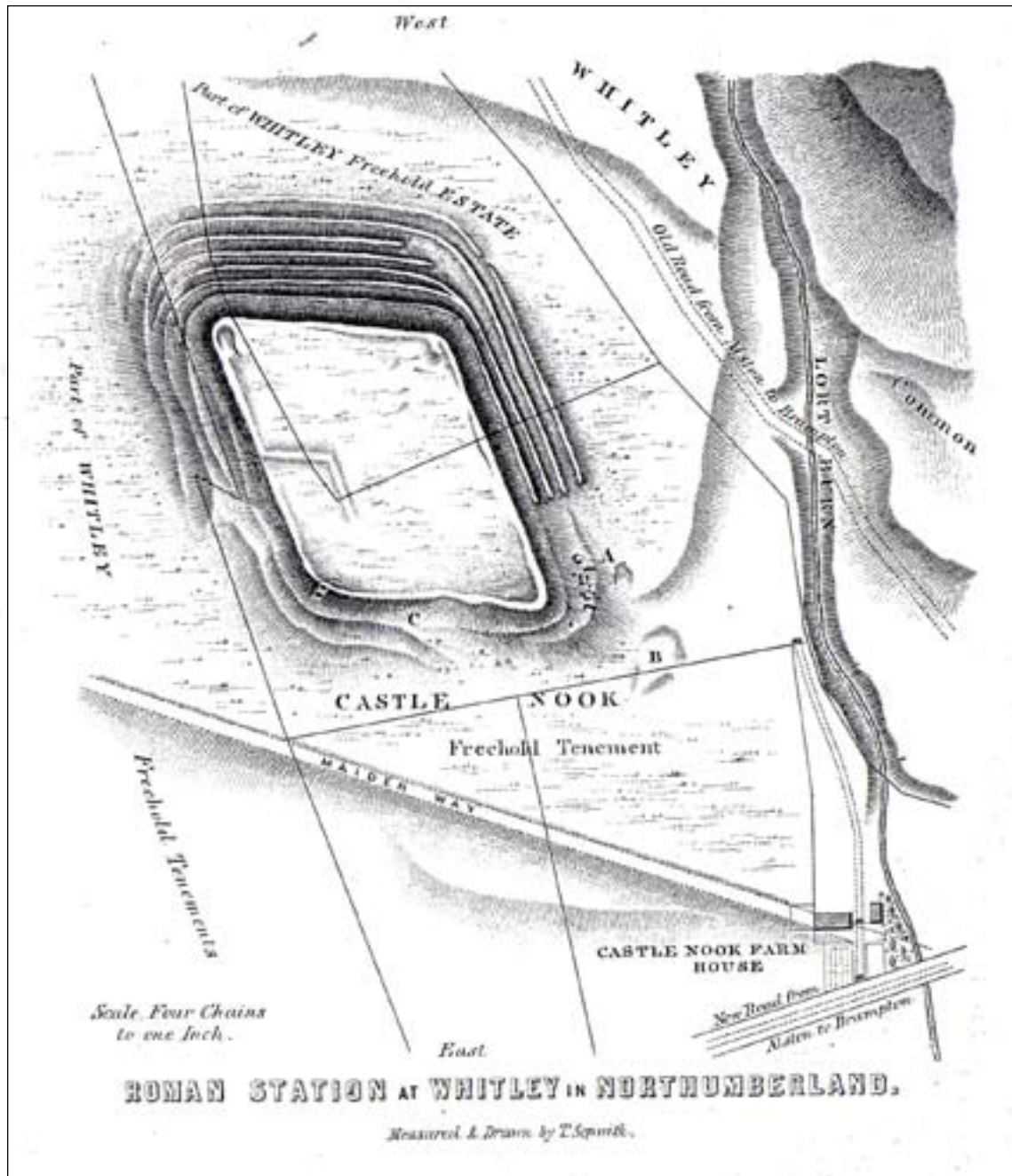


Figure 6. Thomas Sopwith's depiction of Whitley Castle published in Bruce's *The Roman Wall* (1853, facing 325).

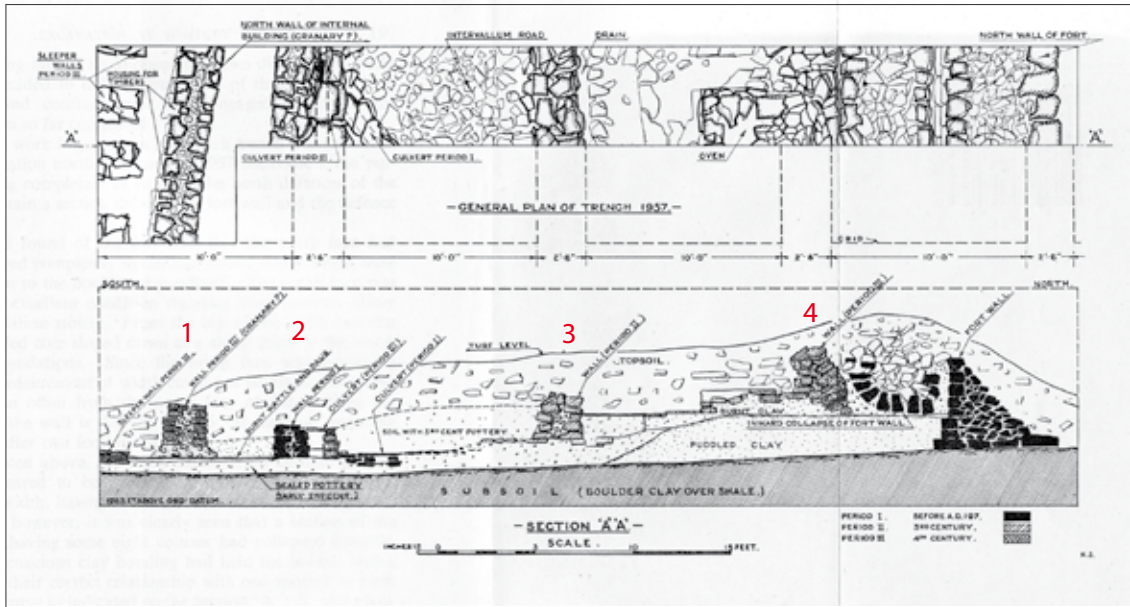
'Various fragments of earthen red tile, and of vessels of various kinds, have been found from time to time, many of them containing groups of horses and human figures in relief. Fragments also of leaden pipe, glass bottle necks, spring rings, a wooden comb, numerous Roman querns or handmills, the stone of which has been brought from quarries on the Rhine in Germany, and a huge battle-axe, are among the heterogeneous mass of antiquities thus singularly preserved.' (Sopwith 1833, 39)

Hodgson similarly recorded an 'abundance of fragments of earthenware, some of a red colour, very thin and light, and bearing a fine polish; others black, and also highly polished, and all ornamented with figures in relief', wares which would now be referred to respectively as *terra sigillata* (sometimes less correctly called 'Samian ware') and *terra nigra*, as well as fragments of green glass, bracelets made of jet 'or fine cannel coal' and a rock crystal object 'playfully brilliant with opal-coloured light', among the proprietor's collection of artifacts (Hodgson 1840, 76). In one intriguing entry Hodgson wrote that the dung heap contained 'much hazelwood.... and stakes that had been pointed with an ax, still standing upright', as well as 'moss of the species *hypnum squarrosum*, and straw of some species of grain, both used as the bedding of horses.' (Ibid, 76-77)

The location of the dung heap, as well as those of the bath house and spring were marked on Sopwith's later and more accomplished plan of the earthworks published in Bruce's *The Roman Wall* (1853, plate opposite 325; see Figure 6). Curiously, Bruce made no attempt to identify the features which are marked by the letters on the plan (see Figure 6); although some conclusions can be reached by comparing this plan with Sopwith's earlier drawing (Figure 4). The spring is certainly marked, as earlier, by the letter 'B', and it may be, as has been suggested, that the letters 'A' and 'D' together indicate the site of the bath-house (Bosanquet 1925, 254 and plate facing 252). This does not, however, allow for the possibility that 'A', or perhaps 'D', was intended to identify the separate but adjacent site of the Roman midden.

The 1957-8 excavation

Leaving aside the poorly-recorded unearthing of the bath house around 1810, there has been only one formal archaeological excavation at Whitley Castle. This was directed by Noel Shaw on behalf of the Excavation Committee of Durham University, and carried out in two short campaigns in June 1957 and June 1958. Shaw's first season saw the excavation of a single trench extending 50ft (15.2m) from the northern rampart into the interior of the fort. In the second season this was extended northwards over a distance of 132ft (40.2m) to straddle all four lines of banks and ditches forming the outer defences on this side (Shaw 1959, 191-202). Shaw's findings were understandably limited by the sample afforded by the narrow trench, but they are, nonetheless, very illuminating. More than a hundred years earlier Hodgson noted that the interior was 'irregular with the remains of buildings' but, given the absence of *in situ* stone work or reused stone in the neighbouring farms and field walls, he and others did not consider that the fort had much masonry about it (Hodgson 1840, 74; Bruce 1853, 325). Later writers qualified Hodgson's view by pointing to robbing scars along the ramparts and elsewhere, but Shaw's work was the first to provide incontrovertible proof not only of a substantial fort wall, but also a succession of stone building phases within the interior.



Behind the wall and rampart Shaw found indications of an intervallum road, some 14 feet (4.3m) wide, composed of slabs laid over the top of the built-up layer - the northern limit marked by an open drainage channel, the southern edge overlying a culvert. Shaw suggested that the southern edge of the roadway was limited by a narrow wall (Wall 2, Figure 7), which he ascribed to a first construction phase. This lay parallel to the fort wall, was built with the same materials, and, like the road surface, sat directly above the build-up layer. A compact layer of burnt wattle and daub associated with this structure suggests that it was destroyed by fire, although Shaw's association of this event with the uprising of AD 197 implies a precision which cannot really be supported by the available evidence. The period of reconstruction that followed was broadly dated to the 3rd century from pottery fragments found in the made-up ground which sealed the intervallum roadway as well as the burnt remains of the earlier building. The unbonded stone foundations of a second wall (Wall 3) placed directly on top of the road surface could indicate a 3rd century structure, built, as Shaw thought, at the same time as the interior was raised. On close examination of the section drawing, however, it seems equally or perhaps more likely that these foundations were dug down into the 3rd century layers, and therefore belong to a somewhat later phase. The southern end of the 1957 trench revealed the northern wall of a substantial building which, to judge from the quality of the bonded masonry and the provision of internal sleeper walls for a suspended wooden floor, almost certainly served as a granary. Shaw believed that this building dated from the 4th century, the final period of use (Shaw 1959, 194). However, his own section drawing clearly shows that the north wall acted as the limit of the raised ground added in the 3rd century, and it must, therefore, have already existed by the time of this operation. Shaw's final period of occupation, dated to the 4th century, included a large drystone wall (Wall 4), perhaps signifying a building containing an oven, which encroached on the rampart, and the addition of a stone-lined culvert alongside the remains of Wall 2. The final events recorded from Shaw's excavation were the inward collapse of the interior face of the fort wall (which was remarkable for retaining eight courses of facing stones in a 'plastic curve', see Figure 7), and the subsequent accumulation of topsoil containing stone robbing residue and unstratified fragments of 3rd- and 4th-century coarse-ware cooking pots bowls and dishes (Ibid, 194, 199).

The northward extension to the trench in 1958 examined the fort wall and the full suite of defence works beyond – the berm, three banks and four ditches (Figure 8). There were no signs of any alteration to individual lines of defence, apart from a thin line of stone revetment at the outer edge of the middle bank, which included a weathered fragment of chamfered string course taken from a building, suggesting that it might be a late repair. The mass of shale and boulder clay used in the banks matches the bulk excavated from the ditches and the overall impression was that of a planned system. Shaw suggested that all might have been created at one time and remained unaltered, or else that the berm and first ditch were created first, and other lines of defence added from later necessity (ibid, 198).

Only one further archaeological investigation took place at Whitley Castle in the second half of the 20th century: an earthwork survey undertaken by Ray Farrer of the Royal Commission on the Historical Monuments of England as part of a wider thematic study of the Roman military in the North. Work on this survey, conducted at 1:1 250 scale

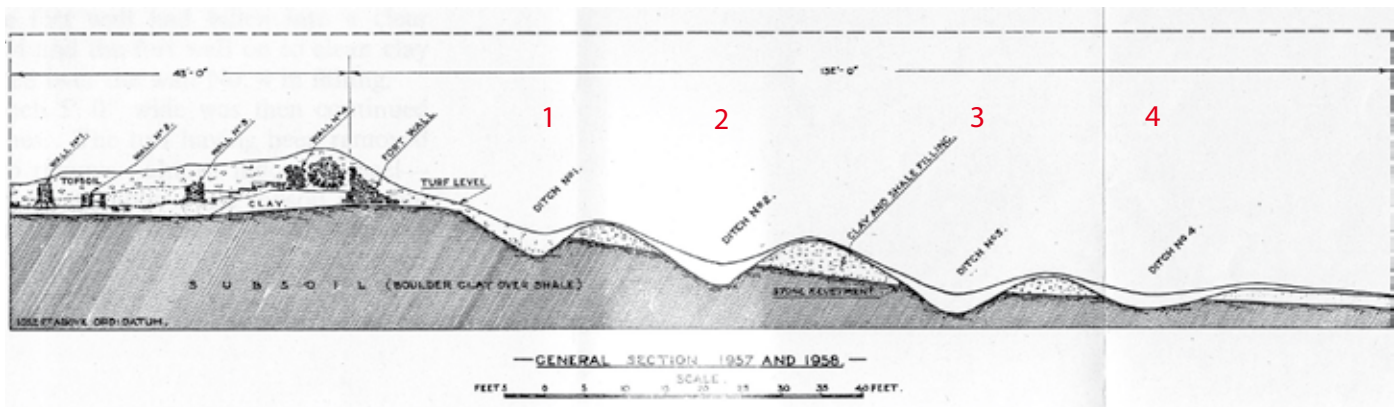


Figure 8. The general section from the 1957 and 1958 excavation seasons (Shaw 1959, figure 2: courtesy of the Society of Antiquaries of Newcastle upon Tyne)

using prismatic compass and tape, took place at intervals through the late 1970s and early 1980s, but did not result in a report or published plan. An incomplete draft of the plan is deposited in the National Monuments Record, Swindon (NMR 1047650). This shows the circuit of defences in some detail and with a high degree of accuracy, but the depiction of other features, both inside and outside the fort is far from complete, reflecting a tendency to omit anything which was not demonstrably Roman in origin. It is, however, a useful record, particularly so as Farrer took note of drainage works taking place around the fort at the time and the occurrence of worked stone and other artifacts thrown up in the process (discussed in Section 4.1.4 below).

The 2003 and 2006 geophysical surveys and the question of a *vicus*

The next systematic archaeological investigations were two geophysical surveys organised by local historian Alastair Robertson in June 2003 and June 2006. These surveys were intended, firstly, to test the effectiveness of magnetometer survey against a pattern of wall footings and other features predicted to exist throughout the interior of the fort; and, secondly, to explore an area outside the fort for traces of a putative civilian settlement, or *vicus* (Noel 2006, 2). The results of these surveys, and those of the geophysical survey carried out as part of the latest suite of investigations, are discussed in greater detail in following sections of this report. It is sufficient here to note that the 2003/6 programme successfully met its stated aims.

The magnetic anomalies revealed within the fort (see Figure 9) clearly indicated blocks of buildings divided by principal interior roads, although the outlines of individual structures and other internal features were less easy to discern, due, possibly, to an overburden of tumbled masonry and upcast from episodes of stone robbing (ibid, 3). Successive phases of construction and demolition, depicted as a two-dimensional image by the magnetometer, might also account for some of these more amorphous geophysical patterns. Some building blocks, particularly those identified most clearly as barracks to the south-west, and those of a less definite type to the north-east, contained signatures of strong magnetic deposits thought to reflect accumulations of tile fragments or roof nails (ibid, 3-4).



Figure 9. The results of the 2003 and 2006 magnetometer survey by GeoQuest Associates (reproduced courtesy of Alastair Robertson)

The possibility that a settlement might have existed adjacent to the fort occurred to John Hodgson, although he was unable to identify any trace of it other than the exposed bath-house (Hodgson 1840, 76). Subsequent visitors seem to have been equally unaware of the comparatively slight earthworks that surround the fort until the first aerial photographs of the fort were taken, and speculation about a *vicus* was renewed, with attention drawn in particular to the faint rectangular plots around the north and north-western perimeter of the fort (St Joseph 1951 plate 16; Frere and St Joseph 1983, 118, plate 70 - see Figure 10). Specialist aerial photography by English Heritage has continued to the present day. In 1985, on the additional evidence of worked stone unearthed in drains and noted by Farrer, the scheduled monument was extended across these areas up to the intake wall (English Heritage AA 10817/1). The 2006 geophysical survey examined a segment of the extended scheduled area to the west of the fort (see Figure 9) where it provided the first compelling evidence for buildings beyond the fort: two substantial rectangular structures some 30m beyond the westernmost defences, as well as a cluster of unspecified features to the south west of the fort (Noel 2006, 3-4).

The identity of the fort and garrison.

The little that is known about the garrison at Whitley Castle is derived entirely from the inscribed stones discovered in the vicinity. The posting of a detachment of the Sixth Legion is suggested by centurion Gaius Vitellius Atticanus' dedication of the Hercules pedestal, mentioned above (RIB 1199). The building stone seen by Horsley before 1732



Figure 10. Whitley Castle and its surroundings viewed from the north in 1971. Note the clear line of the Roman road running downslope from the fort, and the traces of rectangular plots outside the northern defences

(Copyright reserved Cambridge University Collection of Air Photographs BEW 16)

(RIB 1204) left an unambiguous record of reconstruction work by a vexillation from the Twentieth Legion, and the crude depiction of a winged horse seen in the outbuildings at Castle Nook Farm around 1840 (Appendix 1, 'Pegasus stone') might signify the presence of a detail of men from the Second Legion. None of these stones provide evidence for the dates when such deployments might have taken place. The most elaborate inscription from Whitley Castle, the dedication to Caracalla recorded by Camden and Bainbrigg around 1600 (RIB 1202) can, however, be dated quite precisely to the period between the emperor's fourth consulship in AD 213 and his death in AD 217. There is a history of misunderstanding surrounding this dedication (discussed further below), but it is now accepted that the unit concerned was the Second Cohort of Nervians, one of six auxiliary regiments raised from the Nervii tribe in *Gallia Belgica* and sent to Britain with

Governor Quintus Petillius Cerialis in about AD 71 to serve in the Brigantian campaign (Haverfield 1910, 347-8; Holder 1982, 119-20). Inscriptions at Wallsend, Carrawburgh and Vindolanda record the presence of this cohort, or at least individuals or detachments from it, during the 2nd century (RIB 1303, 1538, 1683; Holder 1982, 120; Southern 2007, 17-18). The Whitley Castle dedication slab, on the other hand, indicates that the entire cohort, or at least a substantial part of it, was garrisoned at Whitley Castle in the early 3rd century, presumably at the time when the frontier had been re-established in the aftermath of Severus and Caracalla's campaigns against the Maetae. By this time, but not necessarily as a result of the recent campaign, the Second Nervians had received the rare privilege of a block grant of citizenship as indicated by the honorific 'CR' (*Civium Romanorum*) included in the inscription. This privilege was invariably awarded for conspicuous bravery in action. In Britain there were eleven such regiments (Holder 1982, 22).

Two other inscriptions from the site have been ascribed to the Second Nervians, although in both cases the evidence is less than complete. The fragment of a second dedication stone to Caracalla, drawn by Horsley in the early 18th century and subsequently lost, includes a reference to soldiers from a cohort, although the reconstruction of missing details for the particular unit is entirely speculative (RIB 1203). The inscription on the altar to Apollo/Mithras found in 1837, and now housed in the Great North Museum, Newcastle upon Tyne, is more informative (RIB 1198). It was dedicated by an officer from a cohort, quite possibly a Nervian cohort to judge from the surviving letters 'Ne', but the stone is damaged and its particular association with the Second Nervians cannot be confirmed. Coins were found in the sockets of each of the four pillars supporting the slab into which this altar was set, one of which is thought to have been struck for Faustina, the wife of Antoninus Pius, between the date of her death in AD 141 and that of the emperor in AD 161 (Hodgson 1840, 432; Bosanquet 1925, 253). This could indicate an earlier presence of Nervians at Whitley, though the coin might equally have been old when used in this context.

In the 1600 edition of *Britannia* William Camden proposed that Old Town, marked alongside the River Alon (the East Allen) on Saxton's map of Northumberland, could be the Alone listed in the 3rd-century Antonine *Itinerary*; he also equated Alone with Alione, a place garrisoned by the Third Cohort of Nervians and its tribune according to the *Notitia Dignatatum*, a unique document which details administrative posts in the western Empire in the early years of the 5th century. In subsequent editions, however, Camden omitted all reference to Old Town and transferred the identification of Alione to Whitley Castle (Birley 1950, 142-144). The reason for this change, as Francis Haverfield discovered in 1910, can be found in Camden's re-assessment of the information provided by the long dedication to Caracalla (Haverfield 1910, 358-360). A copy of this stone, in Camden's own hand and probably dating from his visit in 1599, survives in the Bodleian library, Oxford. This clearly shows that the Second Cohort of Nervians were responsible for the dedication, and the same attribution is recorded in a transcription which Camden received in a letter from Reginald Bainbrigg after 1601, now in the Cotton collection of manuscripts (*ibid.*, 359). But Camden's marginal note on Bainbrigg's letter - 'cohors III Nerviorum Alione' - shows his intention to read the evidence differently in order to locate Alione at Whitley Castle (see Figure 11). This mis-reading subsequently appeared in the 1607 edition and all later versions of *Britannia* (Haverfield 1910, 359; Birley 1950, 142).

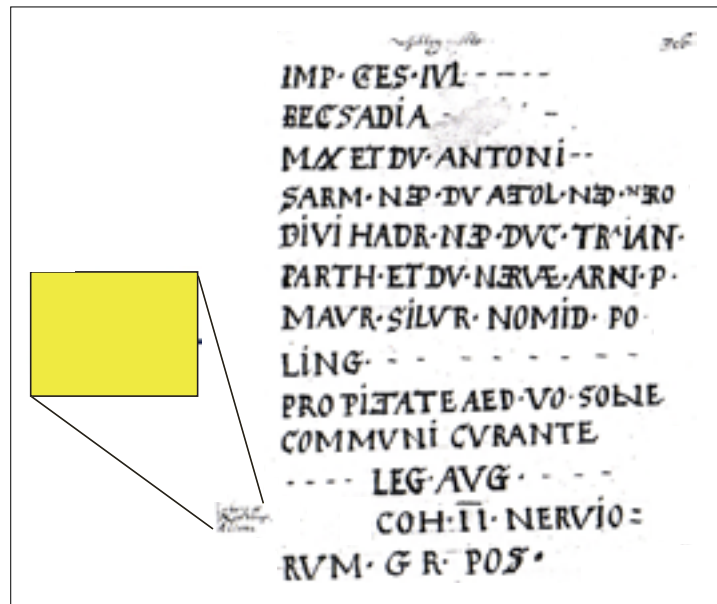


Figure 11. The transcription of the Caracalla dedication stone (RIB 1202) in a letter from Reginald Bainbrigg to William Camden dating circa 1601. The note in the margin, disputing the identification of the regiment concerned, is in Camden's own hand (Cotton Julius F.VI, fo 331, olim 313, after Haverfield 1910, 358). Reproduced with the permission of the Cumberland and Westmorland Antiquarian and Archaeological Society.

Camden's convenient error was taken at face value by later authors, and in particular by John Horsley, who not only reinforced the case for *Alione* at Whitley Castle in his influential *Britannia Romana*, but also re-stated the identification of *Alione* with *Alone*, and supported this with dubious assertions about the distances to other Roman stations mentioned in the *Itinerary* - including the unfounded example at Old Town, which he equated with *Galava* (Horsley 1732, 110-111, 453-4). These strained historical associations reappear in Wallis' county history and in Bruce's *Roman Wall*, although Hodgson raised doubts which found echoes in other works towards the middle of the 19th century (Wallis 1769, vol 1 footnote vii, vol 2, 20; Hodgson 1818, 107-8; 1840, 73; Bruce 1853, 325; Bainbridge 1855, 39; Shaw 1959, 191). Subsequent studies have disassociated Whitley completely from either of these place-names. The 10th *Iter* (meaning 'journey') of the Antonine *Itinerary* is now thought to refer to a route which ran broadly parallel to the coast between Cheshire and the southern Lake District, and *Alone* has been placed at the forts either at Watercrook in Cumbria, or at Lancaster (Rivet and Smith 1979, 170-172, 244; Smith 1997, 372-5). The *Notitia*'s later schedule is similarly believed to follow a north-westerly chain of commands, and Maryport on the Cumbrian coast and Lancaster are now considered to be the most promising candidates for the garrison of the Third Nervians at *Alione* (Rivet and Smith 1979, 244-5, Smith 1997, 375-77).

A more plausible identity for Whitley Castle is provided by Ptolemy's *Geography*, which is thought to have been written around AD 140-150, although much of the information it contains, particularly for northern England, may be derived from the work of a slightly earlier geographer, Marinus of Tyre (Rivet and Smith 1979, 103-114). Ptolemy's

representation of Britain includes nine named places in the Brigantian tribal area, one of which, *Epiacum*, was located 280 Roman miles from London and 85 from York. A modern calculation places Whitley Castle at distances of 275 and 90 Roman miles from these respective points, a difference so minimal that it seems reasonable to suppose that Whitley Castle and *Epiacum* are one and the same (ibid 119-120). The name itself, *Epiacum*, is taken to mean an estate or property belonging to *Eppius*, a personal name derived from the Celtic *epos* meaning 'horse', rendered in Latin form (Ibid 360).

4. DESCRIPTION AND INTERPRETATION OF THE FIELD REMAINS

4.1 The Roman Fort and its surroundings

The following section provides an interpretation of the results of the earthwork and geophysical surveys, and includes descriptions of the fort's interior, defences and gateways, the evidence for contemporary extra-mural settlement and for subsequent periods of occupation, including later farmsteads set within and beyond the fort wall. The complete plan of the earthworks, surveyed at a scale of 1:1 000, will be found at the back of this report, together with a more detailed plan, surveyed at 1:500, of the fort's ramparts and interior. Both plans (Figures 42 and 43) are annotated where description alone may be insufficient to identify a feature mentioned in the text. Numbers indicate features which belong to, or are associated with the fort. Roman numerals are used for the sequence of ramparts. Later features are marked by upper case letters, and trackways of all periods are marked with the prefix 'Tr'. The results of the geophysical surveys provided by Durham University (Hale 2009) are similarly reproduced as oversize Figures 44 and 45 (magnetic) and Figure 46 (resistance), and the specialist interpretation of these readings is summarised in a further illustration (Figure 47). Features from these plans are also identified by letters and numbers on the earthwork plans where clarification is required, notably where the geophysical readings add to, or conflict with, the interpretation of the visible remains.

4.1.1 The principal Roman roads

The Maiden Way (Figure 42, I) runs across the slope below and to the east of Whitley Castle, some 80-110m from the fort wall. Aerial photographs, in particular a number taken in 1971 (see Figure 10), show a very distinct route here - a broad carriageway flanked by pronounced ditches - but this is somewhat misleading. On the ground the line of the Roman road can be followed as a broad but slight terrace, rather irregular due to later disturbance, running roughly north to south between the 300m and 310m contours across the full width of the earthwork survey area. It is overlain, everywhere, by a pattern of broad ridge and furrow ploughing across its line, but this pattern is in turn fragmented by the later introduction of a narrow and more sinuous trackway along the line of the earlier road. The date when this occurred is unknown, although such a track is shown on the first edition of the Ordnance Survey (1865) 6-inch scale map linking the farms at Castle Nook and Whitlow, and not shown on later editions from 1901 onwards. Of the two road-side ditches which show so clearly on aerial photographs, that to the east certainly post-dates the ridge and furrow and clearly belongs either to this secondary phase of use, or to a more recent episode of land drainage. Such an episode occurred in the early 1980s when a series of land drains were cut diagonally across the slope. In observing this process, Ray Farrer noted traces of metalled surfaces wherever the drains crossed the road, although it is not entirely clear if these related to Roman road, later repairs, or both (Farrer 1981). Following pasture improvement the western roadside ditch, which was still quite pronounced in 1971, is barely visible on the surface, although it can still be traced on the geophysical survey plans.

Although the course remains identifiable, the combined effects of historic ploughing, drainage, modern field dressing and the passage of farm vehicles, have combined to largely obscure the characteristics of the original Roman road. Indeed to the south, where it is crossed by the track to Holymire, the route is represented by little more than a single scarp marking the eastern (down-slope) side of the road. Where it is best preserved the road terrace measures about 6-8m across. This compares well with the width of 21 feet (6.4m) recorded elsewhere along the length of the Maiden Way (Bainbridge 1855, 45), but there is scant visible evidence for the raised camber which, on Melmerby Fell, once measured up to '4 feet high, with a surface of small flat stones, and edges retained by large kerbstones' (ibid, 37-39). The final 60-70m length of the road which can be seen approaching the farm buildings at Castle Nook on the aerial photographs taken in 1971 (Figure 10) was obliterated by the deep terrace cut into the hillside for the new byre in the early 1980s. This work did not impinge on the area of the scheduled monument as defined at that date and no archaeological investigation took place.

Beyond the survey area the line of the Maiden Way continues north from Castle Nook marked by a conspicuously straight boundary wall which departs from the far side of the A680 by the Lort Burn bridge to run past Dyke House and beyond (see Figures 2 and 30). The gully of the Lort Burn doubtless presented a significant obstacle for the Maiden Way, as it did for the later turnpike road, and it seems likely that the crossing would have been achieved at a similar point. The south side of the burn, on the projected line of the Roman road, is unavailable for study having been terraced outwards with demolition material to provide a footing for a modern farm building. The exposed northern side revealed no evidence of metalling or masonry, but it does retain a curious rounded projection (2), perhaps intended to limit the necessary span of a bridge in either timber or stone. This interpretation is far from conclusive, however, especially given a history of severe flood damage in this area. In 1829, for example, torrential rain resulted in the loss of the bridges on the Lort, Gilderdale and Thornhope burns (Sopwith 1833, 41). There is also the distinct possibility of disturbance arising from the construction and renovation of the adjacent turnpike bridge.

The front gate of the fort, the *porta praetoria*, faces north-eastwards directly towards the Maiden Way, and the *via praetoria* which issued from this gate is clearly visible in the magnetic survey results, extending between the terminals of the outer defences to meet the main road (Figures 42 and 43). On the ground the situation is complicated by the cluster of later features near the gateway and by the ridge and furrow beyond, but a slight hollowing beneath the ridge and furrow (3) nonetheless reflects the same alignment. The nature of the junction between these two roads is, however, almost completely obscured by later disturbance, including the imposition of a comparatively modern field boundary at this point.

There is clear evidence that the fort was also connected to the Maiden Way by a well-defined spur road (4) which ran broadly parallel to the Maiden Way and which may have carried the majority of the traffic to the fort. This route seems to have separated from the main road some 300m to the south of the fort, although the precise point of departure lies outside the survey area, lost amidst the activity associated with the hamlet at Whitlow. Within the earthwork survey area the road emerges at the eastern end

of Holymire barn and extends as a narrow hollow way across the adjacent level ground (where it is cut by two seasonal streams) before rising sharply to the south-east gate and continuing through the fort as the *via principalis*. Then, after descending the slope beyond the north-west gate, the road resumes its northward course along a broad terrace (5) towards the Lort Burn. There is a slight suggestion that the route turned fractionally to the west before arriving at the burn, but no clear evidence could be found of a crossing point in this location due to the subsequent effects of flood erosion and soil slippage, and the imprints of later routes worn into the sides of the gully. Isolated outcrops of possible metalling on the more severe slopes within the defences may indicate a better quality of road construction in these areas, as indicated by the magnetic survey data, although equally these may simply reflect the re-dressing of areas which were particularly vulnerable to erosion.

The fourth road from the fort (6) extends the line of the *via decumana* beyond the south-west gate. Passing through the defences, this road ran precisely perpendicular to the south western wall and presumably to the façade of the former gate house. Beyond the defences it swung slightly to the south where the remains of a straight and well-defined *agger*, some 8m in width and 0.5m high, continue across the centre of the saddle between the back of the knoll and the foot of Whitley Common. The magnetic survey results indicate flanking ditches either side of the *agger*, which can be traced as far as the later intake wall, and perhaps slightly beyond. It is quite possible that only those sections of road approaching the defences and the gate were properly engineered in this fashion. Further afield, the road appears to divide into a variety of minor tracks leading up and across the slope, most of which were subsequently overlain by later tracks and roads skirting around the intake wall (discussed in sections 4.15 and 4.2.4). The most pronounced continuation is an embanked and deeply-incised hollow way (Tr1) which runs up the sharp gradient outside the intake wall for some 20m (consistent with the geophysical indications of the road-side ditches) before turning north and extending in a narrow terrace towards the modern farm track. The contours of these earthworks are,

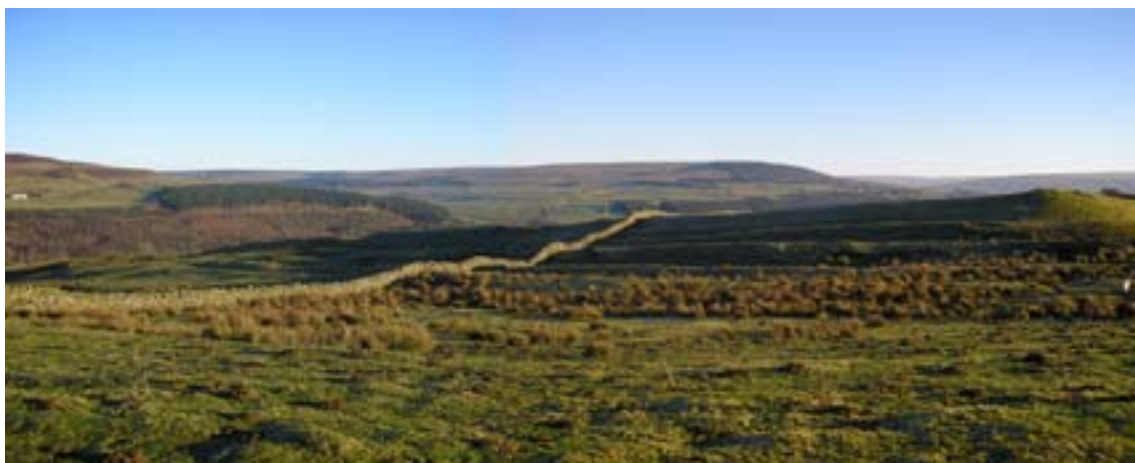


Figure 12. The fort viewed from the north west, showing the full length of the north-west wall and defences. Note the fall in height from west to east. The high ground in the middle distance, beyond the South Tyne Valley, is Newshield Moss. The high ground on the far horizon is Alston Moor.

however, perhaps too sharp for a trackway of purely Roman military origin, although a more local purpose, related to areas of settlement beyond the northern and western defences, must be considered. A second route (Tr2) extends southwards for perhaps 100m within the line of the later intake wall, before it becomes lost amidst a number of scarps and platforms which may be associated with a later field system. These are discussed more fully in the later section of the report dealing with trackways and fields.

4.1.2 The fort's defences

One of the most striking aspects of the fort when viewed from the air, or indeed in plan, is the rhomboidal outline of the defences. This departure from the usual 'playing card' shape appears to be an adaptation suited to the advantages and limitations of the natural topography - enclosing the rather ovoid crown of the underlying natural knoll and utilising the surrounding slopes to enhance the defences. In adapting the spur the fort's builders acquired a fall of about 5m from the base of the wall to the level of the outer works along both the north-west and north-east sides, and still more impressive fall of nearly 13m to the south-east. To the south-west, where the spur is connected to the rising fell, the advantage was somewhat less at about 2.5m, but even this limited elevation will have been advantageous when surmounted by the full height of the wall. Beyond the outer ditches to the north-west and north-east the ground descends quite gradually towards the River South Tyne, but on the south side the severe slope of the natural spur continues well below the outermost circuit of defences, making this aspect especially formidable. The internal angles of the fort wall - 64 degrees to the north, 62 degrees to the south, 116 to the east and 118 degrees to the west - complement each other to produce a near perfect parallelogram, demonstrating a requirement for regularity even in such altered circumstances, as well as competence of the Roman surveyors. Allowing for the irregularity of the earthworks along the perimeter wall, an acceptable estimate of the original external dimensions of the fort is some 136m by 108m, and the maximum

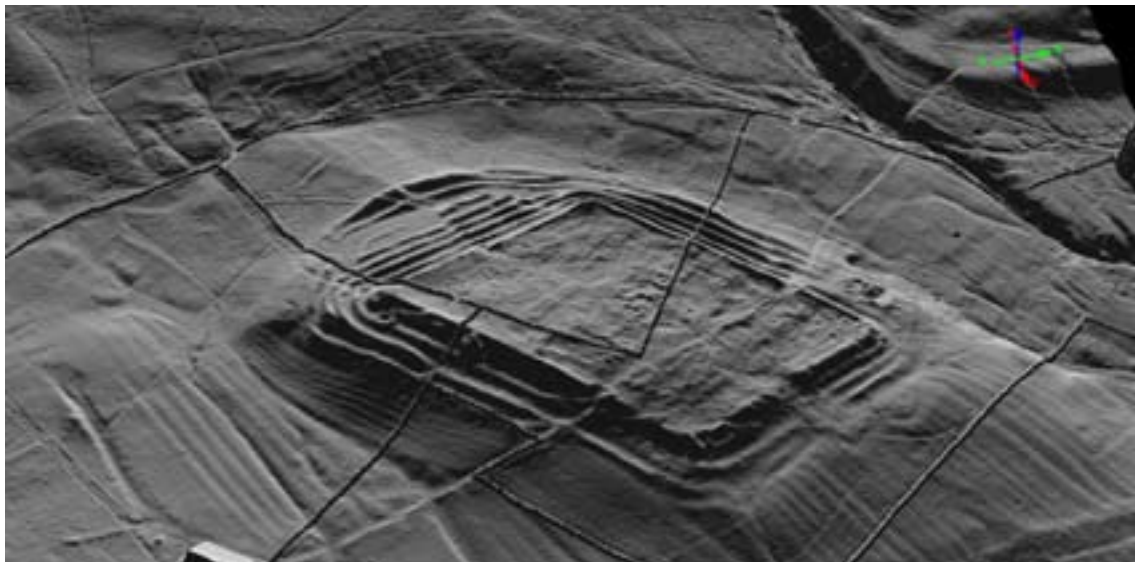


Figure 13. Perspective view of Whitley Castle and its setting derived from 0.5m 'first pulse' aerial Lidar (Light Detection and Ranging) data recorded for the 'Miner-Farmer Landscapes of the North Pennines AONB' project in 2009. Copyright English Heritage.

available space within the wall (including the area of the internal rampart) would have been approximately 1.24 hectares (3.06 acres). The fort inclines from south-west to north-east, so whereas the two shorter walls appear quite level, the longer sides gradually lose height (about 10m) between the corners.

The interior is subject to the same loss in height, but this is achieved by a pair of artificial terraces in the *praetentura* (front half of the interior of the fort) in addition to the natural slope (see Figure 13).

In addition to the peculiar shape, the fort plan is notable for the elaborate nature of its encircling defences. The factors which might have led to the pattern of ramparts visible in the survey results are discussed in greater detail below (section 5). In short, however, the innermost defences comprise two complete circuits of embanked ditches separated from the wall by a narrow berm. These earthworks survive particularly well along the north-west side of the fort where they are accompanied by two similar, equally well-preserved outer lines of defence. The outer ramparts have been degraded by ploughing along the north-eastern arm of the fort, but the outline of the third ditch, and traces of the fourth, can still be detected on this side. On the steep south-eastern flank the innermost ramparts form terraces rather than ditches, and it is doubtful that the third line, let alone the fourth, ever extended along the entire length on this side of the fort. The south-western arm, which was expanded to include at least seven banks and ditches during the lifetime of the fort, is by far the most elaborate. It is easily the equal of the north-western arm in terms of preservation, although clearly not in terms of the quality of the original construction.

Fort wall, towers and gates

Shaw's 1957-8 excavation trench can still be traced across the north-western defences just to the east of the dry-stone wall (see Figure 43). This exposed a well-preserved part of the fort wall, built with a rubble and clay core encased by regular hammer-dressed blocks derived from thin-bedded coal-measure sandstone (see Figures 7 and 14). Shaw thought this stone to be very local, and the precise source has recently been identified by the authors, during wider fieldwork for the Miner-Farmer Landscape Project. The Roman quarries lie less than 300m due west of the fort, and about 40m higher up on the slopes of Great Heaplaw, where they form a series of broad terraces along the sandstone beds (NY 691 486). Now largely submerged beneath boggy grassland that has spilt over from the higher slopes, these quarries are very different in appearance from the more sharply defined and concentrated patterns of pits, shafts and spoil heaps, particularly to the south-west, which were evidently created by much later quarrying, coal mining and lead prospection.

The excavation trench revealed the full raft of foundation stones across the wall line. Seven courses of the interior facing still stood, complete with a slight inward step above the second course, rising to about 5 feet (1.52m). The north face was found to be robbed above foundation level, but sufficient remained to suggest that the main body of the wall had been about 5.5 feet (1.67m) thick at the base, narrowing slightly above the second course (Shaw 1959, 197). The bank covering the remains of this wall, approximately 4m in width and up to 1m high, continues along the entire length of the

north west side, where both the shape and the consistent magnetic signature (revealed by the geophysical survey) points to the existence of similar remains to those exposed by Shaw. The comparable bank along the south-west arm is somewhat narrower and has a sharper profile, suggesting more extensive robbing along the outer face. To the south-east, between the south corner and the southern entrance, the evidence for the fort wall is similar, albeit with more signs of damage along the inner side. To the east of this entrance and around the eastern corner of the fort stone robbing has evidently been more extensive still, leaving few visible traces and little in the way of a geophysical signature. The northern half of the north-east wall, in contrast, is marked by a very pronounced bank which is wider than anywhere else around the perimeter. This may be no more than a product of inward collapse, although the earthwork and geophysical plots could indicate the robbed outline of a narrow rectangular structure set against the inner face of the wall (7) which, given its location on the down-slope side of the fort, bears a remarkable similarity to the position of the latrines at Housesteads (Crow 1995, 42). Other scars across the wall and north eastern defences, although doubtless enhanced by modern erosion, might have begun with the retrieval of useful stonework, or pipework, related to a series of drains. A further curious aspect of this section of bank is the occurrence of five small mounds along the base of the outer scarp, which suggest a very particular process of demolition at intervals of 3-4m. The spacing could imply the removal of buttresses or pilasters, but these are not usual features of Roman fort walls, and might only be explained had this particular section been strengthened to prevent collapse. The internal clay rampart noted in Shaw's excavation can only be seen on the surface clearly within the southern corner of the fort wall, where it forms broad trailing slope measuring up to 5m across and with a fall of between 0.5m and 1.2m.



Figure 14. The north-west fort wall and ramparts exposed in the 1957-8 excavations (Shaw 1959, Plate 27 reproduced courtesy of Society of Antiquaries of Newcastle upon Tyne).

Wall towers are a characteristic feature of fort design, and the field evidence indicates that Whitley Castle possesses six, one at each corner and two on the longer arms of the fort wall. None show any indication of having projected beyond the line of the wall. The southern corner marks the highest point on the fort wall (336.7m OD) and the tower here appears to be the most complete. It is represented by a approximately circular mound of collapsed material, remarkable for the absence of quarrying scars, which is set within (and protrudes slightly above) the curvature of the wall (Figure 15). According to the geophysical signature as well as the earthworks, a considerable portion of the intact lower structure may be concealed beneath the mound of building debris. The



Figure 15. The south corner tower, viewed from the outer defences to the west.

western corner tower (335.5m OD) is marked by a similar mass, again within the return of the wall, although more material appears to have been removed and the profile has been disturbed by a later field bank (see 'C', section 4.2.1) leaving a more angular profile to the rear. The north tower (322.5m OD) has been quite extensively robbed, but it nonetheless retains some semblance of the rounded outward profile and there are indications of good structural survival above and below ground.

The last corner tower, to the east, is almost completely quarried away, no part surviving above the height (322m OD) of the adjoining traces of the wall. Thomas Sopwith's plan of the fort published in 1853 shows a small rectangular, double-celled structure set into the outer scarp at this corner, which is an elaboration of a simple rectangular feature shown on his earlier plan of about 1840 (see Figures 4 and 6). Bosanquet's suggestion (1945, 251) that this is an actual representation of a corner tower is untenable. In the first place, the depiction of this rectangular feature clearly contradicts the visible evidence that all the towers were set within rounded corners. Secondly, neither Sopwith himself, nor the authors of the works which contain his plans, mention any exposed fort stonework; indeed Hodgson, who was the first to propose the existence of round corner towers, plainly states that he could see no trace of the walls themselves (Sopwith 1833; Hodgson 1840, 74). In all likelihood Sopwith was indicating a more recent structure which was distinct from the fort itself. It may have been a small bothy, built into the slope and lined with stone quarried from the collapsed tower. Alternatively, and more probably given the amount of fire-reddened stone exposed in the larger



Figure 16. The fort viewed from the west, with the western corner tower in the centre of the photograph.

of the two robbing hollows at this point, this structure may have been a small limekiln - a predecessor, perhaps, to the main Whitlow limekiln some 350m south of the fort. Alternatively, given the distance to the limestone outcrops, it may have been a corn-drying kiln related to the post-medieval occupation of the fort, in an arrangement not unlike that noted at Housesteads (Crow 2004, 126-7). The surviving remains of the north and south corner towers, and perhaps also that to the east, each presented a curved wall to the interior of the fort. In other words these towers were essentially circular, as might be expected given the awkward angles dictated by the overall plan. It also appears that these towers were much the same size, no more than 8m in diameter - perhaps the maximum that could be accommodated within the acute corner angles to north and south.

In addition to towers at each corner the walls were equipped with interval towers placed along the two longer sides. The interval tower along the north-west wall (8) is visible as a well-preserved, roughly rectangular mound measuring 7m x 12m x 0.4m high, located mid-way between the gate and the western corner tower, where it is crossed by a dry-stone wall. The tower along the south-east wall (9) is similarly positioned, half-way between the gate and the southern corner. Here, although the earthwork evidence is less obvious, consisting only of a low 'L'-shaped bank and amorphous platform, the magnetic survey plot shows the outline as a neat square of collapsed stone set within robbed foundations and a small compound precisely aligned with the perimeter wall. The northern interval tower is indicated by a similar magnetic anomaly, although the details are rather obscured by the proximity of the drystone wall.

There is clear evidence for four gateways, two located centrally on the shorter arms and two in matching locations on the longer arms, placed at one third of the respective distances from the north and east corners. The gate structures, doubtless major repositories of reusable stone, have suffered greatly from robbing, more so than any of the wall towers with the exception of that at the eastern corner. Very little structural evidence has survived above ground at any of the gateways, and the geophysical evidence is even less forthcoming in terms of definable buildings. The inward curvature of the wall terminals to either side of the south-east gate and to the north of the north-east

gate gives the impression that the remains of these individual gate towers slumped within the walls, adding to an overall impression that none protruded beyond the width of the rampart. The scale of the opening in the ramparts might further suggest that the most symbolically important gateway, the *porta praetoria* on the north-east, at least, was equipped with a double portal, and perhaps so too those of the *via principalis*, but none of this is certain. The *porta praetoria* does, however, retain a distinct step which (if not part of the later reuse of the gateway – see section 4.2.2) could bear comparison with the threshold, or doorstep, seen at several of the forts on Hadrian's Wall and elsewhere (Johnson 1983, 88).

To the rear of the fort, the earthwork remains of the south-west gate or *porta decumana* are the least distinct. The profiles of the south-west wall and the defences beyond (see below) demonstrate that this entrance became redundant during the fort's lifetime. When sealed, the gate might well have been maintained as a kind of interval tower; but nothing of this structure remains visible above ground and the geophysical signatures imply that there is little undisturbed survival below. This is perhaps due to the immediate proximity of several post-medieval buildings in the *retentura* (see section 4.2.2 below), construction of which may well have entailed plundering the gate towers for stone, and the occupation of which certainly involved a substantial degree of localised clearance and levelling. Modern erosion on the tracks through the north-west and south-east gates – those on the line of the *portae principalis* – has exposed considerable amounts of rubble, some of which, no doubt, originated in the collapse of these buildings. However, as suggested above, it is also quite likely that rubble has been deliberately added in later and quite modern periods in order to counter erosion on these sloping surfaces.

The outer defences

The complex, multiple ditches and other outer works are perhaps the most distinctive feature of Whitley Castle and the best-preserved section of these, to the north-west, quite naturally attracted the attention of the archaeologists in 1957-8. Shaw's excavation across these defences revealed a berm, produced as part of the levelling of the spur, which extended about 7 feet (2.1m) beyond the foot of the fort wall, where it was doubtless necessary to prevent the rampart from subsiding under its own weight into the flanking ditch (Shaw 1959, 198 and Figure 2, see Figures 7 and 43 in this report). On the surface, the berm can be traced around the majority of the wall, varying between 1m and 1.5m in width, apart from a short section from the east corner to the south-east gate where it has been heavily disturbed by later activity.

Shaw's trench exposed all four ditches and banks on the north-west side of the fort, but whereas the present analysis of their overall pattern has revealed a probable sequence of development (see Figure 19 and below), his examination of this particular section prompted the suggestion that all four were either all built as a single scheme, or that the inner ditch and berm might have come first with the others 'added from later necessity'. The excavation did reveal, however, an entirely straightforward construction technique: the ditches dug into the subsoil of the hillside, and the upcast formed into banks along each down-slope side in order to enhance their depth (see Figure 8). There was no evidence for 'punic' profiles (the angles of the sides being about equal), nor for the narrow 'ankle-breakers' or 'cleaning slots' occasionally found along the bases of other fort ditches (Shaw 1959, 197-8; Jones 1975, 36, 106-9).



Figure 17. View northwards from the fort wall across the north-western defences. Shaw's excavation lay on the far side of the dry-stone wall.

The pattern of four ditches stops on the western side of the north-east gate, where the outer two show particularly well as magnetic signatures, presumably on account of a concentration of occupation debris in the fill. Beyond the gate, the inner ditch and first bank can be traced to the north corner of the fort (where they have been infilled and obscured) and from there along the north-east arm. Enough survives of the second ditch to indicate that this too continued around the corner, and that the bath house revealed in 1810 (10) was built over its line. It is less clear from the earthworks whether the outer two lines of defence also extended around this corner before the bath house was constructed. This, however, is clarified by the geophysical (magnetic) survey which leaves no doubt that all four ditches continued around to the north-eastern arm of the fort, and therefore that the three outer ditches must have been infilled to create the building platform (Hale 2009, 14 and Figure 44 and 45). The outer scarp of the bath house platform retains something of the curvature of the defences and may have been determined by the position of the fourth and final bank.

Ploughing, in the form of broad ridge and furrow, has subsequently torn away much of the profile of the outer defences along the north-eastern side of the fort. To the north of the north-east gate, however, the three inner ditches remain perfectly visible extending from the disturbed area at the apex of the north corner, and traces of the fourth are visible on the magnetic plot. To the south of this gate the picture is less clear. Two ditches, their positions visible as earthworks and as geophysical anomalies, certainly

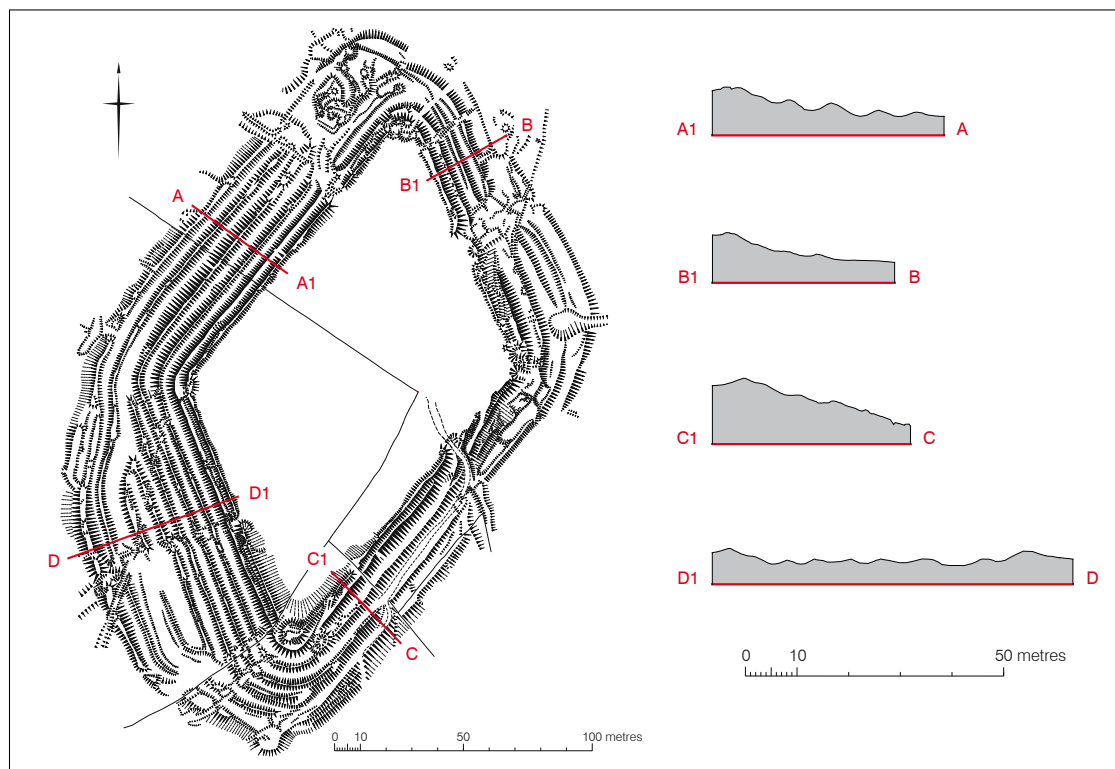


Figure 18. Profiles of the defences on each of the four sides of the fort.

continued to the eastern corner. The third seems probable but the fourth is far less certain. A slight outward scarp, much degraded and spread by the plough, hints at the marking out of space for the fourth ditch, but the absence of a geophysical signature implies either that it was never properly dug, or that it has been almost completely destroyed by subsequent ploughing.

The south-eastern arm of the fort has two well-defined lines of defence throughout, and a third and outermost line along part of its length. Although later activities have obscured the details to the east of the south-east gateway, it is clear that the inner two ditches continue around the eastern corner from the north-eastern arm and then flatten into broad steps or terraces which make best use of the severity of the slope on this side of the knoll. There are faint indications in the earthworks and in the magnetic survey results to suggest that the third ditch may also have continued around this corner as far as the gateway, but ploughing has impacted heavily in this area and the evidence is far from conclusive. The defences are better preserved to the south of the south-east gate (see Figure 18), where the rising height of the knoll clearly allowed or dictated the addition of a third terrace of similar width. The two upper terraces each acquire quite prominent rim-like banks towards the southern corner of the fort, perhaps in response to the lessening slope around the back of the spur, but more probably as a means to integrate the terraces with the ditched and embanked defences along the south-western arm of the fort.

The south-western side of the fort is undoubtedly the most impressive in terms of the number of defences, culminating in a total of seven lines of ditches with outer banks

(hereafter termed 'ramparts' for ease of description), with slight traces of a partial, incomplete eighth rampart. The geophysical survey plots, with one significant exception at the southern corner (to which we shall return later), do little more than mirror the information derived from the earthwork survey, upon which the following description is largely based.

Beginning closest to the fort wall, the innermost line (the first rampart **I**) conforms to the spacing seen on the adjacent two sides of the fort, and appears to be a substantially unmodified element of the original design. It is possible that the second rampart on this side also continued uninterrupted from the north-western arm, and that the noticeable narrowing of the inner defences on this side is nothing more than an indication that less effort was required here, on level ground, to achieve an acceptable balance of scarp and counterscarp. The curious inward angle of the second bank at the western corner, however, suggests a far more complex history of construction and reconstruction. It implies that the second rampart on the south-western side originally maintained the same broad spacing here as it does along the north-western arm (see Figure 19, Phase 1). In this layout the second bank along the south-western arm may have followed a line very similar to that which is now marked by the second ditch on this side. It appears that this original second bank may have been split in two, creating two new ramparts (Figure 43, **Ila** and **Ilb**) more closely spaced than those along the adjacent side.

Shaw concluded that there was little difference in form between the ramparts on the north-western side of the fort except for a low revetment revealed along the outer edge of the second bank, which included a 'chamfered string course stone well-weathered in antiquity' (Shaw 1959, 198). Such a feature implies a need to stabilise the second rampart, perhaps, whilst the third was being constructed, in which case the third rampart may represent a second phase in the development of the defences. This third rampart can, however, only be traced in a fully developed form around the north-west, north-east and (to a lesser extent) south-east sides of the fort (see Figure 19, Phase 2). The earthworks which lie approximately in the right location for its continuation along the south-western side of the fort are later, only partly-completed features which, in the absence of any geophysical evidence for an underlying ditch or a spread bank, appear to have been built from scratch rather than reduced from an earlier earthwork. The outward extension of the third rampart along the south-western side of the fort appears to be a subsequent and potentially much later development - a significant departure from the established pattern of parallel defensive lines - which, together with other elements of this third phase of expansion (Figure 19 Phase 3a-3d)), was abandoned long before completion, as discussed further below. From the western corner of the fort the third rampart (**III**) matches the curvature of the inner defences for about 10m around to the south-western arm, perhaps indicating the position of the original terminal. From this point the rampart deviates to the south and continues in a less massive and rather erratic form, sweeping outward to define a pronounced bulge, 15m wide and 110m long, before curving inwards to rejoin the inner defences at the south corner. The relationship between this outwork and the remodelling of the second rampart (**Ila** and **Ilb** described above) is far from certain, but it is quite possible that this alteration took place within the extension (Figure 19, Phase 3b) at much the same time that an attempt was made to infill the remaining space with the reverse 'D' formation of banks and ditches (Figure 19, Phase 3c; Figure 43, ramparts **Ilc** and **Ild**).

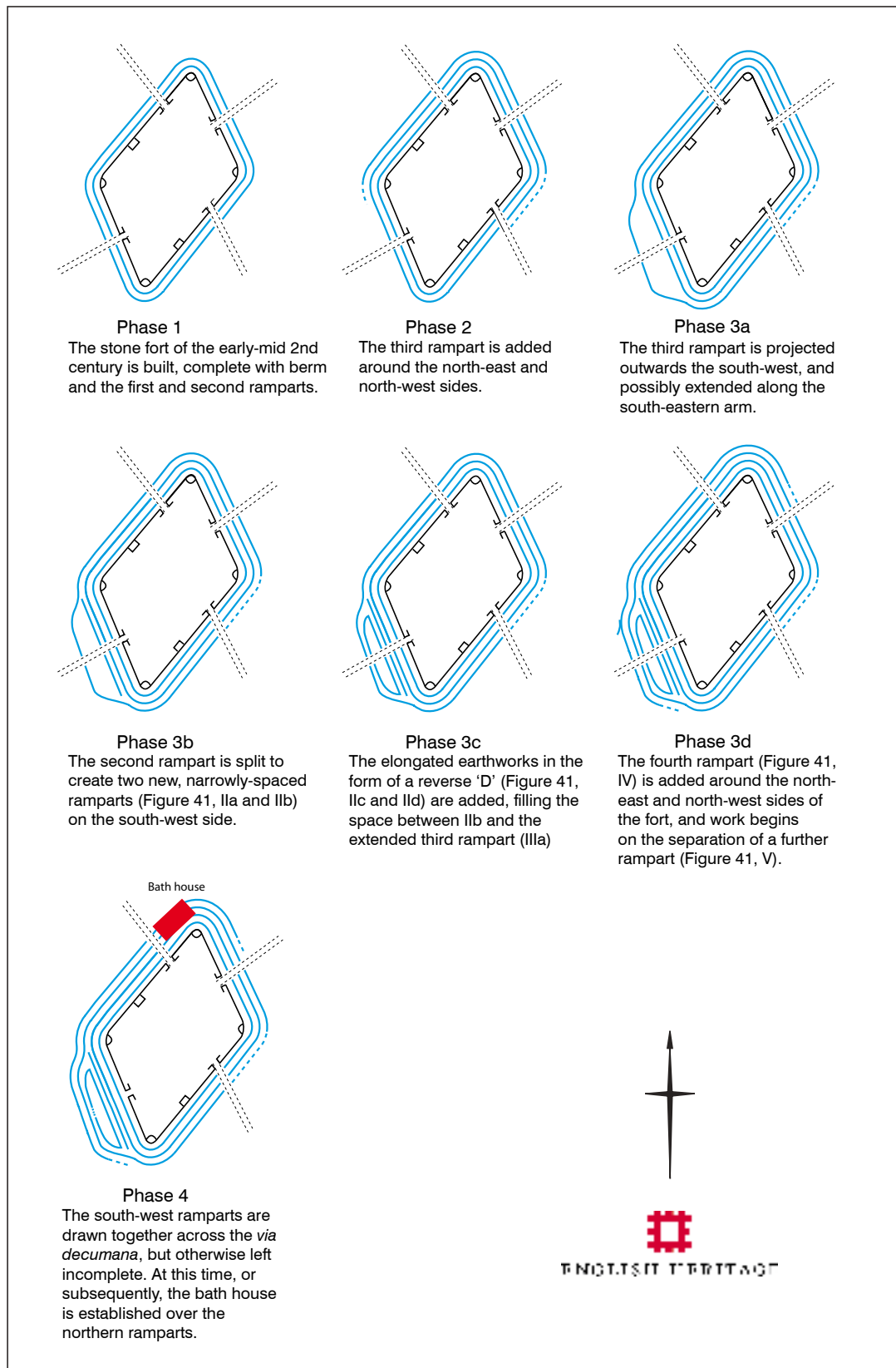


Figure 19. Reconstruction of the sequence of rampart (ditch and outer bank) development at Whitley Castle, based on present evidence. Note that Phase 3 consists of a sequence of contemporary or near-contemporary elaborations, many of which appear to have been abandoned before completion.

The fourth rampart (IV) follows closely around the third rampart except on the south-eastern side of the fort and hence, from its position and inconsistent construction, must also comprise part of that incomplete third phase in the development of the defences (Figure 19, Phase 3d). This brought the number of ramparts within and around this south-western extension to seven, and traces of excavation along its outer edge, close to the western corner, suggest a barely realised intention to add an eighth: rampart V on this side.

The junction of the complicated south-western defences and the simple three terraces along the south-east side of the fort is rather obscured by a drystone wall and a deeply incised vehicle track near the fort's southern corner. Nevertheless, it can be stated with some confidence that the first and second ramparts from the south-west arm (I and IIa) were joined seamlessly with the first two on the south-east arm (I and II) at this corner; that the third (IIb) was carried onto the corner and terminated by converging with the bank from Rampart II, and that the extended third rampart on the south-west side (IIIa) also reached around the corner, where it may have connected to the third rampart (III) on the south-east side. The return of the fourth rampart is more problematic, coinciding as it does both with these later intrusions and with a particularly intractable area of bog.



Figure 20. View southwards along the south-west wall and outer defences (see also frontispiece).

The geophysical (magnetic) survey detected a striking series of anomalies at this southern corner of the defences (Figures 44, 45 and 47). The most prominent of these are two parallel strands of highly magnetic material aligned across the outer edge of the corner from east to west (at **II** on the earthwork plan, Figure 43). The northern strand bears a precise similarity to the terminal of the third rampart bank (**IIIa**), and must be the same feature. The southern strand is partly overlain by a narrow bank of a later period and barely visible on the surface, but it can hardly be other than the spread remains of the fourth rampart bank. The difficulty with these anomalies, however, is that neither appears simply to terminate at the corner where the earthwork evidence and the topography suggest that they should. Both seem to change angle slightly before descending to the base of the knoll, turning sharply to the north east, and re-ascending the slope in a diagonal fashion. It has been suggested that these anomalies reflect a short fifth side to the fort's outermost defences, and perhaps even that their peculiar course defined a bulge around a further corner tower (Hale 2009, 16); but these theories cannot be sustained in the face of the local topography, which would place the notional tower at the foot of the knoll, some 10m lower than the fort wall. A better explanation may be found in the suggestion that another extra-mural bath house, perhaps a precursor to that on the north-west side, lay just outside the southern corner of the fort until it was swept away when these defences were extended (see Section 4.1.1 Extra-mural settlement to the south and west), although it is doubtful that a definitive answer will be found without excavation.

As mentioned above there are numerous indications that construction of the third and final phase of the ramparts was abandoned long before completion. Considering that the south-western side of the fort is the least affected by soil movement, or by later cultivation, the earthworks here are unusually fragmented and their conditions extremely varied. The first and second banks (Figure 43, ramparts **I** and **IIa**) are comparatively well-formed. However, the third bank (rampart 2b), although substantial to the north, recedes southwards in an uneven fashion to a height of less than 0.5m. The fourth and fifth banks (ramparts **IIc** and **IIId**) - respectively the long stroke and curved front of the internal 'D' - exhibit even greater variation, construction having reached quite an advanced state to the north of the road line, whilst the work to the south appears to have been abandoned when scarcely begun. Most curious of all is the profile of the fourth rampart bank (**IV**) the central section of which reaches a height of some 1.8m high and some 9m in width which is out of all proportion to its lowly profile further north and south. To the south the bank quickly subsides to ground level perhaps as a result of much later levelling and the growth of the boggy ground alongside the present drystone wall. The reduction to the north, however, appears to have resulted in part from a very deliberate, but quickly abandoned, attempt to divide the bank in two lengthways, much as had occurred between ramparts **IIa** and **IIb**, presumably with the intention of creating a fifth rampart (**V**).

There is no doubt whatsoever that the road (**6**) which issued from the south-west gate ran directly through the middle of the original defences and through the incomplete later elaborations on this side. This is obvious from the staggered alignments of the defences, most notably of ramparts **IIa**, **IIb** and **IIc**, which must originally have been drawn up to either side of a functioning roadway, and by the continuation of this road outside the final

rampart. Subsequently, however, after the elaboration of the defences was abandoned, a decision was made to close this road, and presumably also to seal the *porta decumana*. This is demonstrated by the irregular sections of ditch and bank driven across the road to complete ramparts I, and IIa-d, and the more substantial infilling of the gap in the outermost (IV) bank (Figure 19, Phase 4). This latter bank contains some large stone blocks which hint at the intention to build a structure here, perhaps some form of outer gate, which might also account for the rising mass of the earthwork converging at this point.

4.1.3 Interior Structures

Although the interior of the fort has been subjected to stone robbing, and some parts have been disturbed by later structures, there appears to have been no wholesale clearance for either later cultivation or settlement within the walls. As a consequence the earthworks - wall lines visible as low mounds or as trenches dug to retrieve useable stone, and building areas defined by terraces and concentrations of collapsed material - provide a clear impression of the layout, one which is further refined by the results of the resistance and magnetic surveys. The plan retrieved by these means, inevitably dominated by the later phases of construction, is one that largely conforms with the typical arrangements found within stone forts of the Hadrianic and later periods. In this respect it follows the usual deployment of buildings in relation to the axial roads: the *via praetoria* entering at the front gate to the east, the *via principalis* running between the north and south gates, and the *via decumana* extending westwards to the rear gate (Figure 21).

The interior slopes gently downwards from west to east, with a more marked drop to the east of the *via principalis*. The view from the air captured in 1971 (see Figure 10) emphasises this break in slope and, together with the varied appearance of the ramparts, led Frere and St Joseph (1983, 119) to suggest that the fort was once smaller and more square, with a north-eastern arm underlying the later road. However, it has now been demonstrated that there is no break in the continuity of the ramparts to either side of the *via principalis*, other than that which results from the damaging effects of post-Roman activities, and neither the earlier geophysical survey nor the more recent studies have detected any trace of an earlier rampart on this alignment (Noel 2006, 4; Hale 2009, 12; and Figures 9, 44-47). Frere and St Joseph's suggestion that the bath house (10) once lay some distance outside the northern corner of what they proposed had once been a smaller fort, is similarly refuted by the compelling earthwork and geophysical evidence that it overlies the levelled courses of all four ramparts surrounding this corner of the fort. The distinct drop to the east of the *via principalis* is simply the formalisation of a natural slope or step, enhanced by the laying out of the road itself, and by the creation of terraces for buildings below.

The Headquarters

At the very centre of the fort, the outline of the headquarters building, or *principia*, is remarkably clear (12). A combination of collapsed rubble, extant wall lines and robbing hollows, visible as both earthworks and geophysical anomalies, indicates that this was a very substantial stone structure. The building's overall dimensions are approximately



Figure 21. Conjectural plan of the fort interior in its final form, based on the earthwork and geophysical surveys.

26m by 22m, well within the range of comparable excavated examples (Johnson 1983 104-32). The front of the range faced on to the *via principalis* and the entrance, directly in line with the *via praetoria* and the front gate, may have been approached by a short flight of steps made necessary by the rising ground, or through a small porch, both possibilities suggested by the low rectangular platform outside the doorway. The entrance led to a clear open area, at least 15m across, in the front part of the headquarters. This is a recognisable element, commonly a roofed arcade around at least three sides of a courtyard, which left the centre open to the sky (Bennett 1985, 21). The earthworks indicate the presence of a cross-hall or *basilica* - the setting for the ceremonial, religious, administrative and judicial functions at the heart of the fort – in the form of a chamber approximately 6m wide, which spanned the full width across the

rear of the courtyard. Bisected by a drystone wall, and subjected to considerable stone-robbing, the evidence nonetheless reflects a substantial hall, built to impress. The walls appear to have been about 1m thick, potentially capable of supporting an upper storey, perhaps higher than all the other buildings within the fort, as suggested at South Shields and elsewhere (Johnson 1983, 109-110). A small but prominent platform within the north western corner of this chamber might be nothing more than a by-product of wall-robbing, but its position is similar to that of the dais, or *tribunal*, invariably placed to the right of the entrance, from which the commander might issue orders and address various military and civilian audiences (Bennett 1985, 22).

A 19m long, grid-like line of earthworks at the back of the *basilica* represent four of the usual five chambers found in a line along the rear range of headquarters buildings; the fifth, to the north, having been quite thoroughly obscured by later quarrying. These rooms, largely preserved as upstanding wall lines with sunken or excavated interiors, each measure about 5m from front to back, and between 3m and 5m across. The central room is the largest of these, which no doubt befitted its symbolic status as the garrison's military shrine, the repository for the unit's standards and for cult objects dedicated to the emperor and other, local, deities. Here, as at other forts, the shrine (*sacellum* or *aedes*) may have been partially concealed from the *basilica* by a stone façade or screen. Placed on the longitudinal axis through the headquarters, and therefore potentially open to view through the open doorways of the *basilica* and courtyard, it would have provided the main focus of the building (Johnson 1983, 111; Bidwell 1997, 67-8). The chambers to the north and south of the *aedes* are normally interpreted as foci of regimental administration, typically offices for the clerks and for the standard bearers (*signiferi*) who acted as paymasters, and perhaps a store room for weapons in less frequent use. The rear range may also have normally housed the fort's strong-room or treasury, either inserted beneath the shrine or within an adjacent chamber (Johnson 1983, 113-9; Bidwell 1997, 70; Crow 2004, 51). Whitley Castle's treasury cannot be identified on the basis of present information, although there is a curious annex, 6m by 4m, attached to the southern end of the rear range, connected by a hollow, perhaps a sunken passageway (with steps), and containing the identifiable remains of a collapsed barrel vault (13). An alternative explanation of this feature might be that it served as a stoke-hole or furnace room, possibly indicating, as elsewhere, the addition of a hypocaust to the headquarters in the later 2nd or 3rd century (Johnson 1983, 132). This, however, seems unlikely in the absence of any significant anomalies in the magnetic geophysical survey, which are invariably produced by intense burning. The evidence is not entirely clear, but this vault may have lain within the southern part of a longer extension superimposed over part of the *via quintana* at the rear of the headquarters range, which appears to have continued beyond the northern corner of the building by approximately 5m and perhaps included a small annex attached to the western end of the north wall (14). This may have been joined to an irregular series of later buildings at the rear of the granary (see below), but the conflicting alignments suggest that the headquarters' extension was a later imposition. This extension was substantially-built, to judge from the size of the wall mounds, the size of the robbing trenches and the strength of the geophysical signatures. It would have completely blocked the passageway between the headquarters and the granary, one of the more usual links between the *viae principalis* and *quintana*, unless part or all of the earlier buildings behind the granary had been removed.

The Commandant's House

The remains of a courtyard building, perhaps the commanding officer's house, or *praetorium*, lie immediately to the south of the headquarters, on the left hand side when viewed along their shared frontage on the *via principalis*. The footprint of this building has been quite severely disrupted by the construction and demolition of a post-medieval building and the area doubtless suffered considerable erosion during that later period of occupation (see Section 4.2.2, features **G** and **H**). As a result, the earlier earthworks are rather slight, but they are still sufficient to identify two incomplete building ranges that meet at the western corner of a courtyard (**I5**). The north-western arm is approximately 5m wide and no more than 35m long, and appears from the geophysical (magnetic) evidence to have been subdivided into a number of regular compartments. The length of the south-west arm will depend on the unknown width of the intervallum road at the foot of the rampart, but it is unlikely to have exceeded 30m. This arm retains evidence of some additional complexity in the form of an inset opening, or a pair of protruding rooms, facing on to the *via quintana* – possibly a significant addition, not unlike the inclusion of bath houses at the commander's houses at Mumrills on the Antonine Wall and at South Shields (Johnson 1983, 134-5; Bidwell 1997, 57-8). However, although there is a concentration of magnetic material in this area (mostly concentrated in the wall lines of the later building) there is no conclusive evidence for a stoke hole or furnace. The remaining two arms, alongside the rampart and the *via principalis*, are no longer visible, and the foundations, if they survive at all, are indistinguishable in the geophysical surveys due to the extent of later disturbance in this area. It is worth noting, however, that the projected position of the north-eastern arm, close to the corner of the drystone wall, overlies an intermittent spring. This now flows eastwards across the surface of the lower terraces at the front of the fort, but might have originated as part of this building's water supply or drainage system.

The Granary

Roman military granaries have distinctive plans. They were normally rectangular with solid masonry walls braced with buttresses to withstand the spreading weight of the grain, and with raised floors to control the temperature, allow air to circulate, and prevent damp. In the majority of cases single or paired granaries were placed along the *via principalis* close to one of the gates, presumably to simplify the regular movement of supplies (Johnson 1983, 142-57; Bennett 1985, 23). This certainly seems to be the case at Whitley Castle, where Shaw's excavations revealed evidence for just such a building (**I6**) between the *principia* and the north west gate (Shaw 1959, 194). The short exposed section of this building's foundation revealed no buttresses, but the quality of the foundations together with the presence of internal recesses and sleeper walls for the suspended floor left Shaw in no doubt about its function (ibid, and see Figure 22).

The north wall, exposed in Shaw's trench, was located about 12m (38 feet) inside the perimeter wall, and ran more or less perpendicular to the *via principalis*. Given the available space between this wall and the north side of the headquarters (approximately 22m), and allowing for a narrow intervening road, more than one granary in this location would seem unlikely, although a double-width building of the sort seen at Hardknott in Cumbria or Saalburg near Frankfurt (Johnson 1983, 144-7) could have

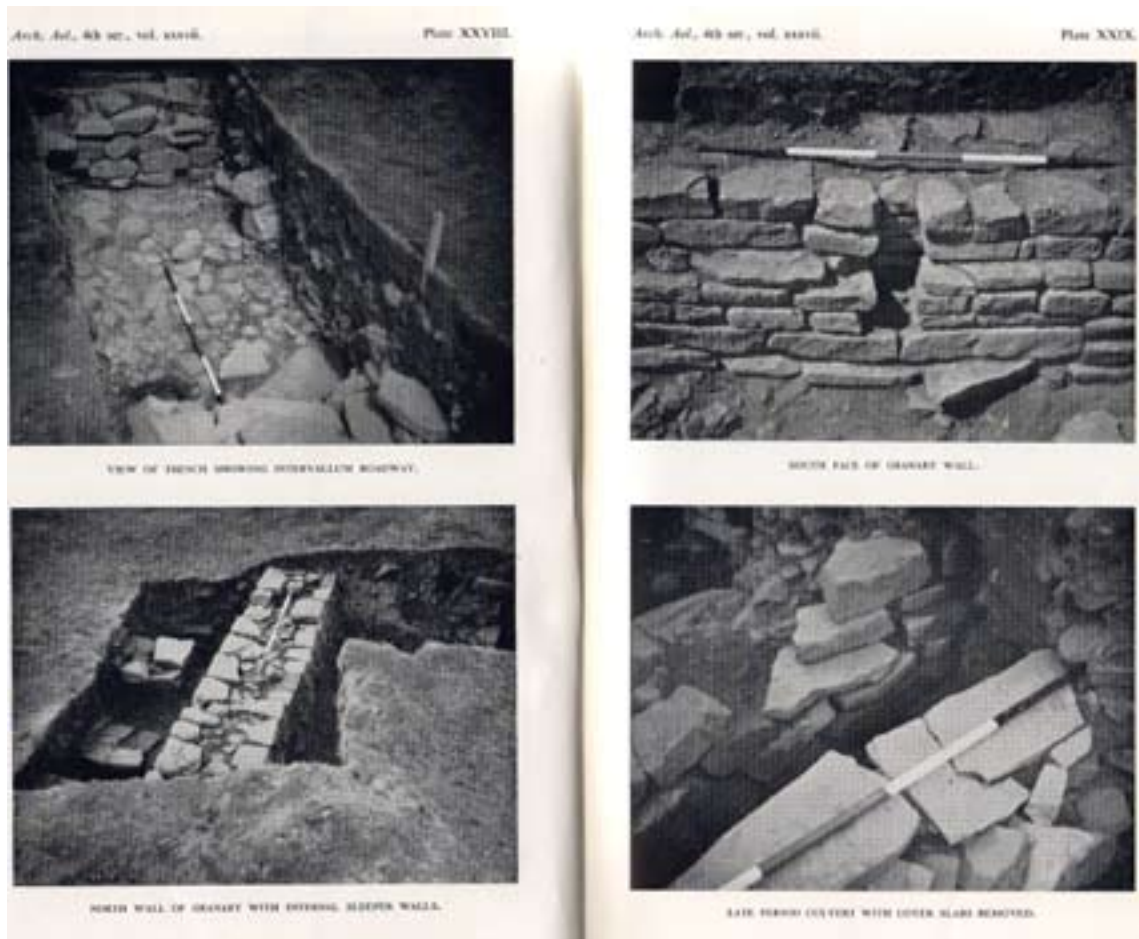


Figure 22. The intervallum road surface and the north wall of the granary exposed in the 1957 excavations (Shaw 1959, plate 28). Reproduced by permission of the Society of Antiquaries of Newcastle upon Tyne.

been accommodated. The ground in the area of the granary has been significantly altered, perhaps through the reclamation of good quality building stone and, as Shaw observed, the buried structural remains are masked by an overburden of mixed soil and rubble reaching depths of 0.7m (2 feet, six inches) or more (Shaw 1959, 195). However, although there is scant evidence of Shaw's building visible on the surface, the geophysical (magnetic) results are more informative. These indicate the outline of a single building, some 10m in width, extending back from the side of the road (allowing perhaps for a little working area at the doorway) on an alignment that fits tolerably well with the foundations revealed in 1957 (Hale 2009, 13; and Figures 44, 45 and 47). Although it is far less pronounced, there is some evidence for a third, equidistant and parallel wall closer to the headquarters, which could represent either a separate building phase, or the double-width granary unit postulated above. British granaries rarely exceed 30m in length (Johnson 1983, 144), and a sharp depression (and strong anomaly) broadly in line with the rear of the headquarters building suggests that the Whitley Castle example was no exception.

Shaw (1959, 194) believed that this building belonged to a final period of military occupation in the 4th century. However, as mentioned above (section 3) the stratigraphic relationship between the granary foundations and a roughly-dated layer of raised ground

which was recorded abutting them on the north side (see Figure 7) contradicts this view, and places the granary in the preceding century.

Buildings to the rear of the granary

The area immediately to the rear of the headquarters building and the granary, although rich in relatively minor earthworks and dense geophysical signatures, is perhaps one of the most difficult to associate with any known pattern of Roman buildings. Typically, this area might be expected to contain either a row of stores and workshops facing onto the *via quintana* or, if the granary was quite short, a small courtyard building of the kind identified elsewhere as further workshops or the garrison hospital (Johnson 1983, 157-64, 183-6, Bidwell 1997, 71). Depending on the precise length of the granary, which remains unknown, either possibility could be accommodated by the fragmentary arrangement of shallow earthworks: a variety of narrow channels and slight scarps which suggest individual rooms, perhaps set within a single building measuring at least 10m square (17). It is further possible that a narrow terraced way carried the *via quintana* around the western corner of this building on route to the northern interval tower (8). However, these are unlikely to represent remains of a single building phase, and the pattern here may incorporate elements of an earlier barrack block (see 21 below) and reflect considerable disruption associated with the construction of the apparent annexes attached to the headquarters building and imposed on the *via quintana*, as mentioned above.

Barracks in the *retentura*

The rear portion of the fort, the *retentura*, is the most elevated and level part of the interior. On the strength of both the earthwork and geophysical evidence this area appears to have contained up to six rectangular blocks, presumably barracks, three to either side of the *via decumana*, all orientated broadly, but not precisely, parallel with the south western rampart (18 - 23). The surface remains to the south of this road are defined primarily by narrow platforms of collapsed buildings and intervening hollows. The eastern-most block to the south of the *via decumana* (18) lies directly alongside the *via quintana*. It measures approximately 34m in length and some 8m across, and retains a low mound of wall material forming a longitudinal partition. The southern end of this block lies beyond the present field wall and is less clearly defined, although it appears to terminate about 2.5m short of the interval tower. A small cell-like feature overlying the *via decumana* at the northern end of this block is presumably a later extension, one which may have been added after the *porta decumana* was closed and the road no longer issued from the fort. The outline of the middle block (19) is more thoroughly disrupted by stone robbing and with mounds of associated upcast, but the general area of raised ground indicates a building of similar width and length and offset by approximately 3m toward the rampart. The magnetic survey (Hale 2009, 15; and Figures 44, 45 and 47 in this report) shows that both of these blocks retain details of internal features, with some suggestions throughout of the subdivision of barrack rooms (*contubernia*) and even for the separation of areas for sleeping (*papilio*) and storage (*arma*). There is even a slight suggestion that larger rooms, presumably those occupied by officers, lay in the usual position towards the perimeter road, although this is far from certain given the imposition of the later drystone wall. The block alongside the south west rampart (20)

is the least visible of the three, obscured by the robbed foundation lines of a much later, post-medieval building (see Section 4.2.2, Feature **E**) and flattened by associated yards and other features which also extend to affect the middle block in this range, albeit to a lesser extent. However, given the few clues which survive, and the limitations of the available space, this block is likely to have been precisely similar in size and orientation.

The identification of individual barracks within the range to the north of the *via decumana* is rather more problematic. The pattern of scarps and mounds provides an overall impression of three similar parallel buildings, each approximately 35-40m in length and 8-12m wide, and this is echoed in the geophysical results from 2003 and 2009, but the details are far from clear, perhaps due to rebuilding within the Roman period, and certainly as a result of later, post-Roman activities. The 2009 magnetic survey shows these three blocks orientated similarly, but not identically, with those to the south of the *via decumana*. The central building on this side (**22**) is the most clearly defined in the earthworks. It appears to be about 12m wide and 40m long, and both superficial indications and geophysical anomalies reflect the division of individual *contubernium* along much of its length, and a more complex division of rooms at the northern end. To judge from its overall width and complexity, however, this block may be comprised of partly overlapping buildings of more than one phase. The two flanking blocks are less distinct. The easternmost block (**21**) emerges quite clearly from the 2009 magnetic survey, although most of the earthworks in the central and southern part of this range have been levelled for a yard or cultivated plot, probably during the post-medieval occupation of the fort (described in Section 4.2.2, below), leaving only the raised edges around the angle of the *viae quintana* and *decumana* to indicate its maximum extent. This building appears to have been in the order of 9m wide and 35m long. Again the earthwork details are best preserved at the northern end, close to the rampart, where the end room is clearly defined by narrow mounds and shallow scarps, separated from the buildings to the rear of the granary by the terraced path of the *via quintana* threading its way to the north interval tower. As in the group to the south, the western building (**23**), is the least visible of the three in this northern quarter. Its dimensions are defined more by bulk of the platform and the limitations of the available space than by precise evidence for the positions of individual wall lines. The more dominant features in this area relate to the existence and demolition of a further post-medieval range (see Section 4.2.2, **F** below) which over-lay the central and southern parts of the barrack block. However, sufficient evidence survives to imply that this building originally stood, or was rebuilt, closer to the rampart than that suggested by the geophysical results, and was slightly foreshortened to account for the base of the corner tower.

The various orientations of the long axes of the barrack blocks in the *retentura* receive further consideration in the discussion toward the end of this report. In brief, however, it would appear that the general conformity was to the orientation of the principal buildings of the *lateria praetorii*. In other words, the alignment of the *retentura* barracks followed the same compromise as that embodied by the headquarters building – striking a balance between an ideal layout and the reality presented by the fort's pragmatic plan.

Barracks in the *praetentura*

The profile of the knoll falls away across the front part of the fort in an overall drop of about 5m between the *via principalis* and the north west rampart, which required two bench-like terraces to make best use of the front portion of the fort (*praetentura*). The terraces are bisected by the *via praetoria* where it rises steeply from the west gate, creating four separate platforms aligned precisely with the short axis of the fort. Earthwork and geophysical evidence points to the existence of a single long building on each platform (24 – 27), most probably further barrack blocks, albeit of slightly larger proportions than those of the *retentura*.

The platforms on the upper terrace, adjacent to the *via principalis*, each measure about 40m in length and 15m in width. The earthwork evidence, again comprised of concentrations of collapsed material, robbing trenches and some low, turf-covered foundations, indicates a pair of buildings (24 and 25) each measuring approximately 11m by 35m, a picture which is echoed in the geophysical (magnetic) results. Although many of the superficial earthworks reflect quite random episodes of quarrying, there are also indications above ground (particularly across the northern part of 25) of internal subdivisions, and the geophysical evidence suggests that these *contubernia* were slightly broader, perhaps 11m or 12m in width, compared with the *circa* 10m-wide barrack blocks to the rear of the fort.

The two lower platforms adjacent to the north-east wall have been more thoroughly disturbed by robbing and by the erosion of several tracks across the eastern corner of the fort. The northern platform (26) retains some indications, both superficial and geophysical, of a building of similar size to those on the terrace above, perhaps slightly foreshortened to allow access around the base of the northern corner tower. Disturbance within the footprint of this building is more intense towards the northern end, perhaps reflecting the greater quality or quantity of stone which could be reclaimed, and therefore something of the building's hierarchical division. Significant quarry scars between this building and the fort wall may point to the removal of material from another substantial structure, perhaps the latrine (7) postulated above. Details of the building on the southern platform (27) are particularly sparse but, allowing for soil slippage from the platform above, there was certainly room for a matching block, and the rather amorphous pattern of internal rooms visible in the geophysical (magnetic) results clearly shows that such a building stood in this location.

4.1.4 Extra-mural activity

The earthwork survey and the 2009 geophysical survey encompassed a broad swathe of land surrounding the fort, adding to the information previously captured by more limited geophysical prospection in 2006, in order to better understand both the setting of the fort during the period of occupation, and the evidence for subsequent processes of change and adaptation. The area investigated by these combined means extends for 100m or more in every direction beyond the fort's defence works, covering a total area of slightly over 19 hectares. A further 16 hectares was investigated by magnetic survey alone, mostly to the south and west of the fort (Hale 2009, Figure 2), but this work will be supplemented in due course by rapid recording of the earthworks as part

of the Miner-Farmer Landscapes project. Features which are considered relevant to the Roman military occupation are described here. Activities related to later periods are discussed in following sections.

The bath house

The published accounts of the discovery of the bath house and the plans of the fort made shortly afterwards (see Figures 4 & 6) leave no doubt that this was the building (10) located just outside and to the north of the north gate (Hodgson 1818, 108; 1840, 74; Sopwith 1833, 39), overlying the infilled and levelled segment of the outer defences as mentioned above. These reports do not relate the circumstances leading to the excavation; indeed the original diggings, prior to the Rev Hodgson's involvement, may have been prompted by the availability of re-useable stone within a prominent earthwork rather than by antiquarian curiosity.

Hodgson's accounts, although informative, do not include details of the building's plan, but a degree of reconstruction is possible based on the visible earthworks – the hollows which represent the excavated rooms, and the trenches dug to chase the perimeter walls – as well as from the geophysical survey results. The bath house appears to have been broadly rectangular in plan, measuring about 15m in width and at least 30m on the axis parallel to the fort wall. Earthwork banks to the north-west and around the north corner (where parts of an exposed curving wall can be seen) may define a compound around it. It lies immediately on the north side of the road leading to the north-west gate; and a slight curving terrace visible as a low earthwork may mark the remains of an access way between the two. The position of the furnace room and the stokehole can be estimated from the residual deposits of dark, carbon-rich soil, which seems to have been dug away, perhaps in Hodgson's day, leaving a broad 'banana-shaped' hollow carved through the outer scarp into the centre of the building platform. The furnace would have been directly adjacent to the hottest room in the complex – the *caldarium* – which can still be identified from the characteristic apsidal wall visible as an earthwork protruding from northern side of the building outline toward the western end. The square, south-western end of the complex probably housed the warm room, or *tepidarium*, and, if Whitley followed the common pattern of fort bath-houses as found at Bewcastle, Netherby, Chesters and Carrawburgh (and in a mirror image at Benwell) the other rooms – the cold room (*frigidarium*) with its plunge bath, the changing areas, service rooms and latrine – are all likely to have been arranged along the long side of the building opposite the stoke hole, where the geophysical evidence suggests a corridor-like range broadly parallel to the fort wall (Johnson 1983, 220-1; Gillam 1955, 264). On a practical note, the latrine would most probably have stood at the northern end of this range, to facilitate drainage.

When the bath house stood exposed in 1810, Hodgson noted that 'many pillars of the hypocaust were standing, covered by large thin slabs of freestone, and a strong calcareous cement'. Some twenty years later, however, Sopwith wrote that many of these pillars had been removed for building materials (Hodgson 1818, 108; Sopwith 1833, 39). The hypocaust is no longer visible, having either been entirely removed (which seems unlikely given the shallow and incomplete nature of the excavations across most of the platform) or covered over. A single stone pillar, narrow and roughly finished, now

rests on its side in the base of the large excavation hollow. Neither coins nor any other form of datable evidence was recorded from the early 19th century exploration. The earthwork (and geophysical) evidence plainly shows, however, that the bath house was a comparatively late introduction in this location, established on a level platform which had been created by in-filling the three outer ditches to the east of the north west gateway. The seemingly over-enthusiastic excavation of the stoke hole may be due in part to the likelihood that the excavators did not encounter solid ground here, but rather a series of buried deposits within the profiles of the ditches. The excavation may also have been expanded in the search for midden deposits as described below. The source of water for the bath house has not been positively established by the present surveys. Frere and St Joseph (1983, 120) suggested that the sources of the water may have been the Lort Burn, and that the sinuous course of a communicating aqueduct might be traced across the intervening hillside, beginning close to the drystone wall which crosses the fort from this side; this, however, appears to be a mis-interpretation of a post-medieval bank and ditch (D – see Figure 42 and section 4.2.1). Many other slight earthworks have been recorded across this area, although none appear to have provided water to the bath house. A more probable explanation is that the supply was diverted from the stream course which runs within a natural crease in the hillside, parallel to and just below the north-west defences.

The Roman midden

The 'Roman midding' (*sic*) which was discovered and exploited by the proprietor of Castle Nook in 1825, and subsequently explored by Hodgson (1840, 78-77) lay just to the west of the bath house, exposed by the excavation of a drain alongside the north western arm of the fort. It appears to have been indicated by the letter 'A' on Sopwith's 1853 plan of the fort (see Figure 6). On the ground, this point broadly coincides with a large and very distinct hollow, with a flattened base and a cart exit to the north-east (Figure 42, 28) which has been dug into the base of the outward slope below the bath house. Other hollows in the vicinity may have had a similar purpose – cut to retrieve organic soils which provided a useful dressing for adjoining land. These include the stokehole mentioned above, and two adjacent excavations into the outer face of the bath house platform, both of which reveal comparable dark deposits which suggest that organic material and rubbish may have been a significant component of the bulk used to level the defences.

Mr Henderson's drain, the cutting of which revealed the midden, was probably intended to improve the natural water course beside the defences at the foot of the spur. This and other attempts to drain the ground to the north of the fort may have altered the saturated conditions that enabled the remarkable assemblage of shoes and other organic artefacts to survive. However, reports of further leather fragments unearthed when the drain was recut in quite recent times suggest that waterlogged conditions may yet endure (Farrer 1981).

Temples and burial grounds

The spring mentioned by Hodgson and illustrated on Sopwith's plans (marked by the letter 'b' on Figures 4 & 6) lies close to the corner of the field above the large modern

byre, and now supplies the farm through a buried metal pipe which is clearly visible on the magnetic survey plan (Hale 2009, 14, and Figure 44 in this report). To the west of this, the drainage channel, mentioned above, enters a culvert just below the bath house and continues as a channel containing a buried pipe (several sections of which were unearthed for repair at the time of the survey) leading towards the outbuildings at Castle Nook Farm.

This area around the spring, presently a large boggy hollow straddled by the drystone wall beyond the northern corner of the fort, can be identified with the discovery of two of the major items of votive stonework found at Whitley Castle. The Hercules pedestal (RIB 1199) is reported to have been found before 1810 in a swampy spot 'a little to the south east of the bath house and the north east corner of the station', and the Apollo/Mithras altar (RIB 1198) was discovered whilst draining this same area in 1837 (Weston 1813; Hodgson 1840, 76, 432; Bosanquet 1924, 254). The pedestal is said to have been found fitted to a socket stone and accompanied by the fragmented remains of a statue of Hercules, circumstances which suggest that it was discovered in, or very close to its original location. Descriptions of the recovery of the mithraic altar paint an even more convincing picture of an 'in situ' discovery: the altar dislodged but otherwise complete, the pedestal still mounted on four pillars (each one capped by a single coin) straddling a paved area, over which, it seemed, the issue of the spring once flowed (Weston 1813; Hodgson 1818, 108; 1840, 432).

The cult of Mithras, an off-shoot of Zoroastrianism with origins in Parthia and Armenia, spread across the Roman Empire in the late 1st and 2nd centuries, as its principles of sacrifice, lifelong commitment and advancement through levels of initiation found particular resonance within the upper ranks of the Roman armies (Beck 1998, 115-28). In Britain, with some notable exceptions (i.e. at London and York), the cult appears to have been mainly confined to the military frontier. Their temples were windowless and often partly sunken, designed to mimic the cave in which Mithras, god of light, sacrificed the great bull which had been formed by Ormazd at the beginning of time, and thereby spread life to all creation. They were also, as at the example at Carrawburgh on the Wall, frequently linked to a source of running water which was important for acts of ritual purification, but also brought problems of flooding (Henig 1984, 97-109). Piecing together the information from the near-contemporary accounts of the altar's discovery, the mithraeum at Whitley Castle appears to have been sited on the slope below the spring, within 100m or so of the corner of the fort. The most probable location, therefore, appears to be within the modern enclosure to the west of the byre at Castle Nook, close to where the channel widens out near the drystone wall, where there is a natural alcove into the north-west facing slope. However it has proved impossible to refine this assumption further by the present survey methods (earthwork or geophysical) given the effects of modern earth-moving and the quantity of modern farming detritus spread across this field. Nothing of archaeological interest was found by examining the various hollows which had been dug to unblock or repair the pipework in this area. One possibility, however, is that the temple lay immediately to the west of the drystone wall, about 80m north of the corner of the fort, where the location of a possible building is indicated by a distinctive terraced platform (29) measuring some 17m by 8m, set alongside and partly truncated by the modern stream. The geophysical

results are, however, quite ambivalent in this area owing to the proximity of the drain and the buried pipe from the spring, and further clarification must await more direct and substantial evidence. It is interesting to note, however, that this platform is approached by a hollow way (Tr3) from the direction of the north-west gate which is one of the more substantially-worn routes across this area of the hillside.

Such a location for the temple is rather close to the fort compared to the situation at Housesteads, where greater separation seems more in keeping with the sect's secretive tendencies; although it is precisely similar to the arrangements recorded at Rudchester and most famously at Carrawburgh (Richmond and Gillam 1951, 1-92; Bowden and Blood 1991, 28-9 & Figure 1; Crow 2004, 72). The Hercules pedestal and statue could imply another temple located in the vicinity of the spring, although Mithraism was not an exclusive religion and other deities' inscriptions and sculptures have been found in close proximity to the Mithraea at Carrawburgh, Trier, Altbachtal and London indicating the cult's tolerance for other devotions (Henig 1984, 93).

According to Hodgson's notes from 1817 (1840, 76, 432) the area where the altar and pedestal were found was known as the 'The Burial Ground', and he was told that the Rector, Mr Kirby, had 'curious stones taken from it in his possession'. There is no other record of Mr Kirby's collection, but had several of these pieces been recognisable as tombstones, this might account for the name applied to the place of their discovery. The presence of a cemetery beside a main Roman road would not be unexpected, although one positioned so close to a fort is less usual; but an association between temples and burial grounds is not uncommon (for example Crow 2004, 72), and the existence of a temple near the spring might have encouraged such a development.

Extra-mural settlement to the north of the fort

In his notes from 1817 Hodgson recorded that 'no traces of suburbs excepting the bath have been found, nor indeed are apparent, a proof that the adjoining country was thinly inhabited while this was a Roman garrison' and this view remained unchallenged for more than a century (Hodgson 1840, 76). Even those archaeologists engaged in the 1957-8 excavations appear not to have appreciated the significance of the features which lay just beyond the foot of their trench, for although Shaw's site plan shows a vague impression of scarps in the area between the fort and the Lort Burn, these are not mentioned in the report (Shaw 1959, 193, Fig. 1). In fact, though many of these earthworks are quite ephemeral, a coherent pattern can be recovered across most of this area. Farrer recorded the more pronounced elements on his incomplete 1981 plan, but the first published suggestion that this area might contain a civilian settlement or *vicus* emerged a few years later, arising from Frere and St Joseph's study of aerial photographs (1983, 118-120). It was their contention, supported by the discovery of fragments of pottery and building stone exposed by land drains across this area in the early 1980s, that led to the scheduled area being expanded northwards in 1985 (EH A10817/1). Further evidence of buildings was provided by the 2006 geophysical survey in the form of wall foundations located across two of the larger terraces (see 58 below) which had previously identified by Farrer beyond the western corner of the fort (Farrer 1981; Noel 2006, Figs 3 and 4).

The earthwork survey indicates that the area between the north-western defences and the Lort Burn contains a pattern of small enclosures, divided by scarps and linked by a complex network of minor tracks and lanes which, as discussed later (see Roman fields and tracks, below) clearly extended around the western side of the fort. On the basis of the earthwork evidence, which is amply supported by the Lidar (Light Detection and Ranging) data recorded for the Miner-Farmer landscape project in 2009 (Figure 13), the settlement remains on the side of the fort are divided into several distinct areas or zones. The northern zone consists of an orderly arrangement of three parallel rectangular plots (30, 31, 32), each about 20m in width, which extend 60-70m down the slope at right angles to the road (5) where it approaches the north-west gate. There are some indications of a further, fourth row (33), adjacent to the Lort Burn, although a combination of severe vehicle erosion and an overburden of rubble spread to improve farm access has largely obscured this area. For similar reasons it is now impossible to determine how far this pattern may have continued down the slope towards Castle Nook Farm. At first sight each row appears to be sub-divided into a pattern of smaller, grid-like plots. On closer examination, however, the broad and somewhat erratic scarps (34-38) running counter to the slope define a series of terraces. These are clearly overwritten by the scarps, banks and hollow ways that define the rows, and must therefore precede this later arrangement. The most probable explanation is that these are a series of lynchets defining fields which appeared earlier in the sequence of Roman occupation, or are pre-Roman in origin (see 'Trackways and Fields', below).

The most convincing settlement remains in this northern area are found on the north side of the stream immediately below the bath house, where adjacent terraced plots (the terraces perhaps echoing the earlier lynchets) retain small platforms and subdivisions that quite clearly signify the positions of buildings (39, 40). These plots appear to have extended across the stream towards the fort's outer defence works, where one at least (39) is partly overlain by the spread of material around the base of the bath house platform. The third plot in this row (29), is the unproven candidate for the mithraic temple mentioned above. Curiously, the resistivity survey provides little supporting evidence for structures within these plots, and the magnetic survey has produced none whatsoever. This may be due to the amount of modern disturbance surrounding the drain and spring, although extensive robbing, or the use of construction materials other than stone might have led to similar readings. More significantly, however, the geophysical surveys reveal no indications of structures within the rows further to the north, nor any strong patterns of pits and hearths which might otherwise indicate occupation. The implication is that, in the main, these long rows were not used for settlement but rather for stock management or small-scale agriculture (Hale 2009, 14).

The pattern of enclosures on the slope above and to the west of the approach to the north-west gate differs in several respects from the pattern below and to the east, most notably as a less orderly, perhaps more 'organic' development of hollow ways and minor tracks. The most prominent feature here is a broad hollow way (Tr4) which departs from a well-defined junction with the approach road and maintains a straight, perpendicular course up the slope for about 25m before dividing into two more sinuous routes (Tr5 and Tr6). The area to the north of this hollow way, before the fork, is cut across by a ditch and footings of a later field wall (D), and is heavily disturbed by modern

tracks focused on the field gate to the north. Nevertheless, it retains a substantial terrace running parallel to the approach road with traces (again invisible to geophysical survey) of an individual building platform set alongside a small sunken yard within a wider compound (41), and below this a further, lesser scarp (42) which might, with other parallel scarps (43-46), belong to the pattern of earlier lynchets (34-38) mentioned above. As to the north-east of road 5, the better-preserved building platforms here lie close to the foot of the ramparts. The square magnetic anomaly interposed on the outermost bank on the west side of the fort entrance (Figures 44, 45 and 47), may be no more than a junction of later field walls, but the adjacent plots to the north - three shallow scarps and banks extending from the southern side of the hollow way - are far more convincing as settlement features. Two of these (47 and 48) contain clear evidence of building platforms, visible on the ground, if not through the geophysical survey results, giving something of the appearance of a row of quite regular tofts, with structures set alongside the hollow way and small enclosures extending back towards the fort. Whether or not these are contemporary with the occupation of the fort remains open to question, although each plot either abuts or overlies the bank of the outermost rampart, and therefore all must post-date that phase in the fort's development. The outline of a further building (49) measuring some 9m by 7m, and accompanied by a more irregular sunken yard, can be demonstrated from the earthworks and from magnetic readings, within the angle defined by the fork in the hollow ways Tr5 and Tr6, partly overlain by the drystone wall that extends from the fort towards the curving intake boundary.

Segments of further narrow banks, parallel to one another and similarly aligned to those overlapping the defences, have been recorded at intervals of between 12m and 36m up to and beyond the western corner of the fort (50-55) suggesting the continuation of a regular arrangement of field boundaries (see Trackways and fields, below). Within these plots, on the higher slopes, lie the remains of a striking building complex (58) overlooking the fort from this side. This is most clearly visible in the geophysical patterns, those recorded in 2006 (see Figure 9) as well as those from 2009 (Figure 44, 45 & 47), although the principal terraces and other elements are also visible as well-preserved earthworks. Both sets of evidence imply a standard of construction which is notably absent from the rest of the settlement remains on this side of the fort. The complex consists of a concentration of angular ditch and wall lines representing buildings and other features, boundaries and pits, neatly contained within a rectangular area measuring about 70m in length and between 40m and 60m in width (the width dependent on the clarity of the features detected beyond the intake wall). The pattern of buried remains seen in the geophysical survey results is divided by the branch of the well-marked hollow way which ascends the slope from the fork to the north-east. The resulting terrace to the north (now given a triangular appearance by the imposition of the intake wall and other hollow ways) is the setting for a building, about 7m square, with smaller detached elements, or a fragmented range, to north and south. A similarly aligned building, possibly containing two principal rooms and measuring about 12m by 10m, lies to the south-east of the hollow way, within a complex of further wall lines, some visible as slight banks defining a compound stretching toward the fort, perhaps 30m long and 20m broad. The suggestion made following the earlier geophysical survey - that there were two sets of buildings present, one on each side of the hollow way (Noel 2006,

4) - appears to have been completely vindicated by the more recent work. Such an elaborate arrangement, linked to the northern fort road, yet set apart from the bustle of the gateway, could be interpreted a guest house (*mansio*) complete with bath house (a very strong magnetic anomaly on the north platform supports this possibility) and stables, similar to those adjacent to other forts in the region, notably Chester, Newstead and Vindolanda.

Further settlement activity has been recorded on the north-east side of the fort, to the north of the approach road outside the *porta praetoria*. The superficial evidence in this area is entirely dominated by medieval ridge and furrow ploughing and modern drainage patterns, yet beneath the surface the geophysical survey (magnetic) has revealed a rectilinear complex (59) measuring some 35m by 50m set within the angle between the ramparts and the road. The details are uncertain due to the extent of later ploughing, but there appears to be at least one small building signature, and possibly others, set with a sub-divided compound or a series of small ditched and banked enclosures (Figures 43, 44 & 47, Hale 2009, 12). Leading due north from the *porta praetoria*, a gently curving level terrace can be traced for approximately 35m before it is lost amidst the later ridge and furrow. Although this terrace was undoubtedly utilised within a post-Roman settlement set around this gateway (see J below) the geophysical evidence suggests that it began as a minor road leading into these enclosures. Further enclosures have been postulated to the east, on the basis of the magnetic survey, clustered along the far side of the Maiden Way (Hale 2009, 11). These, however, are not convincing as contemporary features, since their principle orientations relate to the ridge and furrow and later drainage, rather than the margins of the Roman road.

Extra-mural settlement to the south and west

There is clear evidence for a pattern of radiating fields and a well-defined track (both described in greater detail in the following section) extending around the western corner of the fort, but no obvious signs of the continuation of the northern settlement into this area. This may be in part due to the intractable bog within a broad hollow on the northern side of the saddle to the rear of the spur. Several field banks on this side of the fort run into this area leaving no trace on the surface and disappearing from the geophysical results, so the possibility that other features are similarly masked cannot be ignored. To the south, however, on the saddle of higher ground which connects the spur to the slopes of Whitlow Common, the geophysical (magnetic) survey has revealed the characteristic signature of further Roman settlement (60) clustered along the *via decumana* outside the defences.

The 2006 geophysical survey provided hints of settlement activity in this area (Noel 2006, 4-5, and Figure 9 in this report). The discovery of fragments of colour-coated pottery and glass vessels in mole hills to either side of the road during the earthwork survey tended to support this picture, but the 2009 geophysical survey provided the first unequivocal evidence (Hale 2009, 15; Figures 44, 46 & 47 in this report). The magnetic survey shows a very distinct pattern of linear anomalies running parallel and perpendicular to the buried ditches which flank the earthwork *agger* (6). This pattern is only reflected by two shallow scarps on the surface, and bears no resemblance to the pattern of minor cultivation earthworks in this area. The features, buried ditches

and wall foundations, indicate a narrow arrangement of tightly packed and solidly-built enclosures, some containing traces of small buildings, set end-on to the road in the manner common to many military *vici* recorded at forts on the Wall and elsewhere (Sommer 1984, notably figures 6-8 and 13). The settlement pattern appears to continue westwards beyond the defences for perhaps 100m, to the point where route 6 divides on the slope above the fort. The width of the settlement is unclear. At present it can be traced for about 20m on either side of the road. However, given the masking effects of the bog on the north side of the saddle and similar conditions to the south, the pattern may be more extensive than has so far been revealed.

The acute angle between the eastern-most plot seen as a geophysical anomaly on the south side of the *via decumana*, and the line of the fourth rampart bank (IV), suggests that the expansion of the south western defences overran a portion of this settlement. The subsequent closure of the road through the unfinished defences would tend to support such a conclusion, and perhaps suggest that these alterations ultimately led to the demise of the settlement on this side of the fort (Figure 19, Phase IV). A further element which appears to be connected with this area of the *vicus* has been identified just outside the southern corner of the fort's defences (61). The earthwork evidence indicates a simple platform, perhaps bounded by slight banks, but the geophysical evidence (magnetic) depicts a very pronounced rectangular enclosure protruding from beneath the ramparts, with internal anomalies that suggest the remains of a substantial structure, one part of which, adjacent to a projecting annex on the south-western side, has a particularly strong magnetic signature. It would not be unreasonable to suggest that this was a bath house, originally situated just outside the defences in order to serve either the fort or the adjacent settlement. This too may have been swept away by the expansion of the south-western ramparts, and perhaps replaced by the bath house (10) which overlies the defences at the northern corner of the fort.

The geophysical evidence (magnetic) gives the impression of fragmented ditched plots (62), aligned with the Maiden Way to the south-east of the fort, east of Holymire barn (Hale 2009, 11). However, the field evidence in this area suggests that these may be no more than by-products of the intersection of the road with the medieval cultivation pattern and with the upcast from a seasonal drainage channel. In general, the southern side of the fort exhibits a conspicuous absence of settlement evidence. This is a little strange given the opportunities offered by the expanse of comparatively sheltered, well-watered and level ground to the west of the road to the south-east gate. The area has been extensively ploughed leaving bold patterns of ridge and furrow on the surface, and it is possible that few traces of earlier earthworks would have survived this process.

Yet the geophysical surveys demonstrate that the pattern of later cultivation conceals only one significant feature – an embanked and ditched square, some 12m in width, set below the southern corner of the ramparts (63). A suggestion, to which we shall return in the discussion, is that this area may have been reserved for specific military activities.

Trackways and fields

Associated with the *vicus* is a network of trackways which form a link between the main roads to the north-west and south-west gates and provide access to associated fields and

enclosures on the slopes on these two sides of the fort. Some of the routes have been re-used or otherwise modified by later field banks, boundaries and hollow ways (mostly associated with post-medieval settlement and agricultural use and described later). However, a basic framework of early interconnecting trackways and their relationship to fields can still be reconstructed from the earthwork remains. The trackways are identified by number on the earthwork plan (Figure 42) and illustrated in a more schematic form, together with associated field systems, on Figure 23.

Within the eastern part of the northern settlement zone, three hollow ways (Tr3, Tr7 and Tr8), share the same north-east to south-west alignment which appears to have been marked out with reference to road 5 in order to provide access to the long plots (30–33) arranged down this slope. The middle route (Tr7) appears quite minor and fades out as an earthwork before reaching the road. The southern route (Tr3) is more deeply worn, suggesting more intensive or prolonged use in relation to the buildings situated below the bath house, or perhaps as a link between the north-west gate and the temple and burial ground thought to have lain beyond the northern corner of the fort. To the north, Tr8 runs parallel to the Lort Burn for approximately 45m before it is lost to erosion along the valley side. This route intersects with the road from the north-west gate just as it peters out as an earthwork, and forms a junction with a broad, shallow and less regular hollow way (Tr9) which divides into two sections, one heading north-east, the other pointing south-east in the general direction of Tr7. Tr9 cuts across the parallel, axial arrangements on this slope, and can therefore be assumed to be either a later phase within the evolution of these linear plots, or completely later in date.

The line of the southern hollow way (Tr3) is mirrored by Tr4 on the western side of the main road to the north-west gate. Here it is much better defined as a broader (6m wide) trackway that runs straight for some 22m, maintaining a right-angle with the main road, although cut across and blocked by the stony bank which forms part of a late medieval or post-medieval boundary (Figure 42, D). At its western end, Tr4 splits in two. One short branch heads to the north (Tr5) towards trackway (Tr1), whilst the other, longer route (Tr6) heads south-west towards the possible *mansio* (58). The middle portion of this route, passing through this building complex, is evident in the earthworks as a very straight, terraced way; its route further west continues a sinuous course as it gently climbs the slope, eventually also joining trackway Tr1, although the precise junction is overlain by the pre-turnpike road around the curving intake wall, which now carries the Pennine Way. To the west of the possible *mansio* this route is clearly cut by another hollow way (Tr10) which follows the slope down towards the western corner of the fort. Here it cuts through the earthworks of the outer rampart, as well as terraces on the slope, which suggests a re-use of the western section of Tr6 at a later period.

The trackway (Tr1) into which both routes Tr5 and Tr6 link can be traced from the continuation of the *via decumana* (6) outside the south-west gate, following the contours of the curving shoulder of high ground to the west and easing gently down the slopes towards the Lort Burn. Its unusual width (4m–6m) and form, mostly a slight terrace cut into the slope, are consistent with that of trackways Tr4 and Tr5 noted above, whilst Tr6 is only slightly narrower. At its south-western end there are clear indications that Tr1 made a right-angled turn and led directly towards the *agger* approaching the south-west

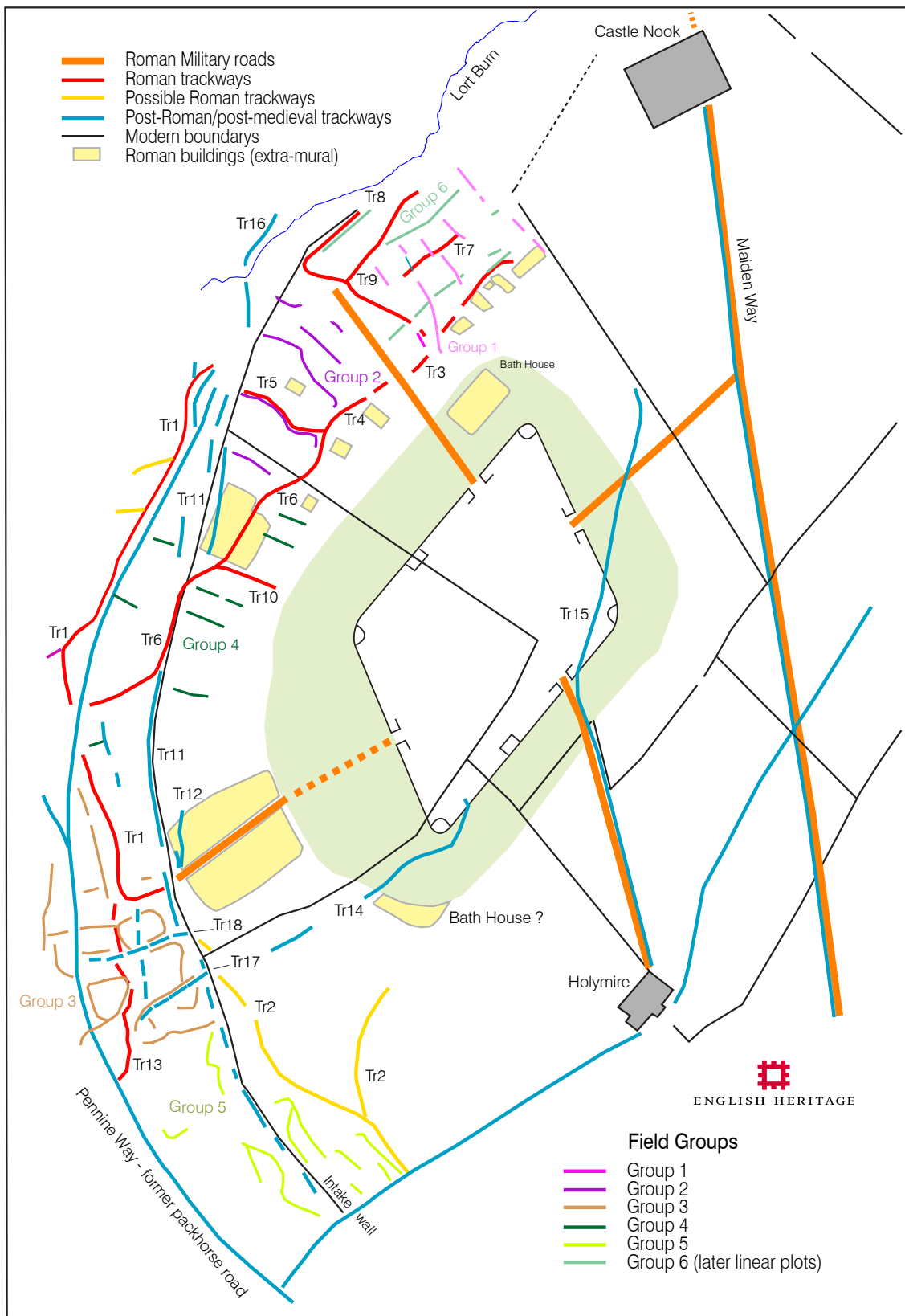


Figure 23. Trackways and fields associated with the fort.

gate. The profile of the *agger* remains visible between two deep and much later hollow ways (Tr11 and Tr12), but the first of these has obscured the precise connection between the *via decumana* and the trackway Tr1. There is evidence in the surviving earthworks for more than one version of Tr1 following much the same route. From the corner, and for approximately 80m to the north, the earthworks are those of two separate, stepped terraced ways within the same 10-14m wide corridor. The lower one is the best defined: 4m wide, with the partial remains of an upcast bank on its east and north sides, particularly at the right-angled corner. The second, higher route is marked by a scarp which defines the boundary of a field above and a narrow terrace below. Since the lower hollow way is clearly worn into this terrace, notably at the corner, it must represent a later period of use. A detached section of trackway (Tr13), which extends some 80m to the south of the corner of Tr1, has a similar form to Tr4, Tr5 and Tr1, and may continue this latter route out into a field system which has been identified beyond the survey area further to the west (see below). Similarly, trackway Tr2 may have connected to Tr13, and thence to Tr1, before extending beyond the southern corner of the fort; although the well-worn complexity of the interposed routes and small enclosures at the junction does not allow for certainty on this point, and it is possible that Tr2 belongs to a medieval or post-medieval phase. The northern end of trackway Tr1 also disappears into a braid of later hollow ways, much affected by slumping and erosion, as it approaches the gully of the Lort Burn.

Two critical strands of evidence suggest that the pattern of trackways described above is associated with the *vicus* surrounding the northern and western sides of the fort. Firstly, it is apparent that these routes frame the enclosures and provide lines of communication between the various plots on this side of the fort. Secondly, both ends of this interconnecting system lead into roads that serve the fort's gateways, and crucially, Tr1 feeds directly into the approach to the south-west gate, which itself became redundant within the lifetime of the fort - an event which provides a *terminus ante quem* for this part of the network. There is no plausible context for the development of this network of tracks in a later period, as there is no evidence of any steadings or similar structures on this side of the fort which could generate the need for such a complex pattern. All the later settlement identified is located either within the fort itself or to its south and east, and earthwork stratigraphy indicates the particular arrangements for access and communication associated with these locations.

The occupants of the *vicus* evidently required an infrastructure of planned trackways, although there is also evidence for the organic development of the original layout over time, to connect separate areas of activity to the north and west of the fort and doubtless to provide access to other resources further afield. Intermingled with the trackways and building platforms on these slopes is a complex pattern of earthworks, some of which extend beyond the survey area to the west. The interpretation of these features is complicated by the presence of a number of natural and excavated drainage channels which run down the slopes, particularly from the higher boggy areas to the west, but some clearly define a mix of large regular field boundaries and curvilinear plots, whilst others represent smaller paddocks, yards or fields.

The remains of the field systems which may be associated with the fort and *vicus* can be divided broadly into five groups, although certain areas physically overlapped and perhaps merged over time. The first group comprises the series of low, irregular terrace-like scarps (34-38), at intervals of about 15m, which seem to underlie the linear enclosures (30-33) running down the slope to the east of the approach road in area between the fort and the Lort Burn (see Figure 23 groups 1 and 6). The second group consists of a pattern of similar boundaries, although larger and more sinuous in form, to the west of road 5 and north of trackway Tr4/Tr6. The four scarps here (42-45; Figure 23, Group 2), which partly define the possible settlement plots 41 and 49, reach up to 3m in width and 1.2m in height. Although the appearance of these earthworks may be enhanced by the development of the settlement plots and associated trackways, there seems little doubt that these scarps, like those on the more gentle slope to the east, initially developed through a process of stone clearance and cultivation. In many respects, these strip-like patterns are similar to so-called 'Celtic fields' and their boundaries, the terraces or lynchets, are typical of those which can be observed around prehistoric settlements in upland areas in the North (for example, Jobey 1960, 1-38; 1962, 42-60; 1972, 71-80; Gates 1982, 21-42). In a more local context, further examples of extensive 'Celtic fields' and lynchets have recently been discovered through field survey in association with late prehistoric or Romano-British settlements overlooking the South Tyne valley in the course of the Miner-Farmer Landscapes project. The precise date of the fields at Whitley Castle cannot be determined on the strength of the present evidence, however; nor indeed is their full extent known, since the areas to the north of the intake wall are obscured by later trackways and by boggy ground. If pre-Roman in origin, they could relate to a hitherto unrecognised prehistoric settlement, perhaps one supplanted by the fort. Alternatively, they might belong to an early phase in the occupation of the fort, later overwritten or subsumed within a more complex pattern of settlement plots, paddocks and fields.

The third group (Figure 23, Group 3) comprises lynchets of a sinuous form similar to the second group noted above, but the terraces they define are divided into a number of much smaller plots, and their alignments match to a much more noticeable degree. These can be seen on the slopes to the south-west of the fort, surrounding the separation of trackways Tr1 and Tr13 and extending in fragmentary form beyond the survey area into the boggy ground on the higher slopes beyond. The pattern here consists of two main terraces, one above and one below the line jointly described by Tr1 and Tr13. Despite the imposition of several later tracks and hollows alongside the intake wall, it remains apparent that the terraces to the south of the junction were partitioned by banks and scarps into at least four, possibly five smaller plots flanking Tr13. It is also evident that this pattern evolved through time, since one small plot (64) and some other banks lie awkwardly across Tr13, and must have been added or extended after this route had fallen out of use. In terms of proximity and ease of access along the connecting trackways, there seems little doubt that these plots or paddocks were closely related to the fort and perhaps to the settlement area revealed by magnetic survey outside the *porta decumana*. Changes in the fortunes of this settlement, linked to the expansion of the ramparts and the closure of the gateway, may be reflected in the plot alterations noted above.

The fourth group of earthworks indicating fields is located between the second and third areas noted above, appearing within the northern settlement area near the western corner of the fort and continuing around the south-western flank. The boundaries here are very different to those of the first three groups. This system comprises a series of narrow, stony banks and similarly oriented scarps (50-57, Figure 23, Group 4) running down the south-east facing slope. They can be traced, in varying states of preservation, on both side of trackway Tr1 extending down into the boggy ground bordering the western defences. Enough survive to indicate that this entire slope was probably divided into a series of strip-like fields radiating from the fort. The form and orientation is similar to the banks noted alongside the building platforms 47, 48, and this part of the northern settlement may well relate directly to the development of these fields. In this respect it is worth noting that none of the banks in this pattern encroach on the lines of the trackways which serve this area.

A fifth group of earthworks which are indicative of field boundaries and trackways is located at the extreme south-west of the survey area (65, and Figure 23, Group 5), and is best preserved in the field to the east of the intake wall. The understanding of this area is limited by the boundaries of the survey, but a rapid inspection indicates that some of the very low earthworks here are part of a much more extensive complex of settlement and fields associated with the medieval and post-medieval hamlet of Whitlow to the south, as well as with a small, later farmstead close to the intake wall to the north (see M below). Within this group, however, one branch of a sinuous, forking trackway (Tr2) noted above, appears to head toward the junction of Tr1 and the road leading to the south-west gate of the fort. This may again indicate an origin in the Roman period, although the connection cannot be proven due to the concentration of later disturbance alongside the intake wall. To the south, this same track appears to be heading in the general direction of a feature, some 200m distant from the fort, which has been tentatively identified as a late Iron Age 'scooped settlement', on the basis of preliminary investigations for the Miner-Farmer Landscapes project. It is possible that some of the larger groups of fields here and to the west of this track, outside the survey area, were associated with this settlement, or that the low terraces in this area and to the west of the intake wall have origins in the Roman period. This remains highly speculative at this time, however, due to the limits of the area covered by detailed earthwork and geophysical surveys. Further study as part of the Miner-Farmer Landscapes project will certainly do more to clarify the evolution of the wider field systems surrounding the fort.

4.2 Post-Roman settlement and agriculture

4.2.1 Cultivation

The fossilised patterns of ridge and furrow ploughing to the south and east of the fort provide some of the earliest evidence for activity in the post-Roman landscape. The pattern to the east – broad ridges, averaging 7m wide, with the shallow reverse 'S' signature of an ox-drawn plough – is of type generally regarded as medieval in date, here possibly representing a 'high-tide' of cultivation dating from the 13th and early 14th centuries (Winchester 2000, 160). The earthwork remains of this ploughing, reduced by modern pasture improvement, can be seen across the full widths of the fields between

the fort and the modern main road to the east; beyond which they can be traced, as crop- and parch-marks visible from the air, extending towards the margins of the river (OS 1969, 69248-168; OS 1976, 76192-133). Alongside the fort itself this ploughing extended across the north-eastern defences, levelling some parts of the outermost works, as described above, and penetrating as far as the second ditch on the south side of the gateway (Figure 42).

On the south side of the fort the upper limit of the broad-ridged ploughing is bounded by the old road (4) to the south-east gate, beyond which the cultivation remains are quite different in character. The short furlong that crosses the comparatively level ground below the ramparts to the west of this road is composed of more narrow, straight ridges, around 5m in width, which suggest the use of a horse-drawn plough and a somewhat later, post-medieval date. Later still, this furlong was cut or divided by a drainage ditch (A) and the small area to the west of this line was ploughed or dug in a even more narrow pattern based on a rather erratic sub-division of the earlier ridges. Another narrow-ridged cultivation pattern covers the side of the spur immediately below the southern defences. The slope here has been ploughed along the steep contours to provide thin, 3m-wide ridges: a difficult operation, but presumably one which was made worthwhile by the benefits of good drainage and a relatively warm southerly aspect. These are almost certainly post-medieval in date: later than the furlong below the spur, which is encroached upon by the lynchet formed by the lowest of these ridges, yet earlier than the drystone wall between Holymire and the fort which was probably imposed across this pattern in the 18th century (see Section 4.2.3 below).

Very narrow ridges, barely 2m wide and probably spade-dug, can also be detected across the narrow shoulder of land outside the south-western defences, running perpendicular to the *agger* (6) approaching the south-west gate. They are arrayed across the slight terraces which appear to reflect the underlying settlement remains on the north side of the road. Some continue across the *agger* and others, in a more fragmentary pattern, are framed by a ditch cut along the road's southern edge and a substantial bank (B) extending southwards for about 25m. These ridges may relate to one or other of the later buildings located within or adjacent to the fort described below; but, other than the fact that these ridges clearly post-date the use of the road, there is no direct evidence for the date when this narrow, well-drained strip of land was brought under cultivation.

The intake wall and earlier land boundary

Prior to the enclosure of Whitlow Common in 1862, the sweeping line of the drystone wall around the western side of Whitley Castle (between Whitlow and the Lort Burn) marked an absolute division between in-bye farmland and the common moorland (*Whitlaw Inclosure Award* 1862, Northumberland Records QRA 58). The presence of this boundary can be inferred from the route of the pre-turnpike road shown on Thomas Donald's *Map of Cumberland* of 1774 (Figure 24) but it is likely that it was old even then, quite probably originating as the head dyke or intake boundary around the fields which had been improved and drained by ridge and furrow, none of which extend beyond this line. This, however, was not the first broad land division to affect the former fort. In the south of the survey area the intake boundary cuts across an earlier, 2m-wide ditch, with a bank flanking its east side (C), that runs almost due south through the outer defences

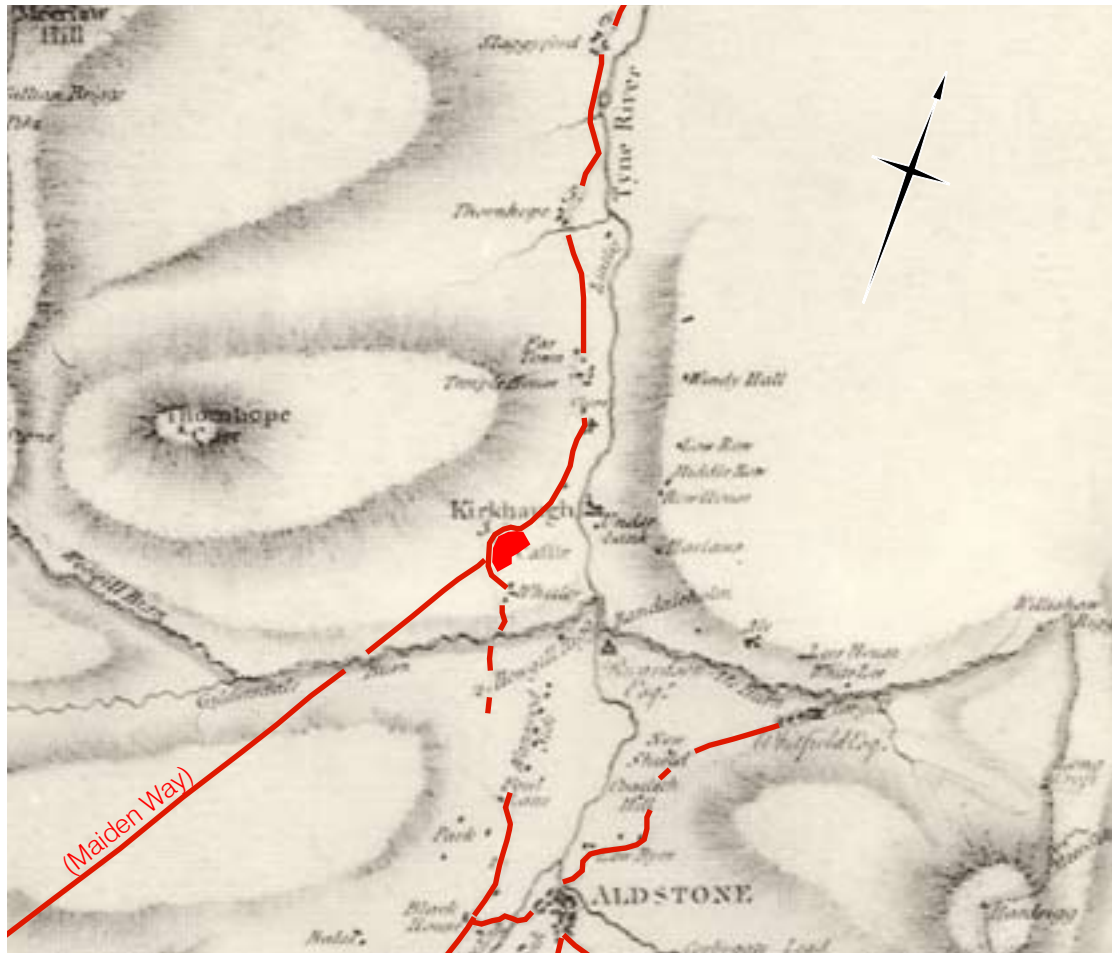


Figure 24. Extract from Thomas Donald's Map of Cumberland, surveyed in 1770-71 and published in 1774. Reproduced with the permission of the Cumberland and Westmorland Antiquarian and Archaeological Society. (Roads, tracks and the approximate area of the earthwork survey are emphasised. A north arrow has been added).

on the south-western side of the fort. This feature can be traced as an earthwork for approximately 40m beyond the intake wall, and as a slight mark on aerial photographs for a further 200m, after which the route is lost (OS 1977, 76192-133). To the north this feature can be traced as an earthwork up onto the fort's collapsed western corner tower; and from here the inner rampart bank may have served as the continuation of the boundary as far as the north-west gate. From this gateway, a further section of bank and ditch (**D**) runs northwards towards the Lort Burn overriding hollow way **Tr4** and the adjacent plots and fields. This has an identical form to the bank and ditch seen to the south-west of the fort, and is almost certainly part of the same boundary, and not a leat supplying water to the northern bath house as suggested by Frere and St Joseph (1983, 120).

Taken together, the long boundary (**C** - **D**) clearly post-dates the ramparts, yet it must be earlier than either the curving intake boundary or the field boundaries contained within it. Therefore it appears to have formed part of a very different and potentially larger land division focused on the corner of the fort.

4.2.2 Bastles, farmsteads and sheepfolds

Whether on account of its continued significance in the landscape, the shelter still provided by the former ramparts, or the ready supply of reusable building stone, there is no doubt that people found reasons to settle within or directly adjacent to the fort in later periods. The remains of six later buildings are to be found within the fort and its defences, and others lie immediately nearby. The majority of these, as described below, are probably or most certainly post-medieval in origin; although several cannot be dated with any degree of confidence on the strength of the present evidence.

Later buildings within the fort

There is evidence for three post-Roman buildings within the walls of the fort. Two of these (**E** and **F**), similar in outline and probably in date, lie within the *retentura*, close by and roughly parallel with the south western rampart (see Figures 25, 26 and 43). The southern of these two buildings (**E**) is marked by a well-defined robbing trench around the line of its foundations, 1m or more in width, which indicates a structure some 16m in length and 6.5m wide. A square pit-like extension to this trench suggests a small but strongly-built extension at its southern end - perhaps the foundations of a flight of steps to a first floor entrance - and a small angular projection indicates a second lesser addition, or perhaps a connecting yard wall, on the western side. In terms of overall size, and the evident thickness of the wall, this building can be identified as a bastle, or bastle-like house: a stout, defensible dwelling, with living quarters above and byre below, of a type that first became widespread throughout the Borders during the turbulent years of the later 16th and early 17th centuries and persisted into the later 17th century. Three such buildings are clustered nearby at Whitlow, barely 300m to the south-east of the fort (see Figure 25). One of these, termed 'Whitlow I' by Peter Ryder (1994, 125), is contained within the long range of farm buildings to the south west of the 19th-century farm house. The ruins of the second (Whitlow II) lie some 70m to the north-west of the farm house, and the third (Whitlow III), recently restored and partly roofed, lies a further 30m or so to the north-west. A fourth bastle lies in a more isolated location at the core of the Holymire farm building, part-way between Whitlow III and the fort (this building falls within the area of the earthwork survey, and is considered in slightly greater detail below). The low ruins of Whitlow II and the heavily altered walls of the original Holymire bastle are difficult to date, but the earliest phase at Whitlow I has been assigned with some confidence to around 1600, and that at Whitlow III to the latter part of the 17th century (Ryder 1995, 125; 2006, 4-8; 2008, 12-13). All four of these early buildings have similar dimensions, between 6m and 6.4m in width and from 10m to 10.9m in length, and these proportions are mirrored in many other examples throughout the district (Ryder 1995, 116-125). Building **E** within the fort conforms to this tradition in terms of width, but it is some 5m-6m longer than the normal length of a single bastle. Individual bastles were, however, frequently enlarged. Both Whitlow I and Whitlow III were extended before the end of the 17th century, reaching 17.2m and 18.2m in length respectively; and on the opposite side of the South Tyne Valley the bastle at High Row grew from 10m to 16.7m in length in the mid 18th century (Ryder 1995 125-6; Ryder 2006 4-8; Ryder 2008 11-12). A similar process of extension may have applied to the building within the fort, as is implied by the appearance of two distinct hollows, suggesting two bays or phases, within the overall building plan.

the area of the closed south-west gate, and by the well-defined route (Tr14) which skirts the collapsed southern corner tower before entering on a ramped track through the south-eastern wall.

The second building in the *retentura* (F) lay some 15m to the north-west of the bastle. This is indicated by a somewhat less coherent pattern of robbing trenches and scarps which form the outline of a similar linear structure, also positioned (albeit with less precision) on the line of a former barrack block (23). The building's dimensions, some 7m in width and 20m in length, are similar to those of the adjacent bastle, and traces of an internal partition suggest that it too may have undergone a process of enlargement. The main difference is that the walls of this second building appear to have been considerably less massive, a distinction that might allow this structure to be classified as a 'bastle-derivative' or 'byre house': a less defensible dwelling in the same overall tradition, normally dated to the 18th or early 19th centuries (Ryder 1995, 8-9; Lake and Edwards 2006, 42-3). Although the second building may have been a replacement for the bastle, it is much more likely that it formed part of an enlarged settlement, contemporary with (and presumably related to) the development of the adjacent group at Whitlow. This scenario would account for the worn route along the old *via decumana* within the fort which appears to have been re-instated as a means of access into the fort (from the notch to west) and to separate the holdings surrounding these two buildings. It is difficult to distinguish any features on the north side of this route, amidst the heavily disturbed remnants of the Roman barracks, which might have been specifically associated with the northern bastle-like house. However, it does seem that the south-western rampart was cut back at this time in order to create a wider easement around this building; and it is possible that the levelled area within the angle of the *via decumana* and *via quintana*, was cleared of stones to improve the ground during this period of occupation.

The original 'Castle Nook'

The third building in the interior of the fort (G) stood quite apart and on a completely different alignment from the paired bastle and bastle-derivative. The wholesale demolition and robbing of this building has left a well-defined rectangular hollowed terrace, measuring approximately 25m long, 10m wide and up to 0.6m deep, located parallel to and some 15m inside the rampart, just south of the south-east gateway, where it is bisected diagonally by a later drystone wall. A narrow sunken yard area flanks the south-west side, and contains the impression of a small square structure (H) demolished to an equal degree, which may have abutted the southern corner of the main building. A second smaller building (I), located on and aligned with the track along the *via principalis* to the north-east, may also have been part of this complex, the greater part of which overlies the supposed location of the former Commandant's House (15). The adjacent section of the former rampart, south of the main building and yard, appears to have been levelled and perhaps subdivided into a series of small pens set against the line of the fort wall.

To judge from its overall dimensions, the main building was quite unlike the extended bastles nearby. It was much closer in scale to the linear form of farmstead that developed locally in the more peaceful circumstances of the later 18th and 19th centuries, and may, therefore, have superseded the earlier, more defensible structures within the

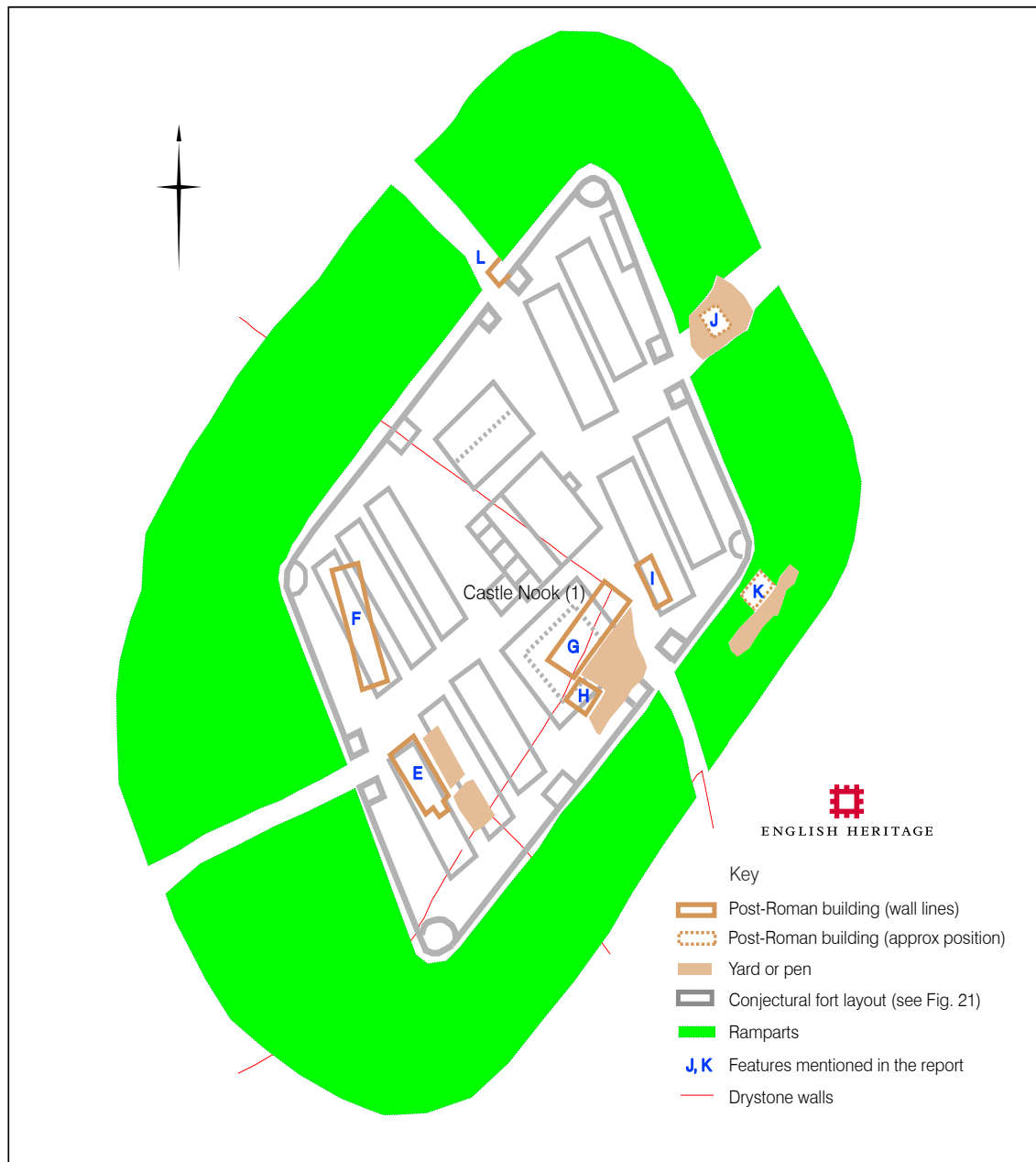


Figure 26. Later buildings superimposed on the conjectural plan of the Roman fort.

fort, perhaps reusing their stone, some of which was quite probably of Roman origin. Indeed it may be possible to equate this house with the documented existence of a named building within the fort – Castle Nook - the house in which the Northumbrian historian John Wallis was born, and which was to prove particularly influential for the future direction of his life:

“Northumberland being Roman ground, and receiving of my first breath in one of their Castra (Alione, or Whitley-Castle), I was led by a sort of enthusiasm to an enquiry and search after their towns, their cities, and temples, their baths, their altars, their Tumuli, their military ways, and other remains of their splendour and magnificence:..”
 (Wallis 1769 *The Natural History and Antiquities of Northumberland* Vol I vii-viii).

Hodgson believed that Wallis' birthplace, termed 'the Castle-nook' in the Kirkhaugh baptism record for December 1714, stood 'just at the south entry to the station', and that it was in this same house, the home of the later proprietor of Whitley Castle, Henry Wallace, that Horsely recorded a fragmentary Roman inscription in 1728 (Horsely 1732, 250; Hodgson 1840, 71,77; and see Appendix I, 1201). This house may be that depicted in a highly stylised form beside the fort on Donald's 1774 county map (Figure 24). By 1840, however, when Hodgson published Sopwith's first map of the fort (Figure 4), this building was long gone: the name, and perhaps the reusable stone, transferred to the present farmstead to the north of the fort. The former house within the fort does not appear to have been completely forgotten, however. On both his first plan, and his second published in 1853 (Figure 6), Sopwith marked a distinct L-shaped bank inside the south eastern rampart. Since no such corresponding feature can be found in this location, it may be supposed that this was merely a simplified indication of a boundary around the former building and yards.

Later structures set into the gates and ramparts

At some point after the fort ceased to function, the approach to the north-east gate was occupied and blocked. The earthworks here define a narrow L-shaped building platform just outside the former gate, linked to a series of irregular terraces which descend between and beyond the terminals of the outer defences (J). Narrow banks and foundation stones indicate that some parts of the old defences to either side of the entrance (most noticeable across the second bank to the north) were enhanced to form associated pens and enclosures, suggesting the presence of a small farmstead. The geophysical (magnetic) survey does little to clarify this interpretation, perhaps indicating that the buildings implied by the earthworks were relatively insubstantial. The only clue to the date of this arrangement lies in the adjacent pattern of broad ridge and furrow which, in stopping short of these enclosures, suggests that they were in use at the time of the ploughing. A medieval date is implied, although far from certain.

Another rectangular structure (K), evidently later than the fort, stood on a sheltered terrace created from the berm between the south-east gate and the eastern corner of the defences, immediately above two scooped pens or yards, each with level bases, cut into the line of the innermost ditch. These yards appear to have been arranged within a stone wall, the foundations of which extend along the crest of the first defensive bank, and which probably connected to the field wall that formerly ran alongside the old Roman road to the south-east gate (see below for a discussion of post-medieval enclosure walls). This all has the appearance of a small farmstead and associated pens or sheepfolds, presumably long disused when Sopwith's plan of the fort, showing the small building, kiln or corn-dryer inserted in the western corner, was published in 1853 (mentioned in Section 4.1.2 above and see Figure 6). The foundations of a further pen, long since demolished, extend across the north-west gateway, overlying the collapsed remains of the gatehouse and blocking about the half the width of the entrance (L). This structure, roughly square and some 4m in width, was built into the remains of the fort wall to the south of the gateway, and may have been gated to the north-east. The trackway through the fort, the old *via principalis*, cannot have been much used at the time when this feature - a common form of sheep pen - was built.

Buildings beyond the fort.

A map of the proposed sections of new turnpike between Alston and Brampton, drawn in 1823, shows the name 'Castle Nook' still clearly equated with the outline of the fort, and no building corresponding to the present Castle Nook farm beside the road (Figure 27). It would seem likely, therefore, that the completion of the turnpike was the impetus for the relocation of the farm. For the location of the new farmhouse, the builders chose the terrace of the Maiden Way, but the building was aligned to face more directly onto the new road – a situation somewhat over-emphasised on Sopwith's 1840 plan of the fort (Figure 4).

The main house, as well as the walled garden toward the road, remains substantially as depicted on Sopwith's plans from 1840 and 1853, but the accompanying outbuildings have since been replaced by modern structures, yards and pens. On the other side of the fort the farmstead at Holymire remained in occupation through much of the later 18th and 19th centuries, during which period the original bastle, mentioned above, was heightened and extended to the north west to form a long range, comprising house and barn (Ryder 1995, 118). Although depicted as a dwelling on the enclosure map of 1862, it has since reverted to the status of a barn with the addition, in the 1960s, of a large byre on the north side (QRA 58 Map B).

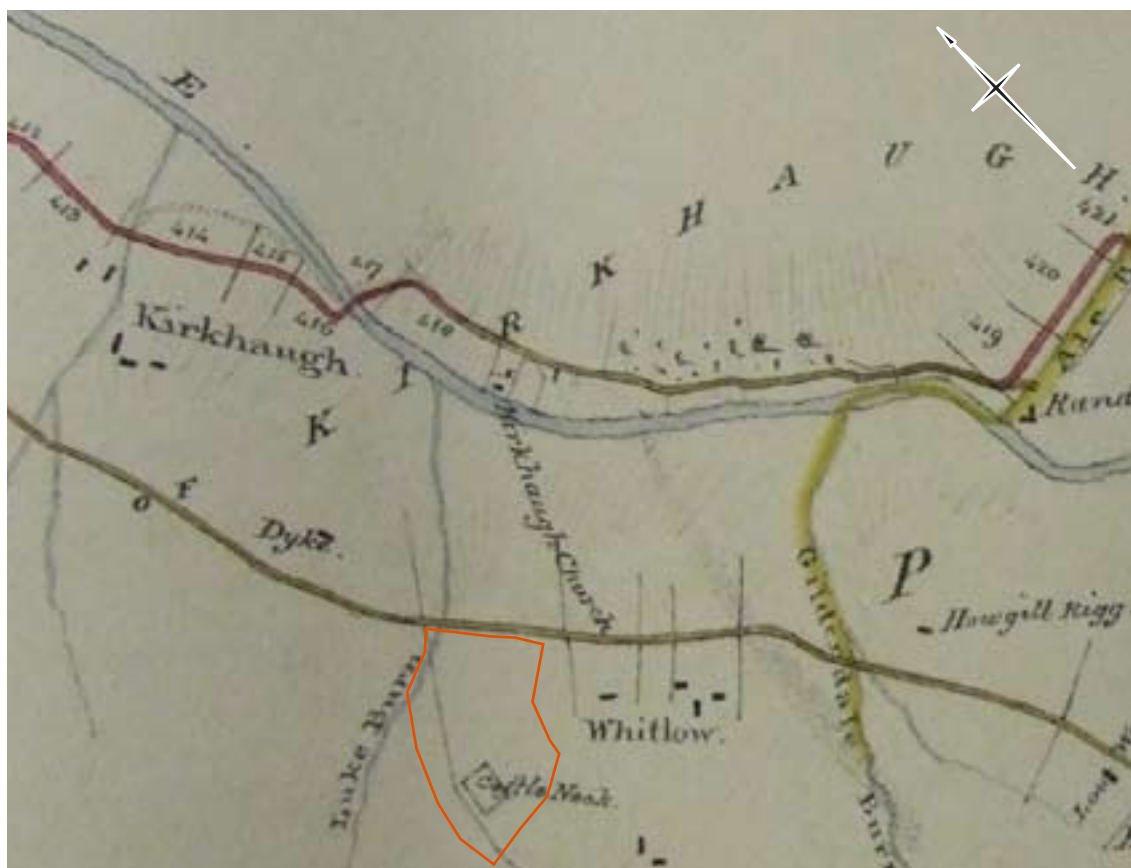


Figure 27. An extract from the map of the proposed turnpike road from Alston to Brampton, dated September 1823 (Cumbria Record Office QRZ 10). Reproduced with the permission of Cumbria County Council. Earthwork survey area (approximate) outlined in orange. North arrow added.



Figure 28. Holymire barn viewed from the south-east. The original bastle forms the south-western end of the building (to the left of the photograph) where the blocked first floor entrance can still be seen.

Within the area of the survey there are four, possibly five, further locations adjacent to the fort containing earthwork evidence of other late medieval or post-medieval farm buildings. The first lies just inside the intake wall, alongside trackway **Tr2**, a short distance from the southern corner of the fort. The main features of this steading are two rectangular platforms of similar size (**M**), that to the east retaining visible and geophysical evidence for a narrow rectangular building along its southern edge. The sunken yard to the south of these platforms merges into the fork in the trackway which now acts as a catchment for surface water from the slopes above. Fluvial erosion and various attempts to drain water away have had a considerable effect on the legibility of the remains. Nevertheless, it is evident that the eastern arm of **Tr2** limited the westward extent of the field of straight, ploughed ridges to the south of the knoll, from which it can be inferred that, even if this route was Roman in origin, it remained active in the later medieval or early post-medieval period. The narrow bank which defines the northern edges of the two platforms divides into scarps along the main western arm of **Tr2** similarly indicating contemporary development. A field immediately north of the platforms, defined by a parallel scarp 30m beyond, and a slight bank across the outermost scarp at the southern corner of the fort, might be contemporary with the steading. So too might a number of rectangular fields aligned with the trackway where it runs south, beyond the earthwork survey area, towards a number of smallholdings seen on the magnetic survey and noted in a rapid assessment of visible remains. It is also possible that this smallholding was responsible for the creation of the plot at the western end of the furlong of ridge and furrow between the fort and Holymire barn, in which the earlier ridges were re-ploughed in narrower strips.

The second area of later farm activity lies at the base of the spur below the south-east defences (N). Here, on the western side of a later drystone wall, a building measuring some 12m by 5m has been removed, leaving only a few angular scarps and banks superimposed on the broad ridge and furrow, indicating that they are likely to be post-medieval in date. To judge from the robbing scars, the walls of this building were far less substantial than those of the bastles and bastle-derivatives nearby and, as it also appears to lack any evidence for a surrounding yard, it is far more likely to have been an isolated pen, rather than a dwelling. On the eastern side of the drystone wall, a slightly hollowed area may be the remains a further pen or sheepfold set beside the trackway on the old road to the fort at an unknown date, but again certainly later than the underlying ridge and furrow ploughing. The two sets of remains are bordered by a drainage channel on the south side and may be related in date and function.

The third area of later activity (O) lies to the north-east of the fort, between the line of the Maiden Way and the modern road. Here the remains of a narrow ditched and banked enclosure, possibly part of a pair or group of pens, are superimposed on the underlying pattern of ridge and furrow ploughing. They share the alignment of the road and must, therefore post-date its original construction in the 1820s. These pens are truncated by a low bank, a redundant field boundary, which follows the direction of the broad ridge and furrow from the roadside wall to the line of the Maiden Way. This boundary must have been short-lived as it appears neither on the enclosure map of 1862 nor the first Ordnance Survey map of 1865. It may have been superseded by a similarly aligned wall, marked on both maps, traces of which (P) can still be found some 40m to the north (QRA 56 Map B; Ordnance Survey 1865).

The fourth structure (Q) lies at the extreme south-west of the survey area, close to the point where the Pennine Way intersects with the linear boundary C. Part of an embanked rectangular enclosure, perhaps 20m in length and 10m wide, is shown near this intersection, protruding from beneath the western side of the track on aerial photographs taken in 1971 prior to land improvements (CUCAP 1971, BEW 20). Clearly earlier than the track, yet showing no alignment with the linear boundary, the date of this feature remains unknown. Probably no more than a pen, it is now indicated merely by a series of disjointed and fragmentary scarps.

4.2.3 The 'Old Inclosed lands'

In preparation for the wholesale enclosure of Whitlow Common in 1861-2, the existing 'Old Inclosed lands' throughout the Manor of Whitlow were surveyed and recorded together with details of their respective owners and tenants (*Whitlaw Inclosure Award* 1862, Northumberland Records QRA 58). At this time, the majority of fields surrounding the fort lay in the ownership of John Henderson of Castle Nook, the successor to Joseph Henderson who had uncovered the Roman midden on the north side of the fort some 35 years before (Sopwith 1833, 39). Henderson's property included the fields surrounding Holymire, which he also owned, and some fields adjacent to the Whitlow III bastle (Figure 29, Nos. 143, 146, 147 and 150) which he had recently purchased from the estate of William Atkinson. Only three fields lay in other ownership. The long field beside the approach to Whitlow (No. 149) together with the Whitlow II



Figure 29. Extract from Map B of the Old Inclosed lands in the Manor of Whitlaw (QRA 58 Map B) Surveyed by John Salkeld in 1861 (see Figure 31 for the complementary map of the new enclosures). Reproduced with permission of Northumberland Collections Service. The extent of the earthwork survey is marked in orange, and a north arrow has been added.

bastle farmhouse (No. 148) belonged to the Greenwich Hospital, which had considerable interests in the area. The other two, both rather irregular fields alongside the intake wall (Nos. 142 and 138), belonged to the proprietors of the main farm buildings at Whitlow (including the Whitlow I bastle), Charles and Fanny Bartley, who also owned the majority of the fields further to the south.

This pattern of drystone walls around Whitley Castle has remained largely fixed since the time of the enclosure award. It owes none of its orientation to the earlier landscape of ridge and furrow (except for the single wall **P** which followed a furrow between the turnpike and the Maiden Way, mentioned above), suggesting that a major reorganisation of holdings took place long after that pattern had been abandoned. It may, however, have origins at a time when the last of the farm buildings within the fort - the suggested 'Castle Nook' of John Wallis' time - remained in use. There can be little doubt that the shape of the Bartleys' northern field (Figure 29, No. 138) was determined by the convergence of walls at the two ends of this farmhouse, and that the present field corner was created by adding a short (and slightly off-angle) section of wall across the demolished footprint of that building (see Figure 43, **G**). A third wall may also have extended from the eastern end of this farmhouse, continuing southwards towards Holymire, and in so doing effectively continuing a major land division through the centre of the fort. One short segment of this wall still stands at the centre of the zig-zag arrangement below the defences, but its foundations can also be traced into the rubble trackway at the fort entrance, and southwards along the edge of the Roman road towards Holymire, where it still stood in the latter part of the 19th century (Ordnance Survey 1895). At one time this boundary would have formed the original eastern end of a field which encompassed the greater part of the fort's south eastern arm, later depicted on the enclosure map as a curious narrow westerly extension to field 137. By 1900 this extension had been partitioned by a continuation of the wall that runs directly toward the fort from Holymire; after which, but within the next 20 years or so, the southern boundary was removed in order to expand the field between Holymire and the intake wall (Ordnance Survey 1900; 1922). The position of this demolished wall is still marked by a sporadic line of foundation stones, visible along the outer terrace of the south western defences and across the marshy ground beyond the southern corner of the fort (**R**).

There have been a number of other minor alterations to the mid 19th-century field layout, mostly as a consequence of the development of the present Castle Nook farmstead. The wall which runs roughly parallel to the north-eastern arm of the fort is presumed to be that marked on the enclosure map between field No. 137 and fields Nos. 123 and 136 (Figure 29), or that of an earlier version, the foundations of which remain visible along its western side. By the end of the 19th century, however, the northern end of this wall had been foreshortened and a new boundary had been added to create the present funnel-like approach to the farm (Ordnance Survey 1900). In the same period the two fields alongside the road to the south of Castle Nook (Figure 29, Nos. 123 and 136) were amalgamated, the removal of the intervening wall carried out so completely that only the slightest indications can now be found on the ground (**P**). The northern part of this combined field now contains the modern byre at Castle Nook, deeply terraced into the hillside, and the extended yards to the south of the 19th-century farm building.

4.2.4 Post-Roman roads and tracks

Roman roads reused

Thomas Donald's map of Cumberland, dated 1774 (see Figure 24) depicts the Maiden Way as an open unenclosed road crossing the high country to the south and west of Whitley Castle. Over the following century, however, much of the route was broken up through the process of upland enclosure, so that when William Bainbridge went in search of the segment south from Whitlow to the Gilderdale Burn in 1851 he found 'all stone taken up' and the route nowhere to be seen. To the north, however, between Whitlow and Castle Nook he found the 'form quite visible, and stone still there but many taken up' (Bainbridge 1855, 45). This may not be as simple a case of survival as Bainbridge's account implies, however, since, as mentioned above (Section 4.1.1, I), the re-establishment of a track along this route between the farms at Whitlow and Castle Nook is demonstrated by its depiction as such on the 1865 Ordnance Survey map (see Figure 30), and reflected in both the visible remains and the geophysical results.

In a similar fashion the Roman road leading to the fort's south-east gate appears to have been maintained as a division between plough-ridged fields, and developed into a well-worn hollow way between the farmsteads within the fort and the settlements at Holymire and Whitlow. Within the fort the *via principalis* doubtless continued in use during the lifetime of the later farmsteads, as it does to this day, providing a route for farm vehicles across the spur; but there is nothing to suggest that the old Roman road persisted in use much beyond the north west gate, presumably because the original crossing on the Lort Burn had ceased to exist. Other less formal paths are apparent in the diagonal lines of movement scored across the eastern corner of the fort (Tr15), perhaps linking Holymire more directly with the later Castle Nook farm, once its predecessor within the fort had been abandoned.

The pre-turnpike road

By the late 18th century the principal road in the area was a sinuous track which ran between the settlements on the western side the South Tyne Valley. This 'old road from Brampton to Alston' as Sopwith called it (1833, 40) is depicted on Donald's 1774 map (Figure 24) crossing the Gilderdale Burn from Wanwood Side and approaching Whitlow from the south before curving northwards around the intake boundary on the western side of the fort. The First Edition of the Ordnance Survey 6-inch map, surveyed in 1861, shows this same road as a track skirting around the moorland side of the intake wall and crossing the Lort Burn some 200m upstream from Castle Nook (Figure 30).

A variety of hollow ways mark variations on this route around the intake wall, where it is still followed by a farm track and a section of the Pennine Way long distance footpath (Figure 23). The road must have developed after the imposition of the intake boundary, although it appears to have incorporated at least one segment (Tr1) from the earlier network of Roman tracks surrounding the fort. The northern section of Tr1 stands out as a particularly worn hollow way, up to 0.5m deep in places, where with the other braided strands of the route (Tr11) it leads into a deep hollow approaching the Lort Burn. The actual crossing point has long since been washed away although a terraced trackway (Tr16) climbs the slope from a corresponding point on the northern side of the



Figure 30. Extract from the 1865 first edition Ordnance Survey 6-inch map (sheet CVIa) surveyed in 1861, showing the reuse of the Roman road to the east of Whitley Castle. Image reduced from original scale and reproduced by permission of the Trustees of the National Library of Scotland. The extent of the earthwork survey is marked in orange.

gully, and matches the route shown on the early Ordnance Survey map precisely. The modern farm track and footpath now turn east before the former crossing, pass through the intake wall and follow the southern side of the burn down towards Castle Nook Farm.

There are several offshoots from northern part of hollow way [TrI](#), some linked to alternative, broadly parallel routes on the slope above, others marking points of departure in the general directions of the mines and quarries along the shoulder of Great Heaplaw. Recent fieldwork for the Miner-Farmer landscapes project suggests that several of the shallow but extensive quarry benches on the slopes some 300m west of the fort relate to the construction of its walls, and it is possible that the origins of some of these routes also lie within the Roman period.

Turnpike and enclosure roads

An Act of 1823 authorised the improvement of roads between Alston, Penrith, Brampton and Hexham and led to the construction of the turnpike, now the A689, along the valley side below Whitley Castle (Mannix & Whellan 1847, 232; Bainbridge 1854, 45). The old road to the west of the fort was superseded, but it was not erased; indeed it was subsequently adopted for improvement as part of the enclosure of the moorland outside the old intake wall. The 1862 enclosure map and award for Whitlaw Common shows not only the layout of new fields across the former Whitlaw commons, but also details a new pattern of trackways leading to these fields, to the mining operations, and to various smaller enclosures set aside as public quarries and for stockpiling mining materials and coal (see Figure 31). The principal roads shown on this plan were certainly laid out on the ground. The modern farm track which overlies the southern part of the pre-turnpike road within the survey area is aligned on a section of 'private carriage drift or occupation road 24 feet in width' between the place marked 'V' on the 1862 map and a point mid way between 'X' and 'P'. From this point the 'occupation road' turns to the north-west, away from the line of the pre-turnpike road and intake wall, and runs across the lower slopes of Whitlaw Common, where it meets second road at point 'P' on the 1862 map (outside the survey area) that leads to a rudimentary bridge or causeway across the Lort Burn. This road also remains active as a farm track.

Other details shown on the enclosure map are less evident on the ground. The small rectangular enclosure attached to the head dyke wall, marked as plot No. 27, was intended as a 'public quarry for fence building and other purposes within the manor of Whitlaw'. There might be slight suggestions of this plot on the ground, if scarp [55](#) and the bank [54](#) belong to this feature rather than some earlier field system. However, despite that fact that the site is marked 'Old Quarry' on the 1926 and 1951 editions of the Ordnance Survey, there is little physical evidence of quarrying, suggesting that any hollows have since been infilled. The short link road marked on the map from quarry to the enclosure road (Figure 31 'O' to 'N'), if built, cannot now be found. But the adjacent link, depicted as 'V' to 'W' on the enclosure map, was certainly created, and is now followed by the present farm track east of Holymire. Two further links, presumably intended to converge on a single point (Figure 31 'X') from the gates of two separate fields inside the intake wall, do not appear to have been constructed as such; however, they may be reflected in the irregular hollow ways [TrI7](#) and [TrI8](#) seen on the modern

survey. One of these (Tr17) is still linked to a functioning gate; the other appears to have been made unnecessary by the amalgamation of the fields to the south of the fort.



Figure 31. Extract from Map A of the Inclosure of Whitlaw Common in the Manor of Whitlaw (NCO QRA 58 Map A) Surveyed by John Salkeld in 1861 (see Figure 29 for the complementary map of the enclosed lands within the intake wall at Whitley Castle).
Reproduced with the permission of the Northumberland Collections Service.
The extent of the earthwork survey is marked in orange. A north arrow has been added.



Figure 32. Aerial photograph taken in 1971 (BEW20) showing Whitley Castle from the south. Note the multiple tracks which compare with those shown on the 1861 enclosure map (Figure 31), the line of mining scars and shake holes on the slopes to the west (left) and the hollow in the corner of the improved pasture to the south, near the bottom of the frame. (Copyright reserved Cambridge University Collection of Air Photographs).

Mining and quarrying.

Various minor tracks depart from the pre-turnpike road in the general direction of the mines and quarries situated around the head of the Lort Burn and along the 400m contour above and some 300-500m to the west of the fort (see Figure 32). The majority of these workings, clustered along a sandstone outcrop, are coal levels, though there are also extensive stone quarries which, as mentioned above, are the likely source for the Roman walls. Below this, outcrops of limestone have been quarried both for

building stone and to supply local limekilns. The enclosure map shows a formalised route to the mines, as well as a number of quarries and other plots set apart for mining-related activities. These include the small public quarry adjacent to the intake wall, mentioned above (Figure 31 No. 27), and two further plots: No. 28, a public quarry intended for road repairs and to supply lime kilns in the parish, and No. 23, which is described as:

'a public coal bank and depot for depositing and loading coal and other materials which are necessary for the pit or pits along with the coal and for depositing any other article or material necessary for the due management and working of the said coal or for the carting away of the same...to be worked by the owners and occupiers of the lands and premises within the Manor of Whitlaw for their own use but not for sale' (QRA 58 Award)

Neither of these last two plots can be found on the ground, although it may be that they were not physically enclosed, but merely indicate areas where quarrying, mining and related activities were already taking place. The route which links plots 28 and 23 and continues northward on the map certainly exists (Figure 31 routes I – J and H onwards). It was probably already old when it was drawn on the enclosure map, although it may have been formalised and improved around this time. Its function is implicit in its name: the 'Whitlaw Coal Road'.

The most notable mining feature in the vicinity of Whitley Castle (but outside the survey area) is undoubtedly a very large finger dump projecting from the hill side below a level cut into the sandstone outcrop some 300m to the south-west of the fort. This does not appear on the 1865 edition of the Ordnance Survey map, but it is shown on following editions, marked as a 'Lead Level' in 1899, and as an 'Old Coal Level' in 1922. Lead-processing waste is clearly in evidence around the foot of the dump. Unaccountably, this spoil heap was at one time considered as a possible Roman signal station (Selkirk 1987, 31), and this interpretation is still attached to the entry in the county's historic environment record (HER No.5947).

In general, while there is plenty of documented evidence for lead mining on this side of Alston Moor, very little appears to have occurred in the immediate vicinity of Whitley Castle. In the 18th- and early 19th century the principal mines lay to the east of the South Tyne, following the 'Ayle Burn', 'Clargill' and associated mineral veins, as well as to the south, along the 'Horse Edge' and 'Park' veins beyond the Gilderdale Burn (Fairburn 1993, 35-37, 157-8; Dunham 1990 118-121). Lead workings to the west of the river and north of the burn are sparse in comparison, reflecting a somewhat different geology and a commensurate scarcity of ore-bearing rock (Dunham 1990, 54-5, 78-81, 118-19). Nevertheless, there are other indications that lead prospection took place in this area. Within the defences of Whitley Castle itself there is evidence for three exploratory shafts. The most prominent of these is marked by a narrow bank of upcast around the infilled head of a shaft (**S**) sunk into the terrace immediately below and to the east of the southern corner tower (Figure 33). The bank is no more than 1.5m across and 0.35m high which, even allowing for erosion, represents a quite limited excavation, and the absence of 'deads' or processing waste nearby suggests nothing was found to merit a serious endeavour. A second shaft (**T**) is indicated by a similar hollow with a corresponding ring of upcast located just inside the fort, across the southern end of the

second, bastle-like building (F). A smaller hollow (U) sunk into the berm just outside the south west entrance, may be a third shaft, although if so, the almost complete absence of upcast suggests that it was quickly abandoned, perhaps in favour of the adjacent shaft inside the fort. The most logical explanation for these shafts is that they were dug to test the area for a productive mineral vein, and abandoned when none was discovered. Shaft T was dug into the footprint of the bastle-like building F presumably after abandonment and demolition, perhaps in the later 18th or 19th century. Three similar prospection shafts, again lacking any significant upcast or processing waste, form a short line ascending the hillside to the west, close to the later lead level, outside the survey area.

At the south-west of the survey area between the Pennine Way and the curving intake wall, a series of scoops into the shallow slope (V) mark the position of a sizeable hollow shown on aerial photographs before this field was greatly improved (see Figure 32). It is unclear when this pit was dug, except that it clearly truncates the post-Roman boundary 2 and appears to have removed part of the pattern of small plots and field boundaries (65) in this area. It is equally unclear what material was being sought here. There is nothing to suggest the extraction of coal or lead, and it may simply have been dug to extract soil for use elsewhere.



Figure 33. The infilled mine shaft (Figure 44, S) at the southern corner of the fort, viewed from the north.

5. DISCUSSION

Before the fort

If Whitley Castle is correctly identified as the *Epiacum* of Ptolemy's *Geography*, then the name may be taken to imply that some form of native settlement (the property of *Eppius*) existed in the immediate vicinity prior to the fort's construction, or indeed on the very same site. This possibility was born in mind during the fieldwork, although early suspicions that the outer western rampart retained elements of a pre-existing earthwork were quickly discarded, once the evidence for the sequential development of the defences became apparent.

Existing reports provide very little information about the nature of native settlement in this locality immediately prior to the arrival of the Romans. The Historic Environment Records for Northumberland and Cumbria list possible examples of late prehistoric enclosures below Grey Nag, some 4km west of the fort, near Low Thornhope, 2.5km to the north, and at Glassonby, 9km to the south west; but none of these have been examined in detail (NHER 5999, 13106; CHER 3924). More recently, however, as a result of the 2009 magnetometer survey and the rapid earthwork surveys carried out under the broader Miner-Farmer Landscapes project, some discoveries have been made much nearer to the fort. A cluster of earthworks located about 100m south of Holymire appears to contain elements of a small 'scooped settlement' typical of the later Iron Age or Romano-British period (Figure 44), and an oval enclosure located 250m further to the south-east (some 200m south of Whitlow) is an even more convincing example of this form of settlement (Ainsworth, forthcoming). There are traces of field boundaries along the moorland edge adjacent to the southern settlement but, given the intensity of subsequent farming activity around Whitlow, it is difficult to determine whether similarly associated features continued northwards into the immediate vicinity of the fort. Other fields, potentially prehistoric in origin, have been identified alongside the fort, principally on its northern side where the pattern of enclosures associated with the approach to the north-west gate appears to be superimposed over a series of larger and more sinuous terraces. On present evidence, however, it is impossible to say whether these fields were long abandoned when the Romans arrived, or if they remained in use up to and even beyond this point. If they did precede the fort, then a question about the location of the associated settlement remains unanswered. Perhaps traces of earlier occupation remain to be discovered on the summit of the knoll, beneath the Roman fort. At the time of writing a total of six late-prehistoric or early Romano-British settlements have been identified through the Miner-Farmer Landscapes project within 4km of Whitley Castle, several of which are accompanied by extensive field systems (ibid). This rapidly emerging picture of a busy pre-Roman landscape provides elements of a context for the imposition of the fort and, given the density of the settlement pattern, adds weight to the possibility that the Whitley Castle knoll may have been previously inhabited.

The recent earthwork and geophysical surveys have revealed nothing to suggest a Roman presence on the knoll before the construction of the stone-built fort, which Shaw's excavation revealed as the earliest phase, built in the early 2nd century over a surface stripped bare to subsoil. This poses something of a conundrum. Although Ptolemy's

Geography was written in AD140-50, it appears to draw heavily on the work of Marinus of Tyre, who was describing the situation in northern Britain shortly after the Agricola campaigns of AD 80-84 (Rivet and Smith 1979, 103, 114). Therefore, if Whitley Castle is the *Epiacum* mentioned by Ptolemy (ibid 119, 360) it would be reasonable to suppose that it existed as a place of some significance in this earlier period; that is, before the fort appears to have been built. For reasons explored below, it seems unlikely that Roman military occupation of the North Pennines would have lagged far behind the annexation of the Brigantian territory around AD 71-4. This leaves three possibilities. The first is that the identification of *Epiacum* is incorrect and the fort was not constructed until early in the 2nd century, prior to which time control over this area was exercised by mobile forces based at Carlisle, Kirkby Thore or latterly (by AD 80-90) along the Stanegate forts, Carvoran in particular. The second possibility is that the stone walls were a direct replacement for earlier walls in timber and turf. However, whilst it might be argued that traces of an earlier turf wall were absent (or missed) within the narrow confines of the 1956-7 excavation trench, the artefact record does not hold out much promise of a significant earlier phase. Only a single fragment of coarseware pottery which might conceivably have predated the stone fort was found, and even that was of a form which remained current into the early 2nd century (Shaw 1958, 195, 199). The third possibility is that Whitley Castle was not the earliest military base along the Maiden Way. No other forts or encampments are known today, but Hodgson (1840, 77) reported the former existence of something which he described as 'an oblong right-angled fort..., the Vallum of which was formed of earth and loose stones' on Lintley Hill, a limestone hillock next to the line of the Roman road, some 2km to the north of Castle Nook Farm. The feature which Hodgson described had been reduced by quarrying even then, and certainly nothing to reflect the scale of a Roman fort remains visible today. Without a clear record of its former dimensions any suggestions that this was the precursor to Whitley Castle, or indeed a marching camp, or a practice camp built by the Whitley garrison, must remain entirely speculative.

Positioning the fort

Whitley Castle stands broadly mid-way along the Maiden Way, separated from the forts at either end by no more than a single day's march, which would explain the apparent absence (aside, perhaps, from Lintley Hill) of any temporary encampments along the way. The position is not quite central, however. The builders avoided the higher, more exposed landscape around the true mid-point near Scarberry Hill, and chose instead to place the fort on lower ground, in relative shelter, at the point where the road descended into the South Tyne Valley. It is not difficult to imagine that the shorter route northwards along the undemanding valley road to Carvoran and the Stanegate would have seen more frequent use than the longer road over the high country to Kirkby Thore, especially in the winter months. Despite this lower elevation the fort still occupies a locally-prominent position, doubtless chosen to control movement within the South Tyne valley and to afford long views northwards towards the Tyne Gap (see Figure 34).

It is not unknown for the Roman military to execute rather peculiar plans in order to make best use of the local topography. The irregular polygon of the supply base at Llanfor, adjusted to fit the promontory above the River Trywern in Gwynedd, is one such

example, the six-sided fort built to match the plateau above the Kirk Beck at Bewcastle to the north of Carvoran is another (Frere & St Joseph 1983, 105-6; Johnson 1983, 287-8). Trapezoidal forms are not uncommon in the outline of marching camps, including the Northumbrian examples at Featherwood West, within the angle between Dere Street and the Cottonshope Burn to the north of High Rochester, and at Hartburn, near the junction of the Devil's Causeway and the Hart Burn, north of Morpeth (Welfare & Swan 1995, 97-100; Gates & Hewitt 2007, 15-17). Forts too, such as those at Brough by Bainbridge in North Yorkshire, Burgh Castle in Norfolk and Bothwellhaugh in Lanarkshire, frequently adopted mildly trapezoidal forms in respect of topographical advantages or constraints (Richmond 1930, 31, 49-50; Jones, 1975, 128; Maxwell 1975, 21). No other fort in the empire, however - not even the evocatively named 'Fort Parallelogram' at Seba Mgata in Algeria (Fentress 1979, 90 & Figure 7) - demonstrates this process of adaptation to quite the same degree as Whitley Castle, where the knoll presented an awkward shape but an ideal location in terms of local prominence and the potential for defence.

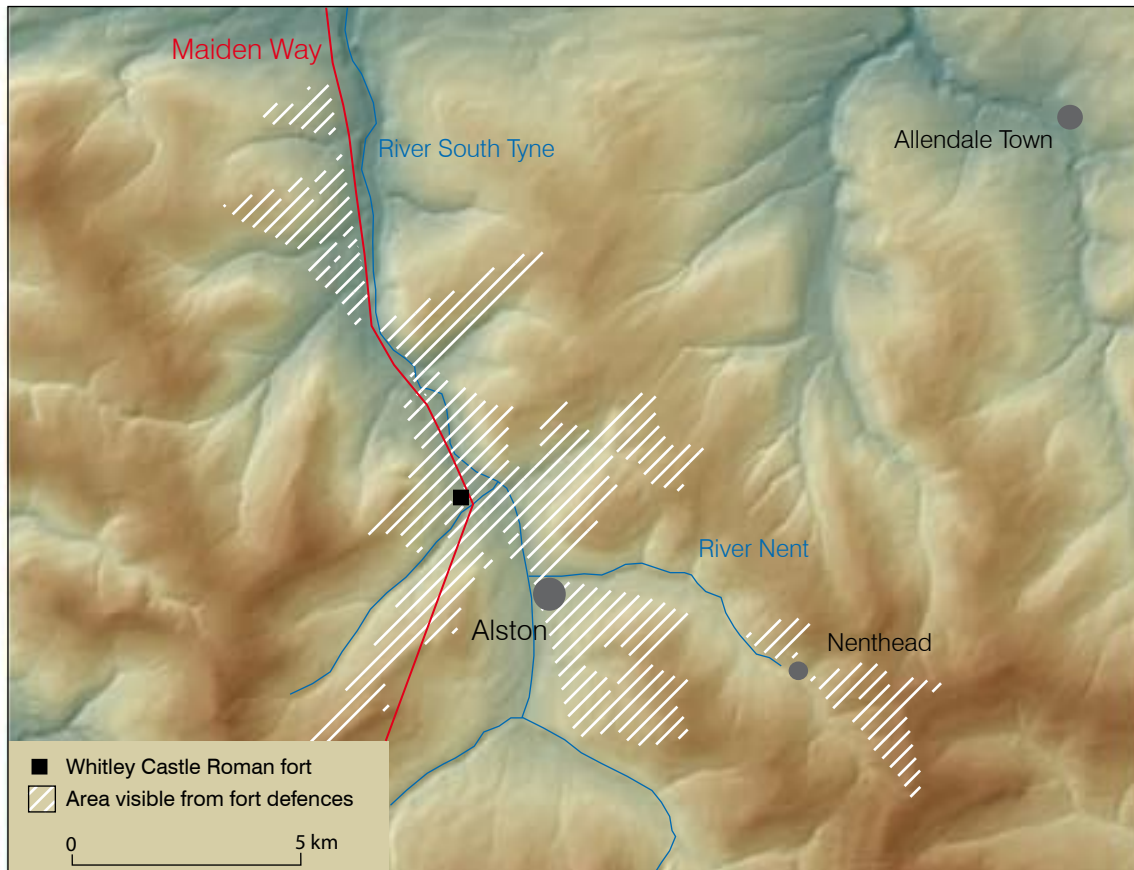


Figure 34. This plan indicates the visual command of the fort over the surrounding landscape, on the assumption of minimal tree coverage and allowing for gate structures and towers which stood at least 3m above the collapsed remains of the fort wall (after Gander, Oakey and Pearson 2009, 23).

The fort wall was positioned, with great precision, to take maximum advantage of the slopes on the three outward faces of the knoll, adopting a near perfect rhomboidal plan to make best use of its oval crown. The difficulty thereafter was to reconcile this awkward outline with a grid-like layout of buildings within. Within the fort the dominant, but not necessarily primary, layout of buildings appears to have consisted of the central range - headquarters, commander's house and granary - flanked by four quite large barracks in the front and six smaller barracks to the rear. The front portion of the fort appears to have presented few problems. Here, four barracks are aligned with the north east wall and seem to fit quite comfortably within the quadrants defined by the *via principalis* and *via praetoria*. These conflicting angles could not be resolved so simply along the *laterae praetoria*, however, since the building at the core of the fort, the headquarters, could not be made to fit both alignments without itself acquiring a slanted plan. Such plans are known from several other forts: at Brough by Bainbridge, at Hod Hill in Dorset and at Strageath on the Gask frontier, for example (Collingwood 1930, 47; Johnson 1983, 129). But this approach was not adopted at Whitley Castle. Instead, the headquarters building seems to have taken its alignment from a conceptual, or indeed visible line between the centre of the *porta praetoria* to the east and the shrine at the rear of the cross hall. As a consequence, the entire structure was rotated so that the front courtyard wall ran slightly askew to the *via principalis*, and the side walls, at right angles to this frontage, also lay a few degrees out of alignment with the long sides of the fort. The building to the south, identified as the *praetorium* or commander's house, shared this orientation, and there is some indication that its frontage may have been stepped back from the *via principalis* to accommodate a similarly divergent angle. In light of this it is worth noting that the angle of the north wall of the granary recorded by Shaw, although clearly at odds with that of the fort wall (see Figure 7), is in complete accordance with that of the headquarters, suggesting that it too derived its orientation from this central building. To the rear of the fort, curiously, rather than adopt the approach seen in the front and replicate the angle of the south west wall, the barracks in the *retentura* appear to share the compromise adopted for the headquarters and the other buildings of the *latera praetorii*, acquiring a peculiar alignment which is neither that of the long nor the short axis of the fort.

Another point worth noting in relation to the internal buildings, front and rear, is the complete absence of clay tile, not a single fragment of which was found among the many molehills dotted across the site. Strong magnetic signatures within the fort might indicate the presence of tile (Hale 2009, 10), but equally could reflect a concentration of nails, or a preponderance of burnt material amongst the collapsed remains. However, as Shaw's excavation report also makes no mention of tile fragments it seems reasonable to conclude that this was indeed a rare commodity at Whitley Castle. Stone slates, locally ubiquitous in subsequent centuries, are likely to have been employed within the fort, and later thoroughly robbed. Alternatively, we might speculate that organic materials - wooden shingles, turf or thatch - were used for those buildings which were not particularly vulnerable to fire.

Construction and adaptation

At present the earliest construction appears to be that of the main fort wall together with the intervallum road and associated 'Period I' building revealed in the 1956-7

excavations. Beyond the assertion that all this stood before the fire (which he equated with the Maetae revolt of the AD 197) Shaw was unable to establish a more precise date. *Terra sigillata* fragments within the layer that preceded the fire and overlay the tail of the rampart appear to suggest an earlier rather than later 2nd-century origin, in keeping with almost all the forts in this region which were built *de novo* or rebuilt in stone, although there is absolutely no certainty on this point (Shaw 1959 191-202; Jones 1975, 97-8; Bennett 1985, 12). Frere and St Joseph's suggestion, based on an aerial view, that the fort once had been smaller in plan with a north-eastern rampart much on the line of the later *via principalis* (1983, 119), can no longer be sustained. Aside from the lack of any geophysical evidence for a ditch beneath either the road or the *praetentura*, it is now entirely clear that the different character of the defences to the north-east of the *via principalis* is simply a consequence of differential erosion caused by medieval ploughing. It has also been shown that the bath house at the northern corner was constructed over the complete suite of ramparts. It was not, as Frere and St Joseph suggested (*ibid*, 119), built outside an early fort and later embraced by the extended defences.

The gateway structures, corner towers, interval towers and the suggested latrine on the north-east wall, may well be seen as integral to this initial phase of stone construction. Other aspects are less certain. Shaw's 'Period I' wall indicates a building to the south of the intervallum road for which we have little information, yet it appears to have occupied much the same space as the later granary, which Shaw identified as belonging to the 4th century, although his published stratigraphy indicates an earlier, possibly 3rd-century date. It is even possible that this granary was the direct replacement for an earlier version destroyed by fire in the late 2nd century. There are few other likely locations for such a structure within the original layout of the fort, and there is no doubt whatsoever that such a building would have been a requirement of the original design (Tacitus 73, Bidwell 1997, 86).

The peculiar angle of the later granary wall, and to a lesser extent that of the Period I wall (Figure 7) indicates that both were aligned to match the orientation established for the headquarters which, in the absence of any contradictory features, may well have been built in the earliest period of stone construction. The rear portion of the headquarters, however, shows considerable alterations, including an extension running behind the rear suite of rooms. Whether this elaboration relates to the common period of such changes in the late 2nd or 3rd century, or to a still later episode of adaptation, as at Housesteads and Vindolanda (Johnson 1983, 132; Crow 2004, 98), remains to be seen. The courtyard house on the south side of the headquarters is not necessarily the first structure in this location, although no contrasting outlines are apparent. In its most complete form, however, it too shares the particular alignment of the headquarters, indicating contemporary or subsequent construction.

The area to the rear of the granary is perhaps the most difficult to interpret on the basis of the available evidence. The earthwork and geophysical evidence suggests a complex pattern of rebuilding which extended north from the headquarters, blocking the *via decumana* and absorbing most of the available space between the granary and the adjacent interval tower. The impression is of a series of small chambers, connected to or perhaps overlying the footprint of the nearest (north eastern) barrack block. They

may represent a version of the clustered workshops (*fabrica*) or hospital (*valetudinarium*) ranges seen at forts elsewhere (Johnson 1983, 161-5, 185-7), perhaps more cramped than usual owing to the confines of the knoll. When precisely these buildings were constructed, and to what purpose, are matters which must await more intrusive methods of investigation.

The disposition of barracks is particularly interesting. It is not possible to state with absolute confidence that all ten barracks were built in a single phase, or were contemporary in use. However, if the full complement did operate at one time, it would have borne a striking similarity to the arrangements at Wallsend and South Shields in the Hadrianic and Antonine periods, recently recognised as providing accommodation for one of the most common forms of auxiliary unit – the *cohortes quingenaria equitatae* consisting of about 480 infantry divided into six centuries, and 128 troopers arranged in four cavalry squadrons or *turmae* (Hodgson 2002, 887-89). At Wallsend and South Shields the infantry appear to have been housed in standard fashion within six barracks in the *praetentura* of each fort. The *turmae* occupied the four larger barracks set within the *retentura*, organised, it is supposed, with three troopers and their mounts in each of the nine larger *contubernium*, and the decurion, junior officers and their mounts accommodated together at the end of each range (ibid). The situation at Whitley Castle appears similar, but in reverse, with the four larger barracks positioned in the front of the fort and the six narrower barracks to the rear. This interpretation of the accommodation and hence the type of garrison at Whitley Castle is quite compelling, not least as this would seem to represent the most effective unit for the control of the surrounding terrain. But it is not without difficulties, the greatest of which is the small scale of the fort. Based on a sample of 81 forts capable of supplying full dimensions and details of their occupants, it has been suggested that the normal fort size for a mixed cohort of this nature lay between 1.97 and 2.59 hectares (Bennett 1986 707-16); though this cannot be taken as a particularly reliable guide, given that the recently proven examples at Wallsend (1.64 ha) and South Shields (1.67 ha) both fall rather short of this range (Bidwell and Speak 1994, 17; Hodgson 2002a, 11). There can be little doubt, however, that at only 1.25 ha, Whitley Castle would have been an exceptionally tight fit for such a substantial contingent of men and mounts. Perhaps the only way to contain such a garrison without expanding the plan beyond the natural limits of the knoll was to place the cavalry barracks in the *praetentura*, thereby allowing deployment directly to the *via principalis*, without the need to enlarge the *via quintana* in the manner seen at South Shields and Wallsend (Hodgson 2002, 880). The incidence of ‘moss of the species *hypnum squarrosum*, and straw of some species of grain, both used as the bedding of horses’ found when digging into the midden heap near the north gate in 1828 (Hodgson 1840, 76), is interesting in this context. However, even if this material does indicate the presence of stables, there is no doubt that many horses – mounts for officers and couriers, and pack animals – would have been required for daily use, and it is therefore no confirmation for the existence of cavalry.

The Second Cohort of Nervians, who made up the garrison at Whitley Castle in the early 3rd century are not thought to have been mounted, although a detachment of Nervians might have been deployed alongside *turmae* from another unit. It is interesting to note that the same cohort was present in some form at Wallsend when that fort

was similarly configured during the 2nd century (RIB 1202, Holder 1982, 119-20). The identities of earlier, or indeed later garrisons at Whitley Castle are not known. The Hercules pedestal was dedicated by a centurion of the Sixth Legion, and cannot be earlier than the arrival of that unit in Britain in AD 122 (RIB 1199). Bosanquet (1924, 253) suggested that the script was typical of the 2nd century, and wondered whether this Gaius Vitellius Atticianus, who must have been present in a specialist role, served as the commander of the auxiliary force. Soldiers from the Twentieth Legion were responsible for the reconstruction of some element of the fort according to one inscribed stone (RIB 1204) and it is possible that the lost 'Pegasus' stone (Appendix 1) marks the similar efforts of a detachment from the Second Legion Augusta, although neither can be dated. The altar to Apollo/Mithras (RIB 1198), dedicated by an officer of the Nervians (not necessarily the Second Cohort) is unlikely to be earlier than the mid 2nd-century coin of Faustina found incorporated within it; indeed it is more likely to be somewhat later, in keeping with the diffusion of the cult of Mithras across the empire and into the further reaches of the military frontier (Henig 1984, 97-109; Beck 1998, 115-28).

Defences

One of the most striking features of the fort is the elaborate series of ramparts along the south-western arm. The stone fort may have been equipped with two circuits of ramparts initially - an unexceptional configuration in keeping with the majority of forts constructed before the Antonine advances of the mid 2nd century (Jones 1975, 112; Breeze 2002, 883) - marking a consistent width of 15-17m around the entire circumference. The third rampart appears to have been subsequently added to the north-west, north-east, and perhaps also to the south-east sides, perhaps requiring the slight revetment noted in Shaw's excavation along the outer edge of the second bank (Shaw 1959 198).

In a subsequent elaboration, the third rampart was extended outwards creating the bulge on the south-western side of the fort flanked by a fourth rampart which also extended along the north-west, and part-way along the north-east arms. This outer bank appears to have been somewhat over-emphasised towards the centre of the south-west arm, perhaps in order to flank an outer entranceway. Alternatively, this build-up of soil may reflect nothing more than the amassing of materials prior to a further phase of construction which was never completed. The date at which this expansion took place is not known, although it undoubtedly supplanted parts of the extra mural settlement situated along the *via decumana* and outside the south corner of the fort - in much the same way that Housesteads and Carrawburgh are known to have expanded over adjacent areas of settlement (Welfare 2009, 239-43). At around the same time a series of modifications and elaborations were begun within this new enclosure, narrowing the spacing of the innermost lines, and adding three further ramparts to fill all the remaining space; work also began on the separation of the fourth bank to form a fifth rampart along the western arm. All of this activity appears to have been abandoned at quite an early stage, however, and never resumed. Instead, in a final phase, the fort's south-west gate appears to have been closed and the approach road blocked by joining together the banks and ditches of the more complete ramparts.

Why any of this elaboration took place is, of course, rather more difficult to explain. The inner two ditches capitalise on the steep contours of the knoll and fall well within the accepted range of the javelins (25-30m) which are likely to have been the main weapons of the defending force (Jones 1975, 113; Johnson 1983, 48). Given the height advantage enjoyed by the defenders, this range would certainly have encompassed the additional third and fourth ditches. But it is unclear what advantage these further defences conferred, since in order to remain open to view from the wall the outermost ditch on the north side (as revealed in Shaw's excavation) was clearly too shallow to act as a serious barrier without the addition of some further obstacle (see Figures 8 and 18). In this regard is perhaps worth noting that the midden deposits explored by Hodgson in 1828 contained a quantity of 'stakes that had been pointed with an ax (sic), still standing upright' (Hodgson 1840, 76). Robertson (2007, 20) interpreted these as a means of preventing the refuse pit from being used for concealment by an attacking force, using a similar technique to the rows of pits (*lillia*) which Caesar famously deployed during the siege of Alèsia in Burgundy in 52 BC, examples of which have been excavated at various locations along the Antonine Wall and Hadrian's Wall (Bidwell 2005, 53-75). It may be, however, that what Hodgson exposed was not an isolated pit, but rather the base of the outermost defensive ditch, strengthened with an entanglement of sharpened stakes in a manner suspected at forts elsewhere (Jones 1975, 113-4). Part of this entanglement may then have survived in waterlogged condition, amidst the shoes, straw and other rubbish deposited in the ditch up to the time when it was completely buried beneath the platform created for the bath house.

The final expansion of the ramparts to the south-west is too small and irregular to qualify as a fort annex, nor the adaptation of an earlier annex attached to an fort with only two ramparts. A more probable explanation is that the outwork was created principally to enhance the defences on this side of the fort, compensating for the absence of the natural advantages of height and slope elsewhere around the knoll (Frere & St Joseph 1983, 87; Bailey 1994, 299-314; Breeze 2002, 883-4). Although there is little practical purpose evident in the scale of this expansion (it would have taken the furthest defences well beyond the range of normal auxiliary weapons capable of being launched from the fort wall) perhaps it was intended more as a show of strength, lending the fort a more intimidating aspect when viewed from the high ground north and west. The abandonment of this work before completion could indicate the fort was lost or that the garrison was withdrawn at short notice. This might equate with the unrest towards the end of the 2nd century, or with the uprisings following Allectus' withdrawal of troops at the end of the 3rd century, although an unreported local conflict or tactical decision could equally have brought about the same result. When occupation of the fort resumed, it was clearly not thought necessary to complete this work, but merely to close the south-west gate and presumably abandon (if it had not been abandoned long before) the portion of the *vicus* on this side of the fort. Leaving the defences in such an incomplete state, with an outer rampart of more value to an attacking force than to the defenders, could be interpreted as a sign of weakness or indecision on behalf of the later command. Alternatively, as has been suggested in relation to the denuded defences at Ardoch (Breeze 2002, 884), such a state of affairs might point to precisely the opposite conclusion – that the state of the fort's defences was a matter of complete indifference for a commander who was supremely confident of military superiority. The apparent

disregard for the effectiveness of the fort's defences, evident in the construction of the bath house over the northern ramparts, would seem to support this latter view. The bath house is undated, but it may belong to the same period of renewed occupation, perhaps built to replace a predecessor destroyed during the elaboration of the defences outside the west gate. Once again, as a matter of pure speculation, it may be that this weakening of the defences reflects a period of relative peace and security, such as may have arisen following the strengthening of the military frontier after Severus and Caracalla's northern campaigns in the early 3rd century.

The *vicus*

The development of extra-mural settlement alongside more than one access road is not an uncommon feature amongst Roman forts, although the occurrence of such beside the *via decumana* is considered unusual (Sommer 1984, 43-5). At Whitley Castle, settlement along the *via decumana*, and along the north-west arm of the fort, may have been attracted (or directed) to the sides with the greatest opportunities for trade and services, perhaps at a time when the busiest routes led northwards toward Hadrian's Wall. In addition, however, it is possible that some factor constrained development across more suitable areas for settlement on the fort's southern flank, forcing this activity northwards towards the rear gate and elsewhere (see below).

The western *vicus* appears to have been principally composed of narrow building plots, arranged with their gable ends toward the road, not unlike the pattern of ribbon development seen at Housesteads, Vindolanda, Birdoswald and elsewhere (Sommer 1984, figs 6 and 7; Biggins and Taylor 1999, 106; Crow 2004, 79). This arrangement may be associated with a separate, but similarly aligned complex, tentatively identified as a bath house, which lay just beyond the fort's southern corner. The final expansion of the western defences encroached on both of these extra-mural areas, signalling a demise which may eventually have led to the closure of the road, and ultimately to the development of the bath house at the northern corner of the fort.

The second area of settlement, to the north of the fort, may have been linked to that to the west by a series of tracks and only later separated by the masking effect of boggy ground, but it does appear quite distinct in several ways. It contains the elaborate building above the western corner of the fort, which may represent a *mansio* or some other notable structure, but there appears to be no other significant settlement nucleus, except for that identified solely by geophysical evidence on the north side of the road between the *porta praetoria* and the Maiden Way. The majority of enclosures which run down the slope to the north of the fort appear to be little other than unoccupied paddocks or agricultural plots, lent a grid-like appearance by the underlying pattern of earlier terraced fields. The building platforms which have been identified in this area are set well-apart within individual yards, mainly along the foot of the ramparts, and do not conform to the orderly ribbon-development or street-network patterns normally associated with *vici* (Sommer 1983, 45). It is not known when this part of the settlement first developed. Given the likelihood that the temple which housed the mithraic altar lay just a stone's throw from the northern corner of the fort, the plots in this area may have encompassed a religious dimension. It may be that some have also been impinged

upon by the bath house platform, although the evidence for this is far from conclusive. Elsewhere, to the west of the north-west gate, the boundaries of several plots overlie the outermost rampart and must, therefore, have been built or extended after that final stage in the fort's development.

It is interesting to speculate that the accumulation of domestic debris unearthed near the bath house in the early 19th century may relate as much to the *vicus* as to the fort. Among the artifacts recorded were a great number of shoes, including examples which appear from descriptions to have belonged to both women and children (Sopwith 1833, 39). While this evidence is far less detailed and compelling than similar discoveries in the *contubernia* at Vindolanda or the ditch terminal at Birdoswald, it is nonetheless possible to speculate that these items reflect the more balanced society which emerged on military sites from the early 3rd century onwards (van Driel Murrey 1987, 32-42; Hoffman 1995, 110; Mould 1997, 326-8).

A parade ground?

It is generally believed that the majority of auxiliary forts would have been equipped with a parade ground (*campus*) where troops could be mustered for drills, training and ceremonial activities (Johnson 1983, 215). Convincing identifications of parade grounds adjoining forts are, however, limited in number. In Britain the best known are those at Hardknott Castle in Cumbria and at Tomen-y-Mur in Gwynedd, where level rectangular areas of about 1.3ha have been found within a few hundred metres of the ramparts, each accompanied by a conspicuous mound believed to be the review-stand or *tribunal* for the presiding officer (ibid 217; Frere and St Joseph 1983, 108-9). More recently excavations at South Shields have allowed the tentative identification of a parade ground adjacent to the later Antonine stone fort, and a combination of excavation and survey has demonstrated that a large enclosure of 1.9ha may have served as a training ground related to the large fort or vexillation fortress at Alchester, Oxfordshire (Bidwell and Speak 1994, 14-15; Sauer, Crutchley and Erwin 1999, 291-93). Other *campi*, at Slack near Huddersfield, Maryport and Ambleside in Cumbria, Chester-le-Street in County Durham, Gelligaer in Mid Glamorgan and Housesteads have been identified chiefly from the existence of cleared areas, seemingly devoid of structural remains; whilst dedications related to parade ground activities have been found at Birdoswald and Benwell on Hadrian's Wall, Newstead in the Scottish Borders, and Cramond near Edinburgh (Johnson 1983, 217-19; Hodgson 2004, 2; Mason 2004, 4)

At Whitley Castle attention is drawn to the area immediately below the southern defences, to the west of the road leading to the south-east gate. This area comprises the largest expanse of comparatively level ground, approximately 1.8ha in extent, found anywhere in the vicinity of the fort. From east to west the ground rises by little more than 6m over a distance of 130m. From north to south the ground drops by only 3m from the foot of the knoll to the Holymire track and continues level thereafter for a further 70m. This area could easily have accommodated a parade ground on the scale seen elsewhere, and from the point of view both of the terrain and the ease with which troops could be mustered from either the south-east or south-west gates, it would appear to be a logical choice.

In his study, Sommer (1984, 43) established that the overwhelming preference for the locations of military *vici* was to the south of their respective forts. The west was less preferred, and the line of the *via decumana*, regardless of orientation, was generally avoided, except where all other options were constrained, as in the case of some of the forts along the Hadrian's Wall and the Antonine Wall. The presence of a parade ground could be the reason why settlement is absent from the sheltered, level and well-watered location on the south side of Whitley Castle. Later ploughing might account for the absence of settlement earthworks in this area, although buried evidence, if present, would be expected to survive beneath the pronounced ridges. The geophysical evidence, however, supports the same conclusion that little of substance existed across this area before the onset of cultivation in the later medieval or post-medieval period. The only exceptions are a group of anomalies indicating the presence of a square, 15m-wide enclosure positioned at the foot of the ramparts. Located roughly in the centre of the highest side of the putative parade ground, this single feature (Figures 42 and 43, 63 and Figures 44, 45 and 47) clearly pre-dates the ploughing, and may be identified, very tentatively indeed, as a potential *tribunal*.

Whitley Castle and the pursuit of minerals

Collingwood's comment, that 'forts are made for the sake of roads, not the other way around', provides a debatable, but nonetheless useful starting point for a discussion about the function of Whitley Castle (Collingwood 1937, 10). The Maiden Way runs northwards along the sheltered and low-lying route of the South Tyne Valley towards Carvoran (*Magna*). To the south, however, the road takes a more tortuous path, that of a typical mountain road according to Collingwood (*ibid*, 1), rising to a height of some 670m and crossing some of the most inhospitable moorland in England, before descending the Eden escarpment to Kirkby Thore (*Bravoniacum*). It is difficult to see a justification for such a route in purely military terms. If the intention had been to impose Roman control across the North Pennines and enable rapid movement between the Stainmore Pass and the Tyne Gap, then a road along Weardale or Teesdale would have been far more central and direct. As a 'short cut' over the eastern side of the Pennine *massif* the Maiden Way makes even less immediate sense, since this road would always have been considerably more arduous than the route via Carlisle, and almost certainly impassable in the winter months. If the purpose of the fort is to be found in the function of the road, therefore, a more specific goal is required. For some years now, scholars have argued that this goal, given the later history of the Alston area, was the acquisition of minerals - specifically lead and silver ore.

According to Tacitus, mineral wealth was one of the particular objectives which prompted the Roman invasion of Britain, and there is little doubt that they were quick to exploit these resources whenever territory came under their control. The Roman mines of the Mendips were in production soon after the conquest, the mines of North Wales were active in the reign of Vespasian (AD 69-79), those of Yorkshire slightly afterwards, and the mines of Shropshire and Derbyshire were in business from the time of Hadrian (AD 117-38) if not before (Raistrick and Jennings 1966, 1-2). The North Pennines orefield is unlikely to have been an exception. In later centuries it was to become one of the most productive lead mining areas in the country. In 1772, for example, over 7,500 tons

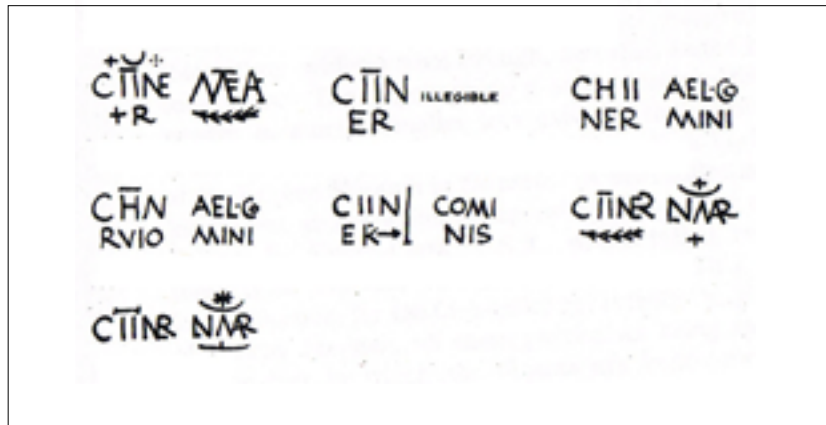


Figure 35. The lead seals from Brough under Stainmore attributed to the Second Cohort of Nervians at Whitley Castle (after Richmond 1936, Fig 2). Reproduced with the permission of the Cumberland and Westmorland Antiquarian and Archaeological Society.

of lead was shipped annually from the Tyne; and between the end of the Napoleonic wars and 1880 the annual output of the two largest mining concerns averaged 20,000 tons (Dunham 1995, 4). With this in mind it is hard to imagine that these resources would not have been brought under Roman control as soon as possible after the annexation of the Brigantian territory in AD 71-4. Indeed it is difficult not to equate the richness of this orefield with the elder Pliny's account from about this time:

'Black lead... is excavated with considerable labour in Spain and through the whole of the Gallic provinces, but in Britain is found in the surface stratum of the earth in such abundance that there is a law prohibiting the production of more than a certain amount' (Pliny XXXIV 164 XLIX 244-47)

Writing at the height of the mining boom, and with an engineer's eye, Sopwith determined that the Romans could not have constructed the Maiden Way without encountering numerous lead veins along its route, and he had little doubt that its purpose was precisely to gain access to the North Pennine ore field (Sopwith 1833, 19). Collingwood (1937, 1-12) reached the same conclusion, and in so doing concurred with Bainbridge's view that the purpose of Whitley Castle was, first and foremost, to host a garrison in the heart of the mining country in order to secure the road and oversee lead production (Bainbridge 1855, 37, 7-20). A level of state control will have been exercised over all forms of mining in the provinces - effectively a state monopoly from the reign of Hadrian onwards - but lead was particularly valued, and the lead from Alston might be expected to have been closely controlled on account of its exceptionally high silver content (Raistrick and Jennings 1966, 6; Holder 1982, 95).

Richmond's analysis of a collection of lead seals from the fort at Brough (*Verteris*) at the foot of the Stainmore Pass provided additional support for a mining connection at Whitley Castle (Richmond 1936, 104-121). These seals, found discarded below the fort, had been removed from packages or entire loads sent to Brough under the

authority of the military units or private individuals whose names or symbols they bear. The accumulation is thought to reflect the operations of an imperial agent stationed at Brough in the third century to oversee the redistribution of consignments arriving from various outposts in Cumbria and beyond. Amongst the 133 seals (itself a small fraction of the likely size of the original deposit) were stamps of the Second and Sixth Legions, the *Ala Sebosiana*, the Sixth and Seventh cohorts of Thracians, the First Cohort of Batavians, the Fifth Pannonians, Second Lingones, Sixth Raeti and, of particular relevance to Whitley Castle, the Second Cohort of Nervians. Eighteen seals bearing their stamp appear in the Brough collection: a significant proportion which, given the likely date of the collection, quite probably relates to the period of their occupation of Whitley Castle, as indicated on the long Caracalla dedication stone (RIB 1202). The nature of the consignments may have varied, but one stamp in particular caught Richmond's eye. This seal, shown here as Figure 35 (top left), includes the abbreviation *meta(l)a*, in the sense of the product of a mine. Although such a term could refer to material from any mine, quarry, pit or even a salt-pan, Richmond considered that the only consignments worthy of transportation from the Alston area would have been either lead, or the silver found in association with it. Brough, on the main road from Carlisle to York, some 20km south east of Kirkby Thore (see Figure 3), was ideally placed to serve as a clearing house for such consignments (Richmond 1937, 112-3).

So there is circumstantial evidence to associate the Maiden Way with the ore-fields of the North Pennines, and a logical suggestion that Whitley Castle may have served as the official centre of Roman mining operations. Direct physical evidence for mining, however, has not yet been identified. Chance discoveries of lead items are reported from various places along the Maiden Way, but none is described in sufficient detail to support their identification as Roman artefacts (Sopwith 1833, 19; Bainbridge 1855, 51). The more telling and credible reports concern lead-related items unearthed from secure contexts at Whitley Castle itself. When Hodgson examined the floor of the bath house in 1810 he found it to be 'covered, layer after layer, with coarse mortar, made of lime and lead mine spar', and when he examined the soil thereabouts he 'twice met with calcareous and fluor spar mixed with portions of sulphuret of lead' (1840, 74). This report suggests that some mining activity, or at least the processing of ore, took place in the vicinity of the fort, although, despite an extensive search, no further evidence has come to light as a result of the recent surveys. Most significantly, the geophysical surveys have found nothing consistent with significant or prolonged smelting activities. Given the toxic fumes generated by this operation, and the logistics of moving quantities of ore and fuel, perhaps such operations took place closer to the mines, as was usual in later periods. The evidence of lead consignments, such as it is, might only require that the finished products were stored at Whitley Castle before shipment to Brough or elsewhere.

Roman lead mines are likely to have concentrated on the more accessible deposits and veins, and it is often presumed that the evidence for this activity will have been destroyed as the workings expanded in medieval and later times (Richmond 1936, 109). Although this supposition cannot be directly contradicted, it is far from proven. The preliminary stages of the Miner-Farmer landscapes project suggest that considerably more evidence survives from earlier periods than has previously been recognised, but for the moment

there is still no direct evidence for Roman mining in the Alston area. There are, however, two places which are associated with Roman mining in local traditions. The first of these, Hall Hill, alongside the River South Tyne at Alston, was considered Roman on account of silver *denarii* discovered there, although subsequent investigations have concluded that the earthworks are more akin to a medieval moated site, and may contain traces of a brick-built house (Sopwith 1833, 19, Bainbridge 1855, 39; Nall 1884, 11; CSMR 775). The second site, some 12km south of Whitley Castle near Tyne Head, is more intriguing. A Roman connection was first suggested on the basis of the field name 'Chesters' marked on old plans of the Hole Estate, and this was later reinforced by the discovery of some Roman coins in the vicinity (Wallace 1890, 95, Cain 1908, 2). The field, located south of Hole House, was notable for containing (or being contained by) a rectangular enclosure set against the east bank of the upper South Tyne River, described as bounded by 'a deep ditch uniting with the river on the north and south' (Kelly's 1938 directory cited in Robertson 2007, 29). When Arthur Raistrick and Dr J A Smythe examined this site in the 1930s they recorded an enclosure of 'low banks and a shallow ditch on three sides' set over a terrace of ancient stream gravels containing a high proportion of 'vein stuff' and workable quantities of lead ore (galena) that had almost certainly eroded from the silver-rich Clargill Head veins above. They noted that the area was pock-marked with shallow pits, and found patches of fine grit indicating that preliminary stages of processing - crushing and washing the ore - had taken place on site, although no signs of smelting were observed (Raistrick and Jennings 1966 10-11).

The Romans might well have exploited such easily-discovered and readily-accessible deposits. Raistrick certainly thought so, and reached the conclusion that this site was a working camp related in some way to Whitley Castle. This assumption is now difficult to assess, since the enclosure has all but vanished due to farm improvements, and there is nothing to distinguish the remaining pits and hollows from numerous medieval and later workings clustered along the river by Hole House. The most significant result of Raistrick's investigation, however, was provided by Smythe's assay of the ore from Chesters, which revealed not only an extremely high silver content (ten times the average from twenty five deep mine samples in the area), but also a mixture of other properties which were found to correspond very closely to samples from Corbridge (Ibid 10-11). The Brough seals indicate that mining products were transported southwards out of the Pennine range, whereas these assays suggest that material from Alston was shipped north. Whitley Castle was positioned to meet demands in either direction. It lies somewhat to the north of the most productive, silver-bearing and more easily accessible lead veins of the Alston Block (Dunham 1990, 118-133), but a more southerly location would have done little to enhance its role as an administrative centre, whereas the lower elevation and shelter provided by the South Tyne valley could have enhanced the year-round viability of the fort. In this position Whitley Castle may have served as a gateway for all traffic funnelling northwards out of the Alston Block into the Tyne Gap. It is perhaps worth questioning if Richmond's 'clearing house' at Brough was the most significant recipient of the fort's consignments, or perhaps no more than a 3rd-century innovation. It is quite possible that the more favoured route for transporting materials was generally, and from the fort's inception, northwards.

The idea that additional lines of defence at Whitley Castle might have been to secure valuable stockpiles of lead was raised and immediately dismissed by Breeze (2002, 885) on the grounds that the indigenous population had neither a need for lead nor a desire to steal it. As to whether there was specific provision for the containment of lead ingots within the fort, this is unlikely to be established without excavation, and perhaps not even then. Outside the fort there is an intriguing possibility that the substantial building to the north-west might not be a *mansio*, but rather the dwelling of a high official concerned with the centralisation and shipment of mining products – an interpretation applied to a similar complex excavated at Pentre Farm at Flint on the Dee Estuary (O’Leary, Blockley and Musson 1989, 50-52).

In respect of the movement of materials, the other unsubstantiated Roman road between Whitley Castle and Corbridge may repay further investigation. This route (see Figure 3) was first depicted on Warburton’s 1716 map of Northumberland and later illustrated by Horsely and Bruce; but was most clearly defined by Codrington, who stated that it crossed the South Tyne near the Whitley Castle, continued north-east over Willyshaw Rigg to Whinfield Hall on the West Allen River, thence to Old Town on the East Allen, and onward to Corbridge (Horsley 1732, 380; Bruce 1853, frontispiece map; Codrington 1919, 151). Once Old Town was ruled out as the *Alione* or *Galava* of the Antonine *Itinerary* both the justification for this route and its authenticity lay open to challenge. Haverfield speculated that the lengths which had been identified on the ground were most likely medieval in origin, whilst Margary omitted the route altogether from his road map of Roman Britain (Haverfield 1914, 10; Margary 1967). The mound of crude stonework stranded by the movement of the South Tyne to the north-east of the fort is clearly the abutment of a medieval or later packhorse bridge rather than a Roman crossing, but the rest of the supposed Roman route less easy to dismiss. Maclauchlan’s detailed plan of Corbridge in 1857 (sheet 4) shows a stub of road which can be little other than the beginning of this route, and Warburton’s description (cited in Codrington 1919, 151) of a section seen near Old Town as ‘a portway seven yards broad all paved with stone’ fits nothing so well as a road of Roman origin. The Ordnance Survey has continued to give limited credence to this route in the form of a ‘possible’ line extending about half way from Whitley Castle (as depicted in Figure 3) but for the moment there has been no answer to Eric Birley’s call for a proper survey to lift the uncertainty surrounding this ‘Allendale Road’ (Birley 1950, 150-1). Given the questions raised by these recent investigations at Whitley Castle, such a survey is now more needed than before. It may be that some new information will come to light as a result of the ongoing Miner-Farmer landscapes project (Ainsworth 2008)

Whitley Castle after the Romans

As a prominent local landmark, Whitley Castle might have played a part in the earliest recorded event concerning Whitlow - a Royal mandate of 1222 which authorised the Sheriff of Northumberland, the Bishop of Durham and three barons to fix the marches here, between kingdoms of Scotland and England, as they had been in the reign of King John (Hodgson 1840, 69). But if this event led to any physical alterations in the landscape, none can be recognised today. The earliest post-Roman features within the survey area are far more prosaic, including the patterns of broad medieval ridge and

furrow spread across the hillside towards the South Tyne, and the slightly more narrow and straight ridges, potentially later, which extend across the level area of the putative parade ground south of the fort. The settlements responsible for this ploughing may have included the steading within the east gateway, or the small farmstead located to the south of the fort. Ploughing at such an altitude is likely to have produced crops of barley and oats, although the purpose may also have been intended to clear, drain and improve the land for the benefit of pasture.

The straight boundary which is aligned to the western corner of the fort runs across the suggested Roman trackway beyond the south corner and is in turn crossed by the curving intake wall. Beyond this relative sequence, however, the issue of real dates remains unresolved. There must have been a good reason why this boundary was drawn in such a determined fashion across all seven vallations rather than directly to the southern corner tower, which was probably then, as now, the more prominent feature. Perhaps the choice reflects a need to emphasise that the whole of the fort lay to the south of this line, and hence indicates a period of particular activity taking place within the former walls. It is no more than supposition, but such a period could be represented by the bastle and bastle-derivative house in the *retentura*. In this scenario, the boundary could be seen as a 17th-century separation of intake land from the open moor, marked out in relation to the dispersed settlement set within the fort and to the south at Holymire and Whitlow. It is interesting to note that the northward extension of the boundary, towards the burn, followed precisely the line of the Roman road from the north gate, implying continued use and perhaps the survival of the Roman crossing prior to the creation of the curving intake which forced the relocation of the packhorse road.

The cluster of bastles and similar buildings developed, no doubt, in response to the conditions of lawlessness which existed prior to (and for several decades after) the union of the Scottish and English crowns (Aalen 2006, 113). The fort may have offered some advantages in terms of its topography and surviving defences which, in addition to providing a ready supply of building stone, made it an attractive prospect in these troubled times. It is impossible to say whether the thick-walled bastle established over the southern barracks was the earliest building in this rather dispersed settlement pattern. We may speculate, however, that the buildings within the fort remained in use long enough to merit extensions, and that these, like those of the buildings to the south, may well have been less defensible and more utilitarian than the blocks to which they were attached. The straight boundary, if it belongs to this period at all, more probably belongs to this later and more mature phase in the development of the Whitlow, and might therefore illustrate something of the bond between the individual holdings at this time, based on family connections and shared farming concerns.

Other features of this 'bastle-hamlet' period certainly include the impressions of yards and plots laid out in the rear of the fort, perhaps the field of comparatively straight ridge and furrow between Holymire and the foot of the knoll, and possibly the smaller parcels of very narrow ridges below the south-east ramparts and across the Roman road beyond the west gate. This digging and ploughing has nothing in common with the arrangement of walled fields which subsequently developed to contain and surround the fort; nor do these later walls appear to have any relevance to the former bastle and bastle-derivative house in the *retentura*.



Figure 36. Whitley Castle viewed from Whitley Common to the west.

From a preliminary examination of a collection of deeds held by the present owners of Castle Nook Farm it appears that the properties in and around the fort became freehold in 1667 when William Richardson of Randalholme sold them to the individual tenants, having first bought the Manor and Lordship of Kirkhaugh and Whitley from Sir John Ballantyne (Robertson 2000). The Wallis family acquired property at Whitlow at this time, and they seem to have garnered a larger stake in the hamlet over the following half-century, including the house within the fort where the historian John Wallis was born in 1714. This 'Castle Nook' was, one may assume, a comfortable farmhouse, suited to more settled times, built to replace the earlier defendable buildings nearby. The pattern of 'old inclosures' first depicted on the 1862 enclosure map (Figure 29) appears also to date from this period, reflecting the re-organisation brought about by the changes in tenure. A pattern of walls radiated outwards from the sides of the old Castle Nook farmhouse, two of which are linked to the curving intake wall, which may itself have appeared at this time to define the pastures belonging to the Wallis family and their neighbours. Thereafter, until the construction of the turnpike in the early 19th century, the road from Alston to Brampton is likely to have followed the curving route around the intake wall depicted on Donald's 1774 map (Figure 24). The road through the fort must have continued to serve a local purpose, connecting the old Castle Nook with Holymire and Whitlow to the south. But the abandonment of the route north is quite evident in the construction of the small stone-walled animal pen which partly blocked the northern gateway. The corn-drying oven, or limekiln, inserted into the outer scarp of the eastern corner tower, being rather remote from any of the later farms, probably also dates from this period, as too the small pen or shieling which was set within the adjacent ramparts.

The pattern of walls established in relation to the old Castle Nook farm changed in some minor respects when the farmhouse was transferred to its present position north of the fort. There is nothing to specify the date of this event in the Castle Nook deeds, although a flurry of activity culminating in Joseph Henderson's purchase of the property in 1826 marks a period of significant reorganisation, perhaps engendered by the construction of the turnpike road, which was in turn a reflection of a booming mining economy. The new Castle Nook, set alongside this road, probably contains a substantial proportion of general building stone taken from its predecessor, as well as a few more noticeable re-cycled architectural features such as the reversed lintel over the byre door facing the road. What is not so evident is the inclusion of reused Roman masonry, although it seems probable that such material would have passed from one building to another, beginning with the bastle houses within the fort. There is no sign of the smaller dedication slab to Caracalla (RIB 1203), or of the stone marking work by the Twentieth Legion (RIB 1204) which Horsley saw at the old Castle Nook in 1728. Nor is there now any trace of the 'patera and urcelous' altar which may have been inserted over a stable door at the new Castle Nook (see Appendix 1)

The final stage in the development of the landscape surrounding the fort came about through the formal enclosure of the upland pastures in 1862-3. This process had little impact on the pattern of fields within the intake wall, save perhaps for the introduction of a few gateways, but it does appear to have given new meaning to the former packhorse route alongside the wall, now formalised as a means of access to the new fields as well as to a range of existing coal mines and quarries along the shoulder of Great Heaplaw and beyond. Also, for a brief period leading up to this time, a short section of the Maiden Way saw renewed use as a track linking Whitlow with the new Castle Nook farm.

6. CONCLUSION

The surveys and the accompanying research have thrown new light on this remarkable but largely overlooked Roman outpost. Whilst we have yet to fully clarify the connection between the fort and the mining for which the area was later famed, there can be little doubt that the plentiful veins of silver-rich lead ore on Alston Moor were exploited during the Roman period and that the Maiden Way and Whitley Castle were central to this process.

Perhaps built in stone from the outset in the early 2nd century, the fort may have occupied the site of a pre-existing native settlement, although the evidence to support this - in the form of the Celtic origin of the name *Epiacum*, and the proximity of field boundaries which appear to be pre-Roman - is slight and indirect. The fort's builders adapted a standardised plan in order to suit the local topography, making best use of the prominent knoll conveniently situated at the Maiden Way's point of departure from the sheltered South Tyne Valley. The resulting rhomboidal outline caused problems for the internal layout, but the greatest difficulty is likely to have been the limited area imposed by the knoll, particularly if, as seems possible, the fort was either built for or adapted to house a mixed unit of infantry and cavalry, quite probably the most effective unit for operations in such an extensive upland landscape. Excavated and epigraphic evidence suggests that the interior underwent periods of reconstruction in the early 3rd century and perhaps in the early 4th century, and these may be related to the elaborations of the outer defences, expanding from two to three and ultimately to four complete or partial circuits, with other ramparts within the abortive expansion overlying the western *vicus*. The identification of extra-mural settlement here, and to the north of the fort, is certainly one of the more significant discoveries made through the new surveys, as too the recognition that the comparatively empty, unsettled area to the south may have served as a parade ground or training area.

The subsequent history of the fort and the alterations to the landscape in the medieval and post-medieval periods have been explored in some detail, and reveal that Whitley Castle, like many other frontier forts, attracted settlement and was exploited for its resources on numerous successive occasions. Most particularly, the identification of the bastle, the bastle-derivative building and the earlier version of Castle Nook farmhouse has done much to explain the condition of the earthworks in the *retentura*, and to chart the evolution of settlement and tenure from the undocumented later medieval period into the era of historic maps and records.

The most significant aspect of Whitley Castle's post-Roman history is, however, the limited effect that subsequent settlement, antiquarian investigations or later farming activities have had on the survival of the fort and the *vicus*. A few areas at particular risk from modern erosion will be dealt with through management agreements and remedial action informed by these recent surveys. For the most part, however, the isolated location, combined with inherently conservative farming practices, has resulted in the exceptional levels of preservation recorded in the excavations of the past and visible in the landscape today. These conditions, if maintained, will ensure that questions which cannot be answered by present survey techniques may yet be addressed by future

advances in non-invasive archaeological methods, or indeed by detailed excavation. More importantly, perhaps, the continued effective stewardship of this exceptional fort will ensure that it continues to be studied and appreciated through the simple process of visiting the site and exploring the outstanding visible remains.

7. SURVEY METHODOLOGY

The measured survey was carried out principally using Trimble differential survey-grade GPS (5800 and R8 series) working in Real Time Kinematic mode (RTK), with points related to an R8 receiver configured as an on-site base station, capturing a level of detail suitable for reproduction at scales up to 1:500. The position of the base station had previously been adjusted to the National Grid Transformation OSTN02 via the Trimble VRS Now Network RTK delivery service. This uses the Ordnance Survey's GNSS correction network (OSNet) and gives a stated accuracy of 0.01-0.015m per point.

The farm buildings at Castle Nook, and other features which were obscured by woodland along the lower section of the Lort Burn, were surveyed using a Trimble 5600 series total-station theodolite in relation to a temporary GPS base station on the northern fort wall. The survey data was downloaded into Korec's Geosite software to process the field codes and the data transferred to AutoCad software for plotting out for graphical completion in the field at scales of 1:500 and 1:1000. The survey plan and additional report illustrations were completed using AutoCad and Adobe Illustrator software and the report was prepared for publication using Adobe InDesign software.

Inter-visible permanent survey markers (ground anchors) were established on the two western corner towers during the survey, and their positions located with the differential survey-grade GPS using the Trimble VRS Now Network RTK delivery service. The Ordnance Survey national grid coordinates of these stations are given in Appendix 3, together with witness diagrams.

The survey data has been archived at English Heritage's public archive, the National Monuments Record, Kemble Drive, Swindon.

Whitley Castle is protected as a Scheduled Monument (Northumberland 12) under the terms of the 1979 Ancient Monuments and Archaeological Areas Act. The placement of survey markers and permanent stations was authorised under the provisions of the Ancient Monuments (Class Consents) Order 1994.

8. REFERENCES

- Aalen, F 2006 *England's Landscape: The North East*. English Heritage: Collins
- Ainsworth, S 2007 'Whitley Castle, Northumberland'. English Heritage Research Department Project Design
- Ainsworth, S 2008 'Miner-Farmer Landscapes of the North Pennines Area of Outstanding Natural Beauty'. English Heritage Research Department Project Design
- Ainsworth, S, Bowden, M and McOmish, D 2007 *Understanding the Archaeology of Landscapes: a guide to good recording practice*. Swindon: English Heritage
- Ainsworth, S *forthcoming* 'Miner-Farmer Landscapes of the North Peninne AONB; new research on Alston Moor and in the South Tyne Valley'. *Archaeology in Northumberland* **19**
- Bailey, G B 1994 'The provision of fort-annexes on the Antonine Wall'. *Proc Soc Antiq Scot* **124**, 299-314
- Bainbridge, W 1855 'Account of the Roman Road called 'The Maiden Way''. *Arch Aeliana* **4**, 36-53
- Beck, R 1998 'The Mysteries of Mithras: a New Account of their Genesis'. *J Roman Studies* **88**, 115-28
- Bennett, J 1985 'Hadrianic Stone Forts in the North of England: Some thoughts on their construction and possible appearance' in Clack, P and Ivy, J (eds) *Making Sense of Buildings* Council for British Archaeology Group 3 Report, 11-33
- Bennett, J 1986 'Fort sizes as a guide to garrison type: a preliminary study of selected forts in the European provinces'. *Studien zu den Militärgrenzen Roms III 13 Internationaler Limeskongreß Aalen 1983* Stuttgart 707-116
- Bailey, G B 1994 'The provision of fort-annexes on the Antonine Wall'. *Proc Soc Antiq Scot* **124**, 299-314
- Bidwell, P and Speak, S 1994 *Excavations at South Shields Roman Fort Volume 1* Monograph Series **4** Society of Antiquaries of Newcastle upon Tyne with Tyne and Wear Museums.
- Bidwell, P 1997 *Roman Forts in Britain*. English Heritage: Batsford
- Bidwell, P 2005 'The Systems of Obstacles on Hadrian's Wall: their Extent, Date and Purpose'. *The Arbeia Journal* **8**, 53-75
- Biggins, J A and Taylor, D J A 1999 'A Survey of the Roman Fort and Settlement at Birdoswald, Cumbria'. *Britannia* **30**, 91-110

Birley, A and Blake, J 2007 *The Excavations of 2005-2006*. Vindolanda Research Report. Hexham: Vindolanda Trust

Birley, E 1950 'A Roman Altar from Staward Pele and Roman Remains in Allendale'. *Archaeol Aeliana* 4th ser **28** Soc of Antiqs of Newcastle Upon Tyne, 132-151

Breeze, D J 2002 'Ditches for defence: towards a study of multiple fort ditches' in Bennett, J, Fiema, Z T and Hoffmann, B (eds) *Limes 18: Proceedings of the XVIII International Congress of Roman Frontier Studies held in Amman, Jordan (September 2000)* Oxford: British Archaeol Reports Int ser 1084 (II), 883-86

Bruce, Dr 1886 'Newly Discovered Roman Inscriptions'. *Archaeol Aeliana* New series **II** Soc of Antiqs of Newcastle upon Tyne 235

Bruce, J Collingwood 1853 *The Roman Wall*. 2nd ed. London

Bruce, J Collingwood 1867 *The Roman Wall*. 3rd ed. London

Bosanquet, R C 1924 'Whitley Castle, Kirkhaugh, Randalholme and Langley'. *Proceedings of the Soc of Antiqs of Newcastle upon Tyne* 4th series **I**, 249-255

Bosanquet, R C 1929 'Whitley Castle'. *Trans Cumberland and Westmorland Antiq & Archaeol Soc* 2nd series **30**, 208

Cain, C 1908 *Capella de Geraldegile: or the story of a Cumberland chapelry* (Garrigil). Haltwhistle: R M Sain Printers

Camden, W 1607 *Britannia*. London

Campbell, B 1978 'The Marriage of Soldiers under the Empire'. *J Roman Studies* **68**, 153-166

Casey, P, Noel, M and Wright, J 1992 'The Roman Fort at Lanchester, Co. Durham: a Geophysical Survey and Discussion of Garrisons'. *Archaeol J* **149**, 69-81

Clarke, S 1999 'Contact, architectural symbolism, and the negotiation of cultural identity in the military zone' in Forcey, C & Witcher, R (eds) *Proc Eighth Theoretical Roman Archaeol Conf 1998 Leicester*. Oxford: Oxbow, 37-45

Codrington, T 1919 *Roman Roads in Britain*. London: Macmillan

Collingwood, R G 1930 *The Archaeology of Roman Britain*. London: Methuen

Collingwood, R G 1937 'Two Roman Mountain Roads'. *Trans Cumberland and Westmorland Antiq & Archaeol Soc* 2nd series **37**, 1-12

Collingwood, R G & Wright, R P 1965 *The Roman Inscriptions of Britain I*. Oxford University Press

Crow, J 1992 'Survey and Excavations at High Rochester, Northumberland 1992'. *Unis Durham and Newcastle Arch Reps* **16**, 30-34

Crow, J 2004 *Housesteads: a fort and garrison on Hadrian's Wall*. Tempus

Crow, J and Rushworth, A 1994. *Housesteads Roman Fort and its environs*. Durham and Newcastle Archaeol Depts Monograph.

CWAAS 2002 *Thomas Donald's Historic Map of Cumberland 1774*. Cumberland and Westmorland Antiq and Archaeol Soc Record Series **15**

Dunham, K C 1990 *Geology of the North Pennine Orefield: Volume 1 Tyne to Stainmore*. British Geological Survey. London: HMSO

English Heritage 'Whitley Castle Roman Fort'. *Ancient Monument Record File*: AA10817/1

English Heritage 2005 *English Heritage Research Agenda: An Introduction to English Heritage's Research Themes and Programmes*. Swindon: English Heritage

English Heritage 2005a *Outstanding Beauty: Outstanding Heritage – AONBs and the Historic Environment*. Swindon: English Heritage

Fairburn, R A 1993 'The Mines of Alston Moor'. *British Mining* **47** The Northern Mine Research Society

Farrer, R 1981 'Whitley Castle field sheet'. Unpublished field drawing from the RCHME: Roman Military North Project. Swindon: National Monument Record 1047650

Fentress, E W B 1979 *Numidia and the Roman Army: social, military and economic aspects of the frontier zone*. Oxford: Brit Archaeol Reports International Series **53**

Frere, S S & St Joseph, J K S 1983 *Roman Britain from the Air*. Cambridge University Press

Gander, D, Oakey, M and Pearson, P 2009 'New base mapping assists landscape research'. *Research News* **12**, 23-25 English Heritage

Gates, T 1982 'Farming on the frontier: Romano-British fields in Northumberland' in Clack, P and Haselgrove, S (eds) *Rural Settlement in the Roman North* Durham: Council for British Archaeology Group 3, 21-42

Gates, T and Hewitt, R 2007 'Some newly identified Roman temporary camps in Northumberland and their relation to the Devil's Causeway'. *Archaeol Aeliana* (5th series) **36**, 11-30

Gillam, J R 1954 'The Roman bath-house at Bewcastle'. *Trans Cumberland and Westmorland Antiq and Archaeol Soc* **2** **54**, 265-67

Hale, D 2009 'Whitley Castle, Tynedale, Northumberland: geophysical surveys'. Unpublished report **2149** Archaeological Services Durham University

Haverfield, F 1910 'Notes on Reginald Bainbrigg of Appleby, and William Camden'. *Trans Cumberland & Westmorland Antiq & Archaeol Soc* 2nd series **XI**, 342-78

Haverfield, F 1897 'A Report of the Cumberland Excavation Committee 1895'. *Trans Cumberland & Westmorland Antiq & Archaeol Soc* **14**, 185-97

Haverfield, F 1914 'An Account of the Roman remains in the parish of Corbridge' in Craster, H H E A *History of Northumberland* **10** *Parish of Corbridge*. London/Newcastle upon Tyne: The Northumberland County History Committee, Reid & Co and Simpson, Marshall, Hamilton & Kent, 455-522

Hepple, L W 2001 'The Museum in the Garden: displaying classical antiquities in Elizabethan and Jacobean England'. *Garden History* **29** **2**, 109-120

Henig, M 1984 *Religion in Roman Britain*. London: Batsford

Hodgson, J 1818 *Northumberland or Original Delineations Topographical, Historical and Descriptive of that County*. London

Hodgson, J 1840 *History of Northumberland*. **2** vol 3 Newcastle

Hodgson, N 2002 'Where did they put the horses?' revisited: the recent discovery of cavalry barracks in the Roman forts at Wallsend and South Shields on Hadrian's Wall', in Bennett, J, Fiema, Z T and Hoffmann, B (eds) *Limes* **18: Proceedings of the XVIII International Congress of Roman Frontier Studies held in Amman, Jordan (September 2000). Oxford: Brit Archaeol Reports Int ser **1084** (II), 887-94**

Hodgson, N 2002a *The Roman Fort at Wallsend (Segedunum) Excavations in 1997-8*. Archaeological Monograph **2** Tyne and Wear Museums

Hodgson, N 2004 'Summary Description of South Shields Fort and Vicus'. http://www.dur.ac.uk/archaeological_services/research_training/hadrianswall_research_framework/project_documents/

Hoffman, B 1995 'The Quarters of the Legionary Centurions of the Principate'. *Britannia* **26** 107-51

Holder, P A 1982 *The Roman Army in Britain*. London: Batsford

Hoole, K 1985 *North Eastern Branch Line Termini*. Oxford

Horsely, J 1732 *Britannia Romana* 2nd edition (1974 reprint). Newcastle-upon-Tyne: Frank Graham

- Hutchinson, W 1797 *The History of the County of Cumberland* **3** (1974 reprint). Ilkley: EP Publishing
- James, S 2002 'Writing the Legions: The Development and Future of Roman Military Studies in Britain'. *Archaeol J* **159**, 1-58
- Jobey, G 1960 'Some rectilinear settlements of the Roman period in Northumberland Part 1'. *Archaeologia Aeliana* 4th series **38**, 1-38
- Jobey, G 1962 'Enclosed stone-built settlements in North Northumberland'. *Archaeologia Aeliana* 4th series **42**, 43-60
- Jobey, G 1972 'Notes in additional settlements in North Northumberland'. *Archaeologia Aeliana* 4th series **50**, 71-80
- Jones, M J 1975 *Roman Fort-Defences to AD 117*. Oxford: Brit Archaeol Reports **21**
- Lake, J and Edwards, R 2006 *Historic Farmsteads. Preliminary Character Statement: North West Region*. University of Gloucester, English Heritage and the Countryside Agency
- Maclauchlan, H 1857 *The Roman Wall and Illustrations of the Principal Vestiges of Roman Occupation in the North of England from an Original Survey made by Direction of His Grace the Duke of Northumberland*. London
- Mannix and Whellan 1847 *History, Gazetteer and Directory of Cumberland* (1974 reprint). Ilkley: Michael Moon
- Margary, I D 1967 *Roman Roads in Britain*. London: John Baker
- Maryon, H 1936 'Excavation of two Bronze Age barrows at Kirkhaugh, Northumberland'. *Archaeologia Aeliana* 4th series **13**, 207-17
- Mason, D 2004 'Fort and Vici Overview'. http://www.dur.ac.uk/archaeological.services/research_training/hadrianswall_research_framework/project_documents
- Maxwell, G S 1975 'Excavations at the Roman Fort of Bothwellhaugh Lanarkshire 1967-8'. *Britannia* **6**, 20-25
- Mould, Q 1997 'Leather' in Wilmott, T with Hird, L, Izzard, K and Summerfield, J *Birdoswald: Excavation of a Roman Fort on Hadrian's Wall 1987-92* Archaeological Report **14** English Heritage, 326-41
- Nall, W 1884 'Alston: read at that place July 10th 1884' *Trans Cumberland and Westmorland Antiq and Archaeol Soc* 1st series **8**, 7-20
- Noel, M J 2006 *Preliminary Geophysical Surveys at Whitley Castle Roman Fort (Epiacum) Tynedale, Northumberland*. Geoquest Associates

O'Leary, T J, Blockley, K and Musson, C 1989 *Pentre Farm, Flint 1976-81: An official building in the Roman lead mining district*. Oxford: Brit Archaeol Reports **207**

Pliny the Elder *Natural History* (Books 33-35) Translated by Rackham, H 1952. London/Massachusetts: Harvard University Press

QRA 58 1862. (Northumberland Collections Service, Woodhorn) '*Inclosure award and maps for the Manor of Whitlaw in the parish of Kirkhaugh, surveyed by John Salkeld December 31st 1861, approved by Commissioners H C Mules & G Ridley, 20th February 1862; confirmed 8th May 1862*'. In two parts:

"*Map A of the Inclosure of Whitlaw Common in the Manor of Whitlaw in the Parish of Kirkhaugh in the County of Northumberland*"

"*Map B of the Old Inclosed lands in the Manor of Whitlaw in the Parish of Kirkhaugh in the County of Northumberland*"

QRZ 10 1823 (Cumbria Records Office) '*A Map of the Turnpike Road from Burtryford in the county of Durham, by Alston in the county of Cumberland, to Burnstones in the county of Northumberland, and of branches to be made turnpike from thence to Brampton in the county of Cumberland. As projected by John Louden MacAdam Esq. September 1823*'.

Raistrick, A & Jennings, B A 1966 *A History of lead Mining in the Pennines*. London: Longmans

Richmond, I A 1936 'Roman Leaden Sealings from Brough-under-Stainmore'. *Trans Cumberland and Westmorland Antiq and Archaeol Soc* **36**, 104-121

Richmond, I A and Gillam, J P 1951 'The Temple of Mithras at Carrawburgh'. *Archaeol Aeliana* 4th ser **24**, 1-92

Rivet, A L F and Smith, C 1979 *Place Names of Roman Britain*. London: Batsford

Robertson, A F 2000 '*Inventory of Deeds to Castle Nook and Whitlow, Northumberland*'. (unpublished manuscript)

Robertson, A F 2007 *Whitley Castle: A Roman Fort near Alston in Cumbria* 3rd edition. Alston: Hundy Publications

Ryder, P F 1995 '*Towers and Bastles in Northumberland Part IV Tynedale District*'. Unpublished report prepared for English Heritage, held in Northumberland HER.

Ryder, P F 2006 '*Two former houses at Whitlow, South Tyneside An Archaeological Assessment*'. Unpublished report in Northumberland HER.

Ryder, P F 2008 'Whitlow III'. *Cumberland and Westmorland Antiq and Archaeol Society Newsletter*. Summer 2008, 12-13

St Joseph, J K 1951 'A survey of pioneering in air photography past and future.' in Grimes, W F (ed) *Aspects of Archaeology in Britain and Beyond: essays presented to O G S Crawford*. London: HW Edwards. 303-315

Sauer, E, Crutchley, S and Erwin, P 1999 'The Military Origins of the Roman Town of Alchester, Oxfordshire'. *Britannia* **30**, 289-297

Selkirk, R 1987 'Roman Signal Stations'. *Archaeology Today* February 1987, 26-33

Shaw, N 1959 'Excavation at Whitley Castle, Northumberland 1957 and 1958'. *Archaeologia Aeliana* 4th series **37**, 191-202

Shotter, D C A 1989 'Roman Coin Finds in Cumbria' *Trans Cumberland and Westmorland Antiq and Archaeol Soc*. 2nd series **89**, 42

Smith, I G 1997 'Some Roman Place-names in Lancashire and Cumbria'. *Britannia* **28** 372-83

Sommer, C S 1984 *The Military Vici in Roman Britain*. Oxford: Brit Archaeol Reports **129**

Sopwith, T 1833 *An account of the Mining District of Alston Moor, Wearedale and Teesdale in Cumberland and Durham*. Alnwick

Southern, P 2007 *The Roman Army*. Oxford University Press

Tacitus *Agricola and Germania*. Translated by Mattingly, H 1970. Middlesex: Penguin

Taylor, C C 2003 'Sir Robert Cotton and the Round Hill, Conington'. *Proc Cambs Antiq Soc* **92**, 201-214

Taylor, J H 1980 *Bronze Age Goldwork of the British Isles*. Cambridge

Van Driel Murrey, C 1987 'Roman footwear: a mirror of fashion and society' in Friendship-Taylor, D E, Swann, J M and Thomas, S (eds) *Recent Research in Archaeological Footwear Technical Papers* **8** Assoc Archaeol Illustrators & Surveyors, 32-42

Wallace, W 1890 *Alston Moor: Its Pastoral People, its Mines and Miners*. Davis Books (1986)

Wallis, J 1769 *The Natural History and Antiquities of Northumberland* (2 Volumes). London: W & W Strachan

Warburton, J 1716 *Map of Northumberland*. Northumberland Collections Service, Woodhorn, 06097/2

Welfare, H and Swan, V 1995 *Roman Camps in England: The Field Archaeology* Royal Commission on the Historical Monuments of England. London: HMSO

Welfare, H 2009 'Survey of Housesteads environs' in Rushworth, A *Housesteads Roman Fort - The Grandest Station: excavation and survey at Housesteads, 1954-95, by Charles Daniels, John Gillam, James Crow and others. Vol 1 Structural Report and Discussion*. English Heritage Archaeol Report, 235-49

Weston, S 1813 'Description of a Roman altar found in the neighbourhood of Alston Moor in Cumberland: in a letter to the Earl of Aberdeen, K.T. President of the Society of Antiquaries, &c. &c. by the Rev. Stephen Weston B.D. F.R.S. and S.A. Read 18th June 1812'. *Archaeologia* **17**, 229-30

Wilson, D R 1967 *Roman Frontiers of Britain*. London: Heinemann

Winchester, A 2000 *The Harvest of the Hills: Rural Life in Northern England and the Scottish Borders 1400-1700* Edinburgh University Press

Wright, R P 1943 'The Whitley Castle Altar to Apollo'. *J Roman Studies* **33**, 36-8

Ordnance Survey Maps

Ordnance Survey 1865 1st Edition 6-inch scale map, Northumberland 106a SE

Ordnance Survey 1898 2nd Edition 6-inch scale map, Northumberland 106a SE

Ordnance Survey 1926 3rd Edition 6-inch scale map, Northumberland 110 NE

Ordnance Survey 1951 4th Edition 6-inch scale map, Northumberland 110 NE

Ordnance Survey 1863 1st Edition 25-inch scale map, Northumberland 106a (12)

Ordnance Survey 1896 2nd Edition 25-inch scale map, Northumberland 106a (12)

Ordnance Survey 1922 3rd Edition 25-inch scale map, Northumberland 110 (1)

Ordnance Survey 1956 *Roman Britain: North Sheet* (3rd edition) Southampton

Ordnance Survey 1978 *Roman Britain: North Sheet* (4th edition) Southampton

Ordnance Survey 2001 *Roman Britain* (5th edition) Southampton

Aerial Photographs

Cambridge University Collection of Air Photographs (CUCAP) 1971 Sortie BEW Frame Nos. 16 and 20 Library No. 105519

English Heritage 2007 NMR 20677-049

Ordnance Survey 1969 Sortie 69248 Frame No. 168 Library No. 11383

Ordnance Survey 1976 Sortie 76192 Frame No. 133 Library No. 9999

APPENDIX I: ALTARS, STONES AND INSCRIPTIONS

The following section draws together information from Collingwood and Wright's Roman Inscriptions of Britain (RIB) and other sources to provide an inventory of the altars and inscribed stones found at or near Whitley Castle. The entry for each item includes a description, transcription and translation, as well as details (where available) of the circumstances of its discovery and its present location. The inventory is complete insofar as it draws together all information from documented discoveries. Many artifacts have undoubtedly been unearthed at Whitley Castle without any record, however, and subsequently lost. These include an unknown number of unspecified items said to have been taken by Sir Thomas Robinson to his seat at Rookby in Huntingdonshire around 1730 (Sopwith 1833, 36), and those 'curious stones' once in the possession of the rector of Kirkhaugh, Mr Kirby, found within the area near the north corner of the fort which was known as the 'burial ground' (Hodgson 1840, 76, 432).

Transcriptions and translations are those provided by the RIB (unless stated otherwise) and follow similar conventions:

- (abc) letters omitted from the inscription by abbreviation
- [...] letters lost (the number estimated by dots) through damage
- [...] lost lettering of unknown length at the end of a line
- ...] lost lettering of unknown length at the beginning of a line

RIB I 198 APOLLO/MITHRAS ALTAR (*Figure 37*)

DESCRIPTION

A buff sandstone altar in the form of a column, rectangular in section, with decorated panels around the capital (width 508mm, height 1397mm, depth 384mm), set into a socket in a large slab (width 1219mm, height 203mm, depth 711mm).

The front panel (above the inscription) depicts the frontal aspect of Apollo Citharoedus (cithara-playing), nude except for a cloak, his right hand holding a plectrum, his left hand steadying a harp which rests on ground. The panel to the left shows the frontal figure of the Sun God with radiate crown and cloak, his right hand raised in blessing, his left hand holding a whip. The right hand panel shows a bearded man in a tunic facing left, holding a jug in his left hand and proffering a cup to a cloaked figure carrying a sceptre or staff. The suggestion here is that the bearded figure represents the dedicator offering a libation to Apollo, perhaps worshipped as the local deity Maponus. On the back panel a central figure is shown standing on a rock platform with an object resembling a sceptre between his shoulder and right hand. This is interpreted as Apollo equated with Mithras. The figures to either side can be identified as Mithras' attendants Cautes and Cautopates, one with torch raised, the other lowered.



Figure 37. The Apollo/Mithras altar RIB 1198. Reproduced from “The Roman Inscriptions of Britain: I Inscriptions on Stone” by Collingwood R G and Wright R P (1965) plate 16, by permission of Oxford University Press.

INSCRIPTION

The inscription was declared illegible by Bruce (1853, 325) and by Bosanquet (1924, 253). However, using an illustration from 1941 with texts from various sources (Richardson, M A 1841 *The Local Historian's Table-Book* 4, 836; Bruce J C 1870-5 *Lapidarium Septentrionale*; Heubner A 1873 *Corpus Inscriptionum Latinarum*; Huebner E 1877 *Ephemeris Epigraphica* 3) the RIB provides the following:

D[e]o
Apo[llin]N[i] G(aius)
[....]ius
...
..] coh(ortis) [II] Ne[r(uiorum)]
[...]

'To the God Apollo Gaius ... of the [Second] Cohort of Nervians.....'

It should be noted that the cohort number is illegible. The space is considered insufficient to allow the numeral III, and it was assumed to be II from other evidence (see RIB 1201 & 1202 below).

PROVENANCE

This altar was discovered in 1837 whilst digging a drain about 100 yards north-east of the north-east angle of the fort and, when found, the inscribed face of the altar faced west (Hodgson 1840, 432; RIB 1198). The altar 'had been fixed in a rough stone pedestal, four feet broad in front, set on four rough pillars, each one foot high, and having in its top a mortise-hole or socket for the altar, four inches deep' and a small coin was found on each pillar, under the slab (Hodgson 1840, 432). These coins are reported to have included two of copper and another seeming of gold, but possibly brass. One of these bore a head and the legend DIVA FAUSTINA on the obverse, and on the reverse a female figure with the legend AVGVSTA -probably Faustina I, wife of Antoninus Pius, dating to AD 141-161 (Bosanquet 1924, 253). The location and circumstances of the discovery are discussed further in section 4.1.4 (extra-mural activity) above.

In 1853 the altar was located 'in the neighbouring farm-house' (Bruce 1853, 325) and when the Society of Antiquaries of Newcastle visited in 1924 it stood in the garden of Castle Nook (Bosanquet 1924, 253 and Fig. 2). In 1928, perhaps following Bosanquet's recommendation for better treatment, the altar and base were placed on loan in the Black Gate Museum, Newcastle upon Tyne (ibid; RIB 392).

LOCATION

The altar and slab are currently on display at the Great North Museum, Newcastle upon Tyne.

RIB 1199 THE HERCULES PEDESTAL (*Figure 38*)

DESCRIPTION

Buff sandstone pedestal (457mm in width and depth, 863mm high) with a rectangular niche or socket in the top surface (228 × 152 × 388mm) for an altar or statue.

The right hand side of the pedestal (to the right of the inscription) depicts Hercules facing a serpent entwined in a fruiting tree. This is thought to be a scene from his eleventh labour: stealing apples from the garden of the Hesperides. The left side shows the infant Hercules strangling two serpents.



Figure 38. The Hercules altar (RIB 1199) drawn by J Basire for the Rev S Weston (reproduced from *Archaeologia* **17**, 1813, plate 17, with the permission of the Society of Antiquaries of London)

INSCRIPTION

Deo
 Herculi
 G (aius) Vitellius
 Atticianus
 C(enturio) leg(ionis) VI
 V(ictricus) P(iae) F(idelis)

'To the God Hercules Gaius Vitellius Atticianus centurion of the Sixth Legion Victrix Pia Fidelis (set this up)'

PROVENANCE

The pedestal was first reported and illustrated (see Figure 38) in a letter from the Rev. Stephen Weston to the Society of Antiquaries of London in 1812, although it appears to have been unearthed some years beforehand, possibly in 1803 (Weston 1813, 229; Collingwood and Wright 1965, 393). Weston states that it was dug up near a military road, not far from the Roman station (*ibid*). Hodgson, who visited the site in 1810, is more specific. He records that it was found, fixed in a socket like the pedestal of a cross,

between the road and the north east corner of the fort (Hodgson 1818, 108). In his later work Hodgson is more precise about the location, placing the discovery in a swampy area 'a little to the south east of the bath house and the north east corner of the station' (Hodgson 1840, 76).

The pedestal was kept at an ale-house near the fort prior to 1812, after which it was purchased and taken to London at the behest of an individual whom Weston declined to name (Weston 1813, 230; Hodgson 1818, 108; Sopwith 1833, 32). The pedestal was reputedly sold on at least one further occasion before 1840, and by 1924 (and perhaps as early as 1867) it could be found at Turvey Abbey Bedfordshire (Hodgson 1840, 76; Bosanquet 1924, 253). It was there still, in the private collection of Mr J L Higgins, in 1936 (Collingwood and Wright 1965, 393).

Weston reported that a statue of Hercules was found with the pedestal, but that the head and body were broken to pieces in the digging up. Only the feet and 'a hand grasping a club' were preserved, and these he placed, quite literally, before the Society in London (Weston 1813, 229-230). Hodgson (1840, 76) noted, however, that the head also survived excavation, and that it was kept at Castle Nook farmhouse. It was still there in 1924, in the garden, where it was photographed resting on top of the Apollo/Mithras altar (Bosanquet 1924, 253 and Figure 3).

LOCATION

The altar is now on display at Bedford Museum. The socket stone reported by Hodgson is lost. None of the fragments of the statue can now be found.

RIB 1200 MINERVA AND HERCULES ALTAR (*Figure 39*)

DESCRIPTION

No dimensions or details, other than the inscription, have been recorded.

INSCRIPTION

Deae Me
neruae
et
Herculi
Victor[i]

RIB: 'To the goddess Minerva and to Hercules Victor'.

PROVENANCE

This altar was found at Whitley Castle in or before 1716 (Collingwood and Wright 1965, 393) and last seen by Horsley (1732, 252) in nearby Kirkhaugh churchyard. Hodgson (1840, 75) stated that it existed in living memory, but was lost or destroyed in 1810.



Figure 39. Minerva and Hercules Altar (RIB 1200) reproduced from Horsely (1732, 192)

LOCATION. Lost.

RIB 1201 ALTAR

DESCRIPTION

An altar, 228 × 330mm across and 838mm high. No other details.

PROVINANCE

This altar was reported as being at Castle Nook Farm in 1911 (Haverfield MS 1911-12 cited in Collingwood and Wright 1965, 393).

LOCATION

Location unknown. It could conceivably be the same stone as the 'patera and urcelous' altar which was mentioned in early 18th-century writings, and which is also lost (see below).

RIB 1202 DEDICATION SLAB (CARACALLA)

DESCRIPTION

A lengthy and elaborate dedication erected in honour of the Emperor Caracalla by the Second Cohort of Nervians dating between AD213 and AD217. The dimensions of the Appleby replica are 533 x 1066mm.

INSCRIPTION

A complicated history surrounds the interpretation of this inscription. It was first recorded by William Camden in his visit north in 1599 or 1600 and published in later editions of *Britannia* (Haverfield 1910, 359). Camden sought to identify Whitley Castle with *Alione*, a place mentioned in the late 4th-century imperial register, the *Notitia Dignitatum*, as a garrison of the Third Cohort of Nervians, and his transcription endorsed this view.

Reginald Bainbrigg, headmaster of Appleby School, made a copy of the same inscription during a trip to Whitley Castle in 1601. A serious antiquarian in his own right, Bainbrigg also corresponded with Camden, and his transcription of the Caracalla stone (see Figure 11) survives among Camden's papers in the Cotton Manuscripts (MS Cotton Julius F. VI Fo 331, *olim* 313, reproduced in Haverfield 1910, 358; Hepple 2001, 114). Bainbrigg clearly recorded a dedication by the Second Cohort (COH. II. NERVIO), but Camden's note in the margin of Bainbrigg's letter ('*cohors iii Nerviorum Alione*') indicates that he was minded to read the inscription differently. Consequently, the attribution to the Third Cohort, and the identification of Whitley Castle with *Alione*, persisted, influencing Horsley's *Britannia Romana* (1732) and many subsequent authors including Wallis (1769, 2, 20) and Bruce (1853, 325), although Hodgson (1818, 107) was evidently less convinced. The matter was finally set to rest when Haverfield discovered and published Bainbrigg's original record in 1910, although by this time the identification of Whitley Castle with the *Alione* of the *Notitia*, and also with the *Alone* of the early 3rd-century Antonine *Itinerary*, had long since been called into question (Bainbridge 1855, 37-9).

Imp(eratori) Caes(ari) [di]u[i] L(uci) [Sept(imi) Seueri
Pii Pertinacis Aug(usti) Ara]
bici Adia[benici Parthici]
Max(imi) fil(io) diui Anton[ini] Pi[i] G[erm(anici)]
Sarm(atici) nep(oti) diui Antoni[ni] Pii] pron(epoti)
Hadr(iani) abnep(oti) diui Traian[i]
Parth(ici) et diui Neruae adnep(oti)
M(arco) Aurelio Antonini Pio
Fel(ici) Aug(usto) [P]art(hico) Ma[x(imo)...] I Ma[x(imo)] pont(ifici) ma[x(imo)]
tr(ibunicia) pot(estate) X[VI] imp(eratori) I[I] co(n)s(uli) IIII p(atri) p(atriciae)
pro pietate a[c] deuotione
communi curante [G(aio)
Iulio Marco] leg(ato) Aug(usti)
pr(o) pr(aetore) coh(ors) II Neruio
rum c(iuium) R(omanorum) pos(uit) [d(euota) n(umini) m(aiestati)q(ue) eius]

'For the Emperor-Caesar, son of the deified Lucius Septimus Severus Pius Pertinax Augustus, conqueror of Arabia and Adiabene, Most Great Conqueror of Parthia, grandson of the deified Antoninus Pius, conqueror of Germany, conqueror of Sarmatia, great-grandson of Antoninus Pius, great-great-grandson of the deified Hadrian, great-great-great-grandson of the deified Trajan, conqueror of Parthia, and of the deified Nerva, Marcus Aurelius Antoninus Pius Felix Augustus, Most Great Conqueror of Parthia, Most Great Conqueror of ..., pontifex maximus, in his 16th year of tribunician power, twice acclaimed Imperator, four times consul, father of his country, out of their joint duty and devotion, under the charge of Gaius Julius Marcus, imperial propraetorian legate, the Second Cohort of Nervians, Roman Citizens, devoted to his deity and majesty, set this up.'

PROVENANCE

Bainbrigg recorded the inscription at Whitley Castle in 1601, and it was presumably seen there also by Camden in 1599-1600 (Haverfield 1910, 359). Later antiquarians sought the stone both there and in the collection amassed by Camden's patron, Sir John Cotton, at Conington Castle in Huntingdonshire, but to no avail (Horsely 1732, 2, 250-1, Hepple 2001, 110-12; Taylor 2003, 209). Bainbrigg also formed a collection, at Appleby Grammar School, in part original but mostly consisting of copies (Hepple 2001, 114). This included a facsimile of the Caracalla slab which Horsely saw and transcribed, and which was still to be found at the school in 1945 (Horsely 1732 2, 192, 250; Haverfield 1910, 347; Collingwood and Wright 1965, 394).

LOCATION. Lost.

RIB 1203 PART OF A DEDICATION SLAB (CARACALLA)

DESCRIPTION

Part of a dedication slab drawn by Horsely (1732, 192). No other details.

INSCRIPTION

Brit(annico)]
 Max(imo) Ge[rm(anico) Max(imo)
 Pon]tif(ici) max(imo) trib(unicia) p[ot(estate) XVIII(?)]
 co(n)s(uli) IIII p(atri) p(atriae) pro[co(n)s(uli)...]
 pe[r] milit(es) co[h(ortis) II Neru(iorum)
 [...]

'...Most Great Conqueror of Britain, Most Great Conqueror of Germany, pontifex maximus, in his 19th year of tribunician power, four times consul, father of his country, proconsul [built this building] through the agency of the soldiers of the Second Cohort of Nervians...'

It should be noted that Horsley's transcription ascribed this stone to the Third Cohort of Nervians, presumably to conform with Camden's transcription of the more complete dedication Caracalla stone from Whitley Castle (see above). The RIB give the attribution to the Second Cohort, although all of this is a bit moot, given that the relevant part of the inscription was evidently missing.

PROVENANCE

Horsley (1732, 252) saw the stone 'in a house that stands just at the south entry to the station, and is called *Castle-nook*'. Traces of this house, the predecessor to the present Castle Nook farmhouse, have been identified through the earthwork survey (see section 4.2.2 above). Horsley's report does not state whether this slab formed part of the building or was merely kept within it; in either case, it appears to have been lost following this house's demolition (Hodgson 1840, 74; Bosanquet 1924, 252; RIB 395)

LOCATION. Lost.

RIB I204 BUILDING STONE (see Figure 40)

DESCRIPTION

Building stone with inscription, seen and drawn by Horsley (1732, 250). No other details.

INSCRIPTION

uex(illatio) leg(ionis)
XX V(aleriae) V(ictricis)
Refec(it)

'A detachment of the Twentieth Legion *Valaeria Victrix* rebuilt (this)'



Figure 40. Building stone RIB I204, reproduced from Horsley (1732, 192)

PROVENANCE

Horsely (1732, 250) reported that this stone was 'in the custody of Mr Henry Wallace of Whitley, the proprietor of the ground in which the station has been.'

LOCATION. Lost (after Horsley).

RIB 1205 PART OF A DEDICATION STONE

DESCRIPTION

Right hand lower corner from a millstone grit dedication slab, 279mm wide, 230mm high.

INSCRIPTION (largely reconstructed)

...] resitut(um)

[sub...]co leg(ato)

[Aug(usti) pr(o) pr(aetore)...u(ir) c(larissum.) c]o(n)s(ular...) pr(ouvinciae) Br(itanniae)

'...restored under ...emperor's propraetorian legate...consular governor of the province of Britain.'

(Note: neither the emperor nor the governor are identified)

PROVENANCE

Discovered at Whitley Castle in 1885 (Bruce, Dr 1886, 235). Later given to Tullie House (Carlisle Museum) and transferred to the Black Gate, Newcastle in 1902 (RIB).

LOCATION

Currently held by the Great North Museum, Newcastle.

PATERA AND URCEOLUS ALTAR

DESCRIPTION

Hodgson (1818, 110) describes an altar which he had seen 'over the stable door' of the public house near the fort, on which were carved a patera (shallow dish) and an urceolus (urn or pitcher).

PROVINANCE

The public house mentioned by Hodgson was undoubtedly the same 'ale-house' which

he gave as the location of the Hercules pedestal (RIB 1199) and fragments of the statue around the year 1810 (Hodgson 1818, 108-110). Only one public house is recorded in the vicinity of the fort – the Castle Inn – which stood alongside the turnpike road some 150m to the north of the farm at Castle Nook. This ceased to be an inn between the dates of the first and second editions of the 6-inch map, although the main range and some outbuildings appear to have survived as part of the High Dyke holding and later as Castle Nook Cottage (Ordnance Survey 1865; Ordnance Survey 1898; Ordnance Survey 1951). A thorough exterior inspection of Castle Nook Cottage as it stands today failed to reveal the altar, suggesting that it might have been lost in the process of rebuilding and adaptation. There is, however, a degree of uncertainty about the original location of the altar. Thomas Sopwith (1833, 38), mentions the same altar, but claims that it was ‘..fixed above the stable door at the east end of the farmhouse;...’, by which he clearly meant Castle Nook farm; and when Hodgson referred to his original discovery of the altar in his later volume, he too placed it over the stable door at Castle Nook (Hodgson 1840, 76). Haverfield (manuscript notes cited in Collingwood and Wright 1965, 393) reported finding a small altar at Castle Nook Farm in 1911 which might have been the same item (see RIB 1201), although the lack of any reference to the carvings argues against this. If one or two altars were formerly incorporated in the buildings at Castle Nook, none has visibly survived the alterations to the outbuildings noted on the plans of the fort which Sopwith drew for the 1840 edition of Hodgson’s history and the 1853 edition of Bruce’s Roman Wall, or those seen on the 1862 enclosure map (see Figures 4, 6 and 29).

LOCATION. Unknown.

PEGASUS STONE

DESCRIPTION

Sopwith (1833, 38) mentions ‘a pegasus, or winged horse, rudely carved on a small stone’ built into the wall of one of the outhouses at the farm.

PROVINANCE

Sopwith’s description appears to be the only first hand account of this stone. Hodgson (1840, 76) later referred to a ‘sketch of a stone of the centurial kind made here in 1828, and bearing a rude carving of the Pegasus’ which he appears to have had in his possession. As Hodgson pointed out (*ibid*) the Pegasus was one of the symbols of the Second Legion and could indicate the presence of a detachment or detached officer at some point. The stone is not visible in any of the farm buildings, perhaps as a result of the alterations noted above.

LOCATION. Unknown.

STONE COFFIN AND CARVED HEAD

Hodgson (1818, 07; 1840, 65) is the only authority to mention a stone coffin which had been destroyed or removed from Kirkhaugh churchyard 'some years since'. He also mentioned that a 'carved head nearly opposite the door, in the inside of the church, is perhaps Roman' (1840, 65).

APPENDIX 2. CONCORDANCE AND ARCHIVE

The following statutory designations, National Monuments Record (NMR) and county Historic Environment (HER) entries apply to archaeological features within the survey area.

Whitley Castle Roman fort

Scheduled Monument: Northumberland (ND) 12

NMR No. NY 64 NE 1 (Unique Identifier: I3725)

HER No. N5934

Whitley Castle altars

NMR No. NY 64 NE 2 (UI: I3730)

HER No. N5935

Maiden Way Roman road

NMR No. Linear 224

HER No. N5968

Holymire Barn (bastle)

NMR No. (none)

HER No. N5940

Post medieval quarry (NY 6910 4838)

NMR No. NY 64 NE 52 (UI: 963262)

APPENDIX 3. PERMANENTLY-MARKED SURVEY STATIONS

Permanent markers were placed at two locations within the fort to serve as local GPS base stations and to ensure continuity between the earthwork and geophysical surveys. These markers are described below and their positions are shown on Figure 4I.

Station 1

A metal ground anchor inserted in the level area towards the centre of the mound which represents the tower at the southern corner of the fort.

OS National Grid:	Easting	369478.245
	Northing	548594.326
	Elevation	334.365

Station 2

A metal ground anchor inserted in the highest point on the mound which represents the tower at the western corner of the fort.

OS National Grid:	Easting	369436.416
	Northing	548691.864
	Elevation	332.902

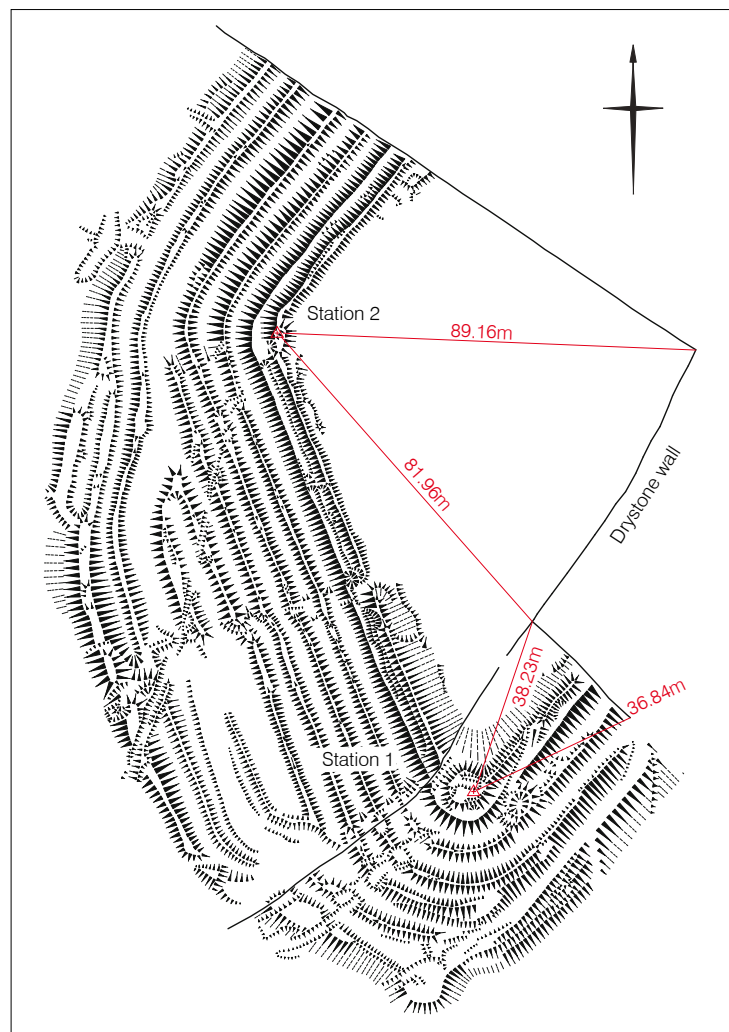


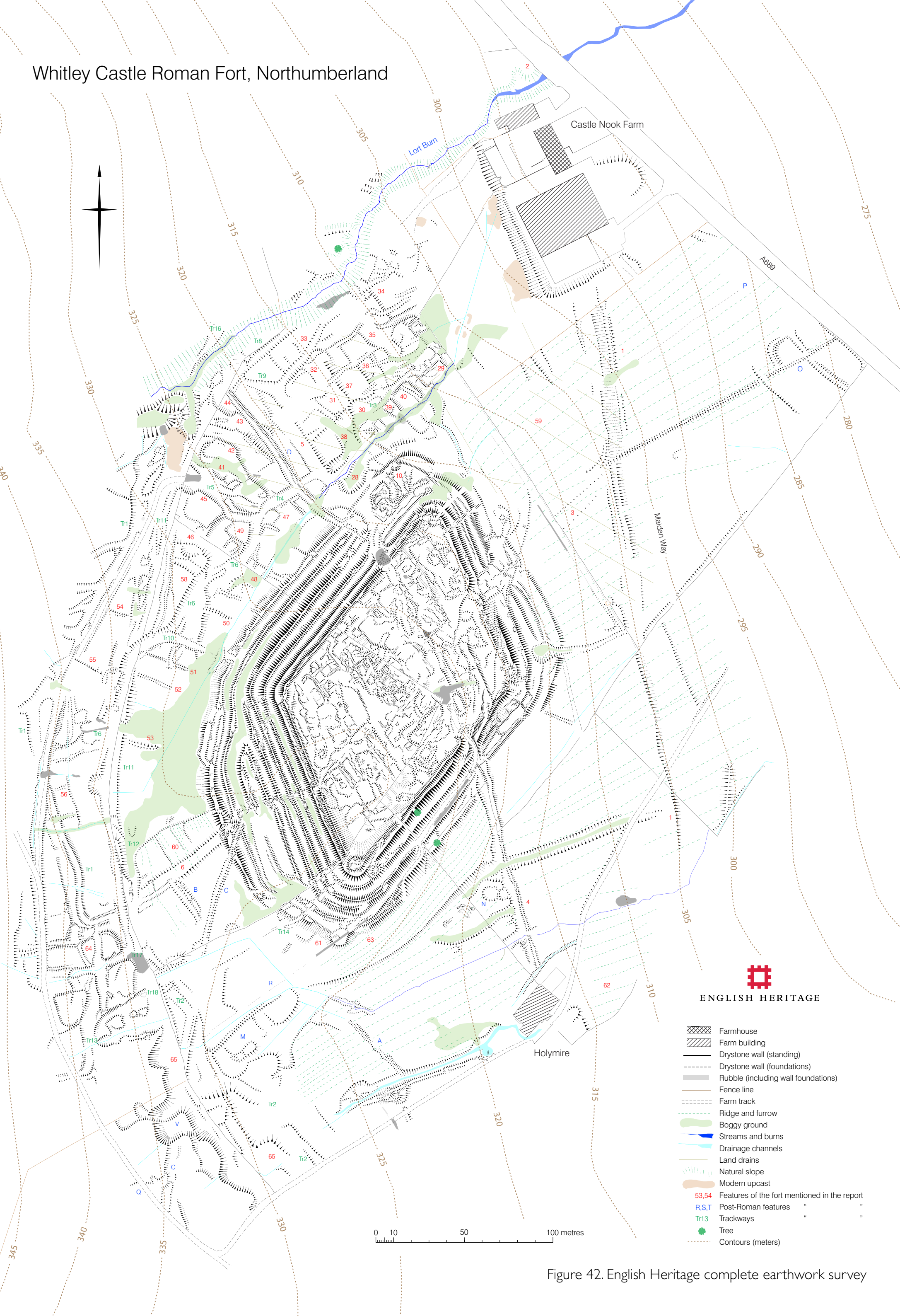
Figure 4I. The locations of the permanent survey markers

Whitley Castle Roman Fort, Northumberland

© ENGLISH HERITAGE

119

89-2009



ENGLISH HERITAGE

- Farmhouse
- Farm building
- Drystone wall (standing)
- Drystone wall (foundations)
- Rubble (including wall foundations)
- Fence line
- Farm track
- Ridge and furrow
- Boggy ground
- Streams and burns
- Drainage channels
- Land drains
- Natural slope
- Modern upcast
- 53,54 Features of the fort mentioned in the report
- R,S,T Post-Roman features
- Tr13 Trackways
- Tree
- Contours (meters)

Figure 42. English Heritage complete earthwork survey

Whitley Castle Roman Fort, Northumberland

© ENGLISH HERITAGE

120

89-2009

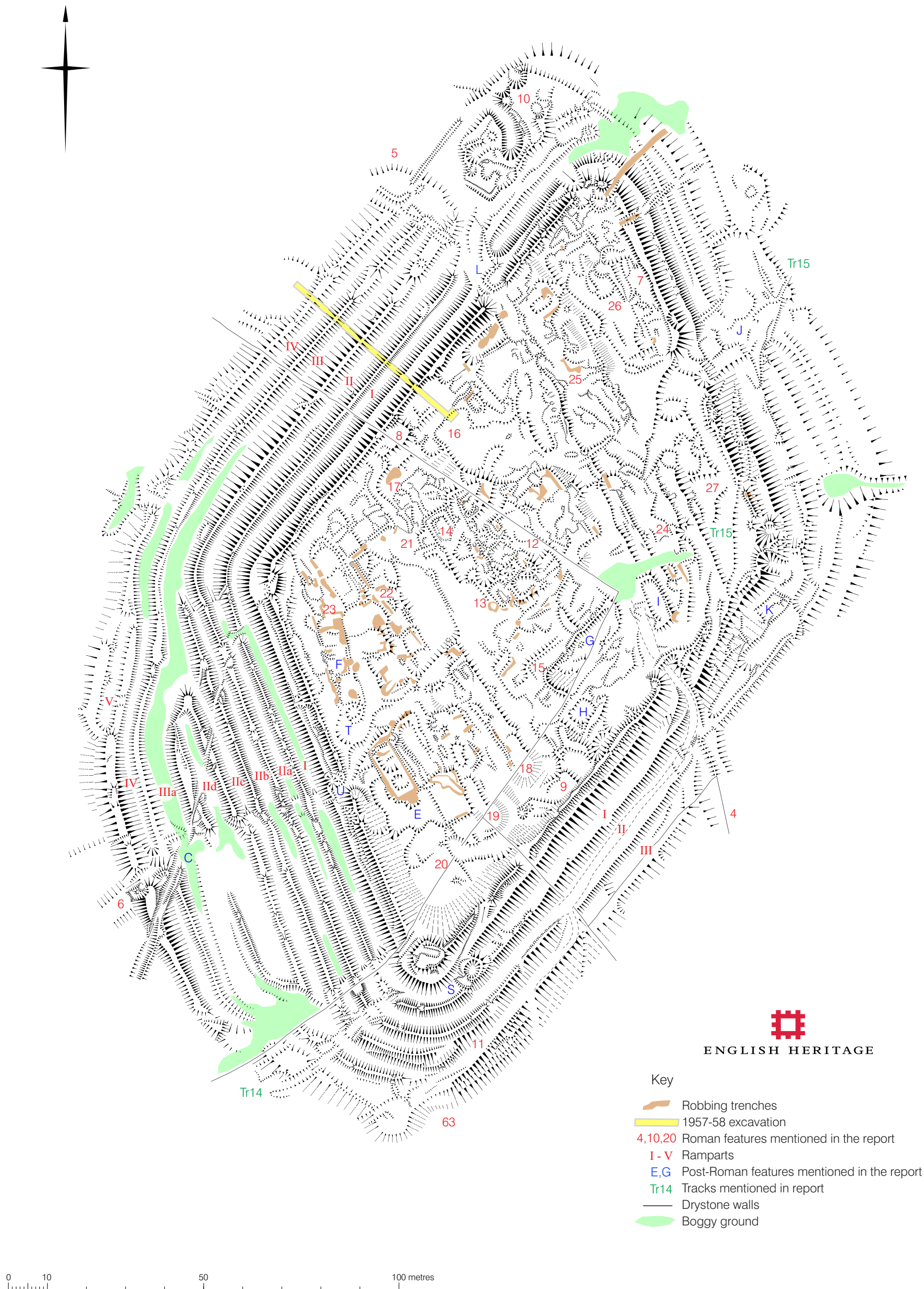


Figure 43. The earthworks of the fort. 1:1000 scale



Figure 44. Durham University geophysical (magnetic) plan (after Hale 2009)



Figure 45. Durham University geophysical (magnetic) plan, with earthworks overlain (after Hale 2009)

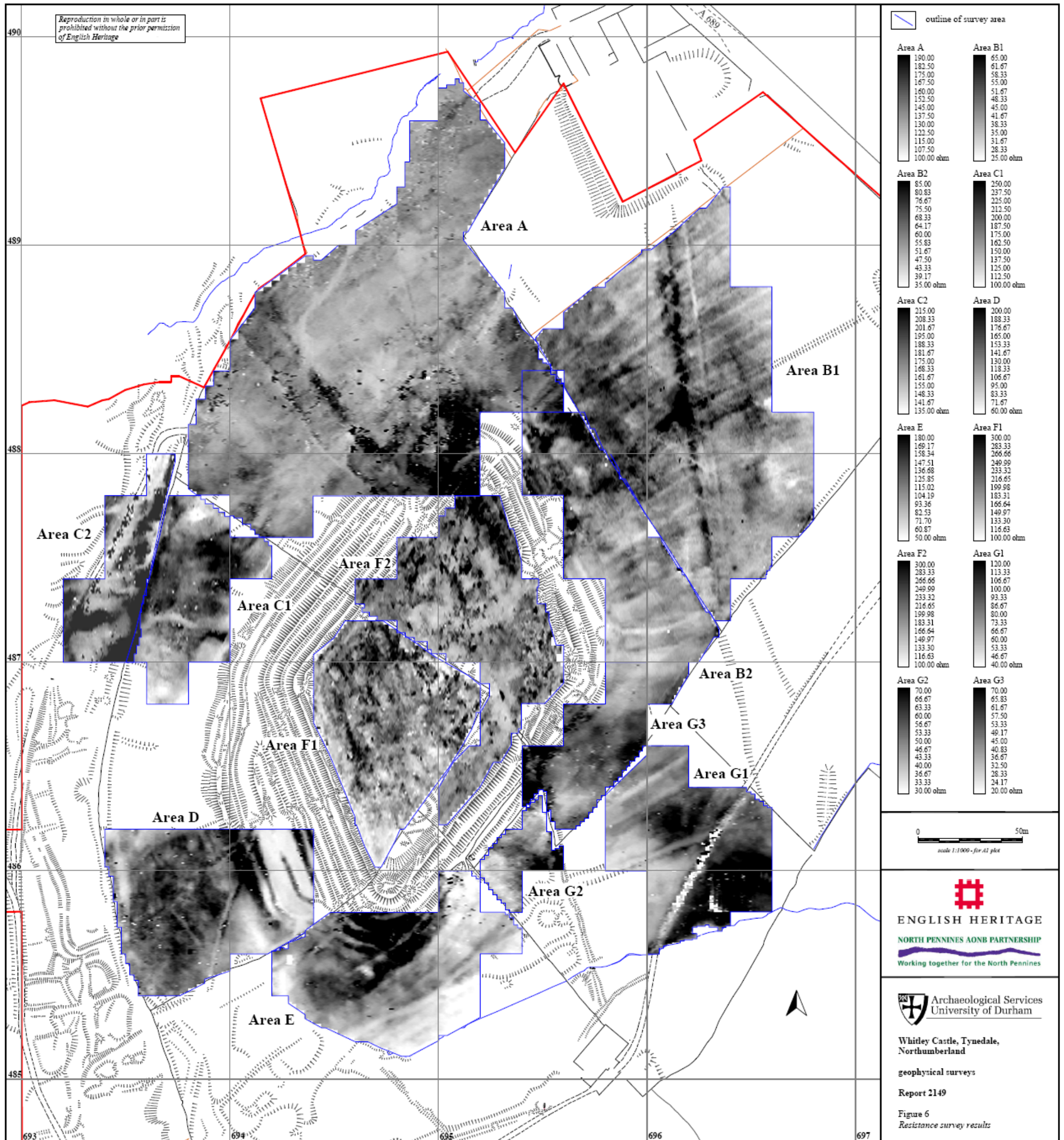


Figure 46. Durham University geophysical (resistance) plan (after Hale 2009)

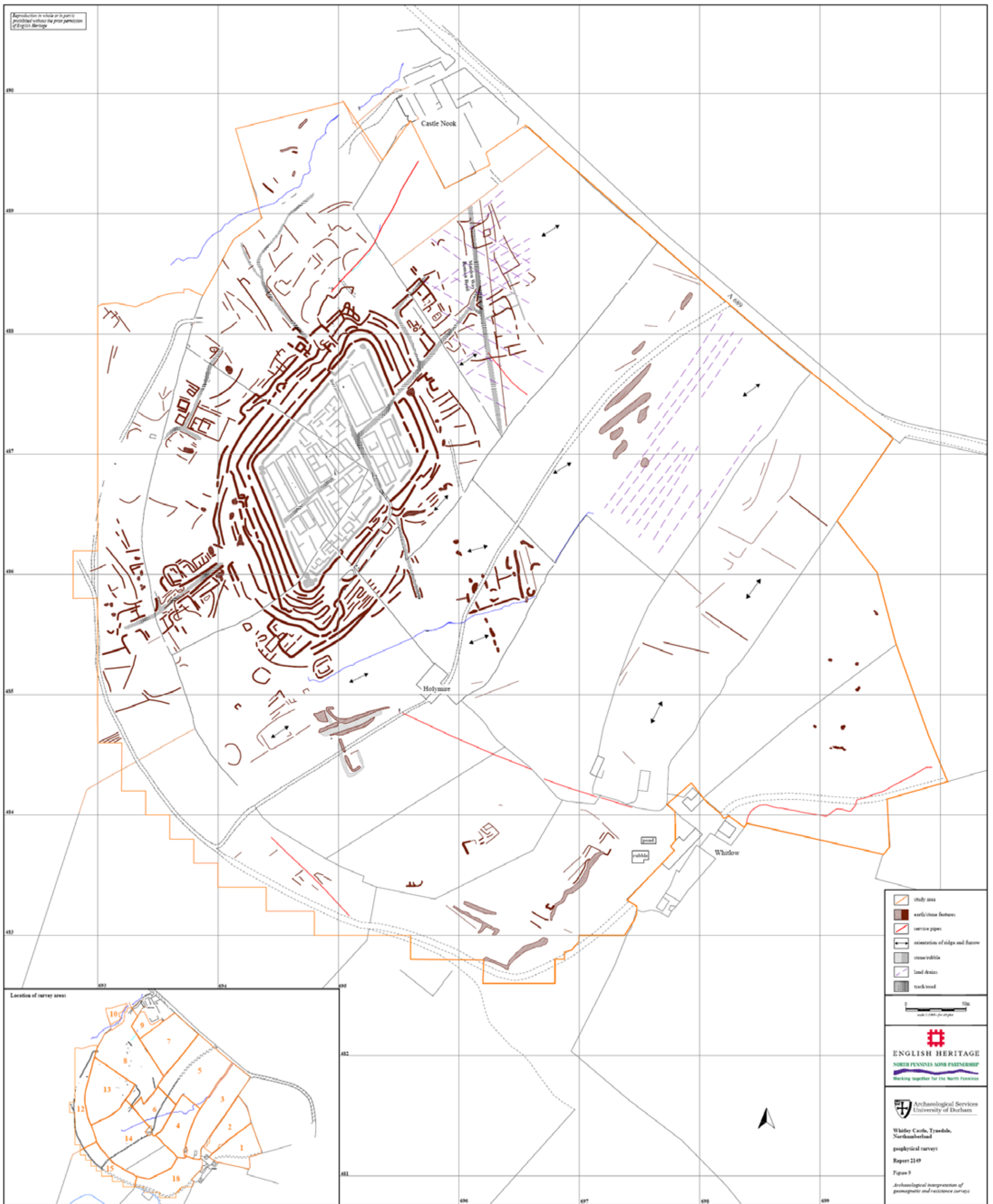


Figure 47. Durham University geophysical interpretation plan (after Hale 2009)



ENGLISH HERITAGE RESEARCH DEPARTMENT

English Heritage undertakes and commissions research into the historic environment, and the issues that affect its condition and survival, in order to provide the understanding necessary for informed policy and decision making, for sustainable management, and to promote the widest access, appreciation and enjoyment of our heritage.

The Research Department provides English Heritage with this capacity in the fields of buildings history, archaeology, and landscape history. It brings together seven teams with complementary investigative and analytical skills to provide integrated research expertise across the range of the historic environment. These are:

- * Aerial Survey and Investigation
- * Archaeological Projects (excavation)
- * Archaeological Science
- * Archaeological Survey and Investigation (landscape analysis)
- * Architectural Investigation
- * Imaging, Graphics and Survey (including measured and metric survey, and photography)
- * Survey of London

The Research Department undertakes a wide range of investigative and analytical projects, and provides quality assurance and management support for externally-commissioned research. We aim for innovative work of the highest quality which will set agendas and standards for the historic environment sector. In support of this, and to build capacity and promote best practice in the sector, we also publish guidance and provide advice and training. We support outreach and education activities and build these in to our projects and programmes wherever possible.

We make the results of our work available through the Research Department Report Series, and through journal publications and monographs. Our publication Research News, which appears three times a year, aims to keep our partners within and outside English Heritage up-to-date with our projects and activities. A full list of Research Department Reports, with abstracts and information on how to obtain copies, may be found on www.english-heritage.org.uk/researchreports

For further information visit www.english-heritage.org.uk

